

Surface Water Supply of the United States 1955

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

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1383

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



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

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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, C. G. Paulsen, chief, under the general direction of J. V. B. Wells, chief, Surface Water Branch, and B. J. Peterson, chief, Annual Reports 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 1955

OCTOBER 1954

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AUGUST 1955

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SEPTEMBER 1955

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SURFACE WATER SUPPLY OF SOUTH ATLANTIC SLOPE BASINS, JAMES RIVER
TO SAVANNAH RIVER, 1955

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, 1955. 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 13,250 gaging stations in the 48 States and at many others in the Territories of Alaska and Hawaii. On September 30, 1955, the Geological Survey and cooperating organizations were maintaining 6,860 gaging stations, including those in Alaska and Hawaii. Discharge measurements only were made at many other points in the 1955 water year, most of which are published at the end of each report. 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, W. A. Blasingame, director.

North Carolina: State Department of Conservation and Development, B. E. Douglas, director; city of Burlington, J. D. Mackintosh, Jr., 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, L. W. Bishop, director; State Water Pollution Control Authority, W. T. Linton, executive director; city of Spartanburg, Defoix Kirby, chairman of commissioners of public works.

Virginia: State Department of Conservation and Development, R. V. Long, director; State Department of Highways, J. A. Anderson, director; city of Norfolk, R. W. Fitzgerald, superintendent, Division of Water Supply; Newport News Waterworks Commission, W. B. Harman, general 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 133 gaging stations, of which 6 were in Georgia, 49 in North Carolina, 28 in South Carolina, and 50 in Virginia.

Assistance was also furnished by the Agricultural Research 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., and Duke Power Co.

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</u>	<u>Address</u>
Georgia <u>a/</u>	Atlanta.....	644 Peachtree-Seventh Building.
North Carolina.....	Raleigh.....	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 Perry Bridge, near Millhaven, and near Clio.

b/ Including Augusta Canal near Augusta, Ga., and Savannah River at Augusta, Ga., at Burtons Perry 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 (cfs/m) 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 indentation in the listing of gaging stations in the table of contents of this report represents one rank. This downstream order and system of indentation 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 nonrecording 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, 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



A. JAMES RIVER AT SCOTTSVILLE, VA.



B. ROANOKE RIVER AT NIAGARA, VA.

FIGURE 1.—GAGING-STATION STRUCTURES.

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 1955 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. If 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 non-recording 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 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 usually given in the first report in which data for the reservoir are published, but it is omitted from succeeding 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 York River.
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.
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 herein. In many of these reports records for years earlier than those indicated have been included for some streams.

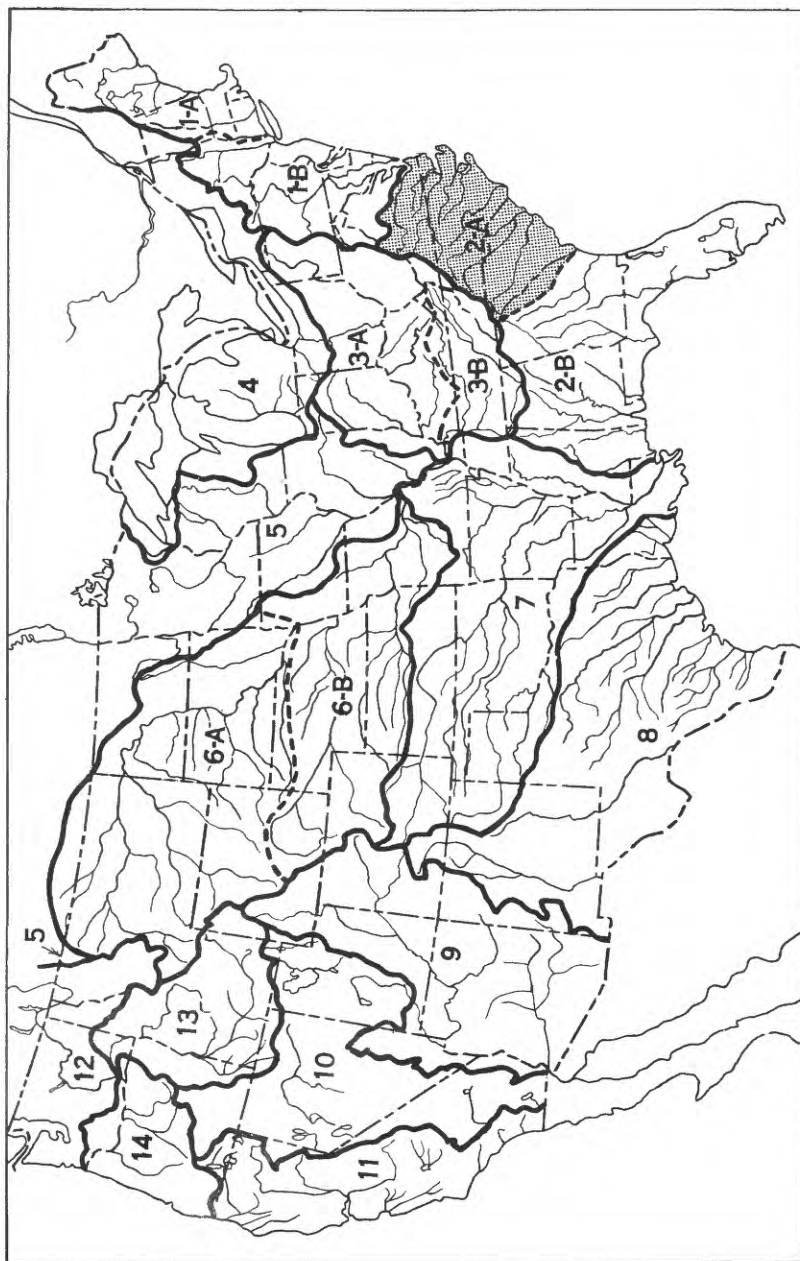


Figure 2.--Map of the United States showing areas covered by the 18 annual volumes on surface water supply. The area covered by this report is shaded.

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 131.....	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, 1899-1955

Year	WSP	Year	WSP	Year	WSP	Year	WSP	Year	WSP
1899	a35, 36	1911	302	1923	562	1934	757	1945	1032
1900	49	1912	322	1924	582	1935	782	1946	1052
1901	65, 75	1913	352	1925	602	1936	802	1947	1062
1902	a82, 83	1914	382	1926	622	1937	822	1948	1112
1903	a97, 98	1915	402	1927	642	1938	852	1949	1142
1904	b126, 127	1916	432	1928	662	1939	872	1950	1172
1905	b167, 168	1917	452	1929	682	1940	892	1951	1203
1906	b203, 204	1918	472	1930	697	1941	922	1952	1233
1907-8	242	1919-20	502	1931	712	1942	952	1953	1273
1909	262	1921	522	1932	727	1943	972	1954	1333
1910	282	1922	542	1933	742	1944	1002	1955	1363

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.	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.

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-I: 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

The drought conditions which prevailed over most of the area covered by this report for the six-month period prior to the beginning of this report were relieved only gradually during the period October to March. An exception occurred in central North Carolina where rains associated with Hurricane Hazel, Oct. 15, caused severe flooding. In April the runoff was near or slightly above median in South Carolina and slightly above median in the Piedmont area of North Carolina and Virginia. Runoff was below median to deficient over most of the area during May, June, and July. The key gaging station Neuse River near Clayton, N. C. was record-low for June since the beginning of record in 1927. During August and September record-high floods occurred in the coastal areas following the passage of hurricane storms, Connie and Diane, in August and Ione in September. These floods are described in Water-Supply Paper 1420 (now in preparation). In spite of the hurricane storms, the runoff for the water year 1955 ranged from near median to deficient. For three key gaging stations in the area covered by this report a comparison of monthly and yearly mean discharges during the 1955 water year with the median discharges for the 25-year period 1921-45 is shown in figure 3 on the following page.

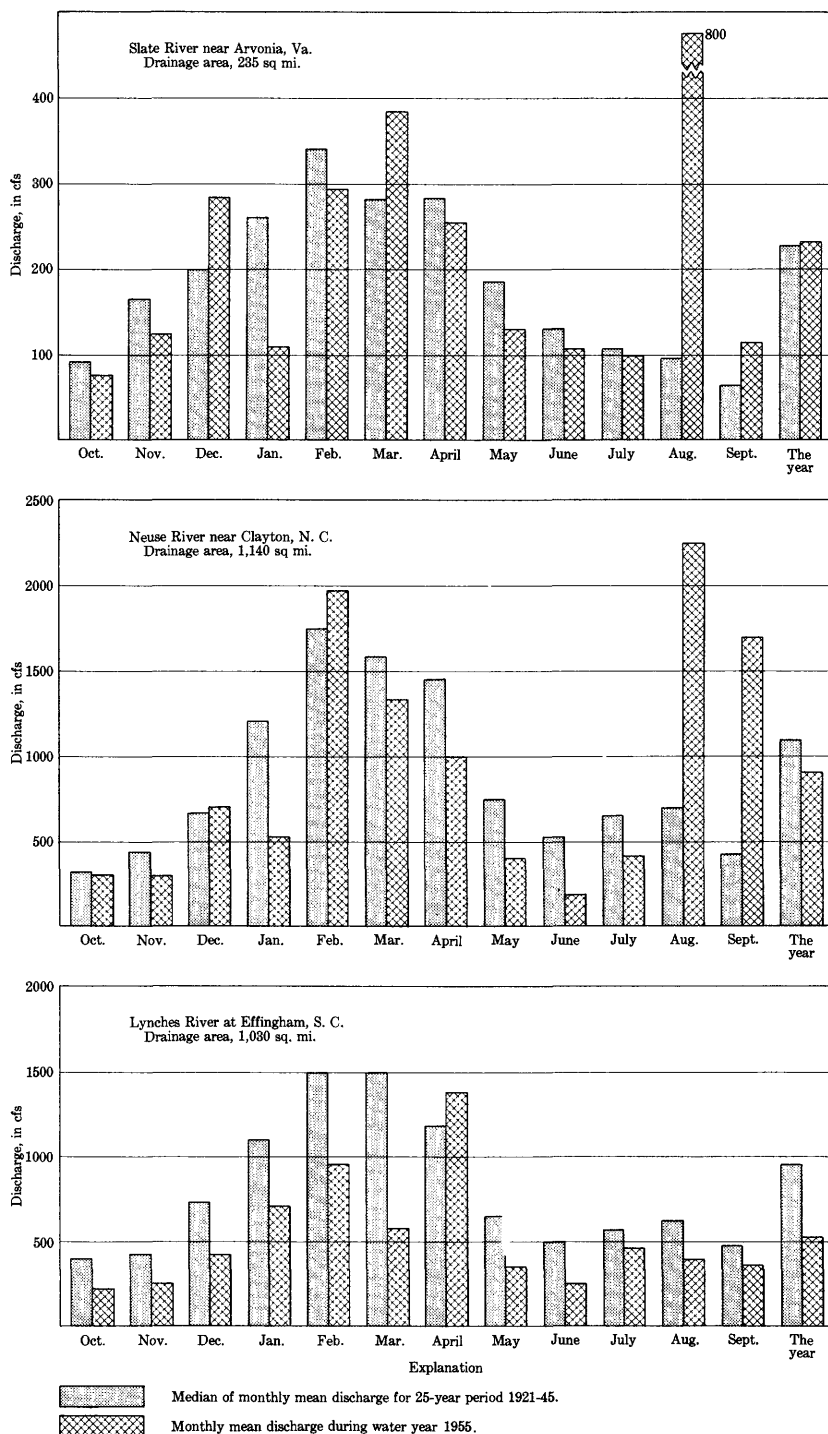


Figure 3. Comparison of discharge at three key gaging stations during 1955 water year with median discharge for 25-year period.

GAGING-STATION RECORDS

JAMES RIVER BASIN

Bolar Spring at Bolar, Va.

Location.--Lat 38°13'05", long 79°40'40", in Highland County, 1,000 ft north of Bolar, which is on county line between Bath and Highland Counties.

Records available.--August 1947, October 1949 to September 1955 (discharge measurements only).

Extremes.--1947, 1949-55: Maximum discharge measured, 17.6 cfs Feb. 3, 1950; minimum measured, that of Oct. 6, 1954.

Remarks.--Discharge measurement generally made once a month 75 ft downstream from source.

Discharge measurements, in cubic feet per second, water year
October 1954 to September 1955

Oct. 6.....	2.97	May 26.....	6.15
Nov. 4.....	5.34	June 15.....	4.98
Jan. 10.....	6.37	July 20.....	3.79
Feb. 7.....	16.3	Aug. 23.....	3.49
Mar. 21.....	11.1	Sept. 16.....	3.26
Apr. 18.....	9.22		

Muddy Run Spring near Warm Springs, Va.

Location.--Lat 38°06'25", long 79°45'05", 2.7 miles upstream from Jackson River and 3.9 miles northeast of intersection of U. S. Highway 220 and State Highway 39 at Warm Springs, Bath County.

Records available.--June 1946 to September 1955 (discharge measurements only).

Extremes.--1946-55: Maximum discharge measured, 12.3 cfs Feb. 3, 1950; minimum measured, 2.21 cfs Sept. 11, 1953.

Remarks.--Discharge measurements generally made once a month 50 ft downstream from spring.

Discharge measurements, in cubic feet per second, water year
October 1954 to September 1955

Oct. 6.....	3.31	May 26.....	5.74
Nov. 4.....	5.30	June 15.....	4.42
Jan. 10.....	6.74	July 20.....	2.99
Feb. 7.....	9.33	Aug. 23.....	4.16
Mar. 21.....	7.79	Sept. 16.....	2.52
Apr. 18.....	8.89		

JAMES RIVER BASIN

15

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 1955.

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

Extremes.--Maximum discharge during year, 8,750 cfs Oct. 15 (gage height, 9.35 ft), from rating curve extended above 4,000 cfs on basis of three slope-area determinations of peak flow; minimum, 5.4 cfs Aug. 4, 5 (gage height, 1.86 ft).
1951-55: Maximum discharge, that of Oct. 15, 1954; minimum, 2.4 cfs Sept. 3, 4, 1953; minimum gage height, 1.73 ft Nov. 7, 8, 1952.

Remarks.--Records good.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 11 June 12 to Sept. 30

2.0	11	4.0	690	1.8	3.1
2.3	33	5.0	1,480	1.9	7.0
2.6	69	6.0	2,480	2.1	18
2.8	114	7.0	3,710	2.6	69
3.0	175	8.0	5,510	3.0	175
3.5	390				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	112	227	634	64	830	140	94	38	17	7.0	9.5
2	17	102	204	445	89	781	131	87	35	16	9.0	9.5
3	27	*92	179	331	123	578	126	79	31	14	6.6	16
4	28	83	156	277	117	536	114	77	28	13	5.4	42
5	22	81	140	240	134	3,960	99	73	27	12	6.2	35
6	*17	77	126	215	978	2,590	92	68	25	12	6.2	27
7	15	77	92	186	*2,320	1,700	92	63	31	13	10	22
8	15	81	89	159	1,010	837	83	60	42	17	9.5	17
9	14	92	123	149	662	548	75	57	47	20	8.5	15
10	14	96	182	*140	428	401	68	53	41	22	7.5	13
11	12	92	169	134	467	345	69	53	57	29	7.0	12
12	12	85	146	114	542	317	79	52	85	23	8.0	11
13	12	79	156	114	550	261	75	73	71	18	19	10
14	12	73	159	102	472	244	267	443	58	15	23	9.0
15	*2,750	69	204	96	256	248	560	560	*52	13	19	8.0
16	1,980	64	197	87	204	418	450	360	46	13	15	*8.5
17	506	62	172	83	317	554	326	260	40	12	15	8.5
18	265	63	396	77	308	554	*260	197	36	11	83	8.0
19	169	179	548	79	265	548	223	*156	32	11	99	7.0
20	109	1,000	385	69	227	450	193	128	00	*11	54	6.2
21	94	1,040	273	69	207	428	169	106	27	11	39	5.8
22	75	662	227	73	227	2,770	153	92	24	9.5	39	5.8
23	64	428	200	71	679	1,620	134	83	24	10	*36	5.8
24	56	317	186	63	844	732	126	73	35	10	32	7.0
25	50	244	156	69	530	489	137	66	35	10	26	8.0
26	46	189	137	66	375	401	126	58	32	8.5	22	8.0
27	51	156	149	60	746	299	120	52	27	7.0	17	8.0
28	66	149	215	44	980	244	114	50	24	7.0	15	8.5
29	87	294	2,360	56	-	211	109	48	20	8.0	14	7.5
30	153	277	3,110	58	-----	182	102	44	18	7.5	12	7.0
31	137	-	1,010	60	-----	159	-----	41	-----	7.0	11	-
Total	6,887	6,415	12,073	4,420	14,301	24,255	4,812	3,706	1,118	407.5	680.9	365.6
Mean	222	214	390	143	511	782	160	120	37.3	13.1	22.0	12.2
Cfsm	1.69	1.63	2.98	1.09	3.90	5.97	1.22	0.916	0.285	0.100	0.168	0.093
In.	1.85	1.62	3.44	1.26	4.06	6.88	1.36	1.06	0.32	0.12	0.19	0.10

Calendar year 1954: Max 4,290 Min 8.9 Mean 205 Cfsm 1.56 In. 21.20
Water year 1954-55: Max 3,960 Min 5.4 Mean 218 Cfsm 1.66 In. 22.56

Peak discharge (base, 1,400 cfs).--Oct. 15 (8 p.m.) 8,750 cfs (9.35 ft); Dec. 30 (7:30 p.m.) 4,170 cfs (7.30 ft); Feb. 6 (11:30 p.m.) 3,500 cfs (6.83 ft); Mar. 5 (9 a.m.) 7,310 cfs (8.77 ft); Mar. 22 (1:30 p.m.) 5,510 cfs (7.96 ft).

* Discharge measurement made on this day.

JAMES RIVER BASIN

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 1955. 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.--30 years, 485 cfs.

Extremes.--Maximum discharge during year, 13,700 cfs Oct. 16 (gage height, 11.86 ft); minimum, 74 cfs Oct. 15 (gage height, 2.94 ft).
1925-55: 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-15				Oct. 16 to Sept. 30			
2.9	66	5.0	765	3.0	80	7.0	2,140
3.3	151	6.0	1,370	3.4	170	8.0	3,180
3.5	204	8.0	3,050	4.0	368	9.0	5,000
4.0	345	9.0	5,000	5.0	810	11.0	10,600

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	288	545	1,740	187	2,080	565	320	158	105	102	102
2	96	264	505	1,300	228	2,050	525	306	150	100	100	98
3	96	*254	457	980	414	1,500	505	292	142	98	100	116
4	105	228	410	810	316	1,400	465	281	138	96	94	155
5	103	222	376	700	320	7,590	422	274	130	93	94	178
6	*92	216	364	628	1,300	7,500	402	260	128	94	94	145
7	84	213	302	565	6,040	5,810	381	250	130	102	98	128
8	82	207	254	509	*2,580	2,580	368	241	150	109	118	116
9	82	207	376	469	1,600	1,820	338	231	165	142	102	109
10	82	213	565	449	1,200	1,360	316	222	162	145	98	105
11		210	493	*426	1,100	1,160	309	216	192	165	102	105
12	80	204	429	391	1,130	1,100	357	213	264	176	102	107
13	78	195	422	364	920	950	341	244	238	130	116	98
14	76	187	465	345	755	838	762	620	201	111	138	94
15	3,200	178	*605	320	675	810	1,360	1,010	*181	107	130	*93
16	6,900	173	585	312	605	1,230	1,200	728	170	102	116	93
17	1,430	165	513	392	675	1,430	920	565	155	98	118	91
18	782	170	883	278	700	1,500	*782	481	145	96	414	91
19	545	355	1,260	267	628	1,500	675	402	136	96	485	89
20	414	1,820	950	257	565	1,260	605	353	135	*96	295	87
21	341	2,260	700	222	525	1,160	545	316	130	94	216	85
22	284	1,570	585	241	521	4,470	517	292	122	93	184	85
23	241	1,040	517	244	1,320	4,510	473	281	116	89	*178	87
24	210	782	495	228	1,820	2,140	445	*800	128	102	162	91
25	187	628	433	207	1,250	1,540	445	241	158	100	148	94
26	173	521	379	204	950	1,330	441	219	152	94	132	93
27	173	441	360	219	1,440	1,070	406	201	138	93	122	89
28	204	410	387	168	2,180	892	379	190	122	96	116	94
29	244	675	2,510	178	-	782	360	184	116	150	111	91
30	334	675	7,080	190	-----	700	338	176	109	120	109	89
31	334		5,000	165	-----	605	-----	165	-----	107	113	-
Total	17,210	14,971	27,203	13,768	31,924	64,627	15,957	10,034	4,563	3,379	4,607	3,098
Mean	555	499	878	444	1,140	2,085	532	324	152	109	149	103
Cfsm	1.36	1.22	2.15	1.09	2.79	5.10	1.30	0.792	0.372	0.267	0.364	0.252
In.	1.57	1.36	2.48	1.26	2.90	5.88	1.45	0.91	0.42	0.31	0.42	0.28
Calendar year 1954: Max			8,500		Min 70		Mean 486		Cfsm 1.19		In. 16.16	
Water year 1954-55: Max			7,590		Min 76		Mean 579		Cfsm 1.42		In. 19.24	

Peak discharge (base, 4,000 cfs).--Oct. 16 (3:30 a.m.) 13,700 cfs (11.86 ft); Dec. 30 (1 p.m.) 8,080 cfs (10.24 ft); Feb. 7 (6:30 a.m.) 8,380 cfs (10.54 ft); Mar. 5 (4 p.m.) 13,300 cfs (11.79 ft); Mar. 22 (10 p.m.) 9,940 cfs (10.79 ft).

* Discharge measurement made on this day.

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 1955.

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--26 years (1929-55), 158 cfs.

Extremes--Maximum discharge during year, 7,770 cfs Mar. 6 (gage height, 10.14 ft); minimum, 11 cfs Sept. 11 (gage height, 0.88 ft).

1928-55: 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 observed, 8 cfs Aug. 27, 28, 30, 1932; minimum gage height, 0.88 ft Aug. 27, 28, 30, 1932, Sept. 11, 1955.

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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 31)

0.9	12	3.0	550
1.0	18	4.0	1,130
1.3	50	5.0	1,840
1.6	98	7.0	3,720
2.0	184	8.0	4,830
2.5	321	10.0	7,620

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	75	156	432	67	2,650	170	82	38	21	22	23
2	25	70	136	301	100	1,650	159	78	35	20	28	22
3	23	*67	118	234	271	740	152	75	33	19	24	23
4	21	63	102	199	216	540	139	72	32	19	20	28
5	20	66	93	182	184	2,890	124	69	29	19	19	26
6	19	70	98	175	1,140	4,940	118	66	28	19	19	24
7	*18	74	84	163	2,740	2,280	116	64	30	19	28	22
8	17	72	77	152	*1,010	860	110	61	33	120	33	21
9	18	69	116	147	540	530	100	58	34	60	27	20
10	18	66	301	140	356	369	94	56	33	54	31	19
11	18	61	239	*138	304	329	96	53	51	83	40	17
12	18	58	186	122	252	414	106	51	80	84	57	18
13	18	56	177	116	212	410	98	60	61	48	44	17
14	18	51	418	108	192	337	222	69	51	36	37	17
15	1,770	49	*710	100	184	348	311	70	*48	30	34	*17
16	1,190	46	418	100	168	1,460	277	63	43	27	31	17
17	242	46	277	98	159	1,130	234	58	39	24	35	17
18	143	45	369	96	145	1,290	204	56	36	22	244	16
19	100	63	465	98	138	1,100	*179	51	34	*20	172	16
20	78	138	318	94	134	628	163	48	33	22	98	16
21	66	260	239	84	126	450	150	45	31	20	67	16
22	56	214	194	94	128	*702	147	46	29	17	53	16
23	50	163	168	94	374	655	132	48	27	17	45	16
24	45	134	152	89	495	446	128	*50	26	26	*39	17
25	42	118	128	84	357	333	124	34	27	24	35	18
26	38	98	110	82	260	329	118	87	30	21	32	17
27	40	89	102	80	1,410	288	106	67	27	18	29	17
28	48	85	100	75	1,460	268	98	57	25	21	27	17
29	72	182	703	77	-	244	93	50	23	24	26	17
30	94	184	1,740	69	-----	214	87	45	22	22	24	17
31	85	770	770	70	-----	189	42	42	-----	21	23	-----
Total	4,430	2,832	9,264	4,093	13,102	28,993	4,354	1,991	1,068	967	1,443	570
Mean	143	94.4	299	132	468	935	145	61.0	35.6	31.2	46.5	19.0
Cfsm	0.861	0.569	1.80	0.795	2.82	5.63	0.873	0.367	0.214	0.188	0.280	0.114
In.	0.99	0.63	2.08	0.92	2.94	6.49	0.97	0.42	0.24	0.22	0.32	0.13

Calendar year 1954: Max 4,590 Min 12 Mean 161 Cfsm 0.970 In. 13.21
Water year 1954-55: Max 4,940 Min 16 Mean 200 Cfsm 1.20 In. 16.35

Peak discharge (base, 2,000 cfs)--Oct. 15 (7 p.m.) 4,830 cfs (8.00 ft); Dec. 30 (8 a.m.) 2,110 cfs (5.29 ft); Feb. 7 (1 a.m.) 4,250 cfs (7.48 ft); Mar. 1 (7 p.m.) 4,250 cfs (7.48 ft); Mar. 6 (8 p.m.) 7,770 cfs (10.14 ft).

* Discharge measurement made on this day.

Potts Creek near Covington, Va.

Location.--Lat 37°44'10", long 80°01'55", near center of span on downstream side of highway bridge, 0.2 mile upstream from Hays Creek and 3.2 miles southwest of Covington, Alleghany County.

Drainage area.--158 sq mi.

Records available.--December 1928 to September 1955.

Gage.--Wire-weight gage and crest-stage indicator; gage read twice daily. Datum of gage is 1,259.23 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to July 1, 1954, chain gage at site 80 ft downstream at same datum.

Average discharge.--26 years (1929-55), 175 cfs.

Extremes.--Maximum discharge during year, 6,460 cfs Mar. 6 (gage height, 9.67 ft); minimum, observed, 24 cfs Oct. 1, 12-14; minimum gage height, 1.13 ft Oct. 1, Sept. 20-24. 1928-55: Maximum discharge observed, 9,710 cfs Jan. 23, 1935 (gage height, 10.10 ft), from rating curve extended above 4,000 cfs on basis of velocity-area studies; minimum, 13 cfs Nov. 29, 1930; minimum gage height, 1.03 ft Sept. 6, 1954.

Remarks.--Records fair.

Revisions (water years).--WSP 727: 1931.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-14		Oct. 15 to Sept. 30	
1.0	17	1.1	23
1.2	28	1.3	42
1.4	53	1.6	90
1.7	122	2.0	193
2.0	224	2.8	500
		4.0	1,260
		6.0	2,690
		9.0	5,760

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	67	86	100	73	2,620	212	110	55	36	31	38
2	224	61	86	432	126	1,920	203	103	51	35	30	36
3	45	*61	86	370	225	980	184	97	48	34	29	54
4	35	60	86	278	122	810	169	94	48	34	28	54
5	30	61	86	242	97	1,920	152	90	45	33	27	43
6	28	62	94	242	1,050	*5,160	141	90	45	33	28	40
7	*27	60	90	215	2,890	3,520	131	86	47	33	29	35
8	58	90	187	187	*1,250	1,260	129	78	55	50	39	33
9	25	61	295	175	660	780	126	72	61	50	41	31
10	25	61	295	169	478	550	119	72	58	41	40	31
11	25	56	260	*156	410	478	122	72	82	48	35	31
12	24	50	126	141	350	500	141	82	103	48	35	31
13	24	50	225	136	295	455	169	86	78	46	40	29
14	24	47	432	124	225	410	690	97	*70	39	38	29
15	1,480	47	*525	117	260	432	660	90	66	35	34	*29
16	*1,340	46	370	112	219	1,610	410	90	60	33	33	28
17	295	48	295	108	199	1,520	350	82	55	32	42	28
18	181	52	330	112	181	1,400	295	80	52	31	780	27
19	129	86	370	101	169	1,050	*260	72	50	*29	295	26
20	101	295	312	78	152	720	225	72	56	31	158	26
21	82	370	242	60	141	910	212	70	58	29	108	25
22	74	225	193	80	169	810	199	74	50	29	82	25
23	64	175	181	86	370	690	178	74	47	29	67	25
24	62	152	175	76	370	550	169	*70	47	33	*62	27
25	58	131	136	67	330	455	166	70	51	35	54	29
26	52	110	117	70	500	455	152	64	54	35	47	27
27	52	103	117	90	1,260	370	136	62	45	30	43	27
28	92	92	122	61	1,400	312	124	61	42	29	40	27
29	80	103	496	61	-	295	122	58	40	31	36	27
30	80	94	*1,610	64	-----	260	122	60	38	29	36	27
31	74	...	1,120	78	-----	225	-----	56	-----	29	39	...
Total	4,858	2,944	9,038	4,790	13,966	33,427	6,468	2,434	1,657	1,099	2,426	948
Mean	157	98.1	292	155	500	1,078	216	78.5	55.2	35.5	78.3	31.6
Cfs/m	0.994	0.621	1.85	0.981	3.16	6.82	1.37	0.497	0.349	0.225	0.496	0.200
In.	1.15	0.69	2.13	1.13	3.29	7.86	1.53	0.57	0.39	0.26	0.57	0.22
Calendar year 1954: Max 4,550 Min 19												
Water year 1954-55: Max 5,160 Min 24												
Mean 185 Cfs/m 1.04 In. 14.20												
Mean 230 Cfs/m 1.46 In. 19.79												

Peak discharge (base, 2,400 cfs).--Oct. 15 (time unknown) 5,960 cfs (9.18 ft); Feb. 7 (time unknown) 3,790 cfs (6.97 ft); Mar. 1 (5:30 p.m.) 3,250 cfs (6.35 ft); Mar. 6 (about 8 p.m.) 6,460 cfs (9.67 ft).

* Discharge measurement made on this day.

Smith Creek above old dam, near Clifton Forge, Va.

Location.--Lat 37°51'10", long 79°50'50", on left abutment of bridge on city of Clifton Forge highway, 0.2 mile upstream from old water-supply dam, 0.8 mile upstream from new water-supply dam, 3.1 miles northwest of Clifton Forge, Alleghany County, and 3.5 miles upstream from mouth.

Drainage area.--12.4 sq mi.

Records available.--May 1947 to September 1955.

Gage.--Staff gage and crest-stage indicator; gage read twice daily. Altitude of gage is 1,406 ft (by barometer).

Average discharge.--8 years, 19.1 cfs.

Extremes.--Maximum discharge during year, 425 cfs Mar. 6 (gage height, 4.75 ft); minimum, 1.7 cfs Oct. 1 (gage height, 1.12 ft).

1947-55: Maximum discharge observed, 1,200 cfs Dec. 7, 1950 (gage height, 7.30 ft); minimum, 1.4 cfs July 31, 1952, Aug. 31 to Sept. 3, 1953, and Sept. 16-18, 1954; minimum gage height, 1.05 ft Aug. 29, Sept. 5, 1948.

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

Revisions.--WSP 1333: Drainage area.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	1.6	1.7	13
1.2	2.2	2.0	35
1.3	3.1	2.5	85
1.4	4.4	3.0	135
1.5	6.3	3.5	185
1.6	9.1	4.0	263

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	4.8	14	63	b7	70	20	8.3	4.3	2.8	2.2	2.4
2	2.9	*4.4	14	49	8.5	75	18	7.7	4.0	2.6	2.1	2.3
3	2.3	4.1	13	36	10	63	16	7.4	3.8	2.6	2.1	4.8
4	2.1	4.1	10	30	31	54	13	7.1	5.4	2.3	2.1	5.2
5	2.0	4.4	8.8	26	53	105	11	6.9	3.1	2.3	2.1	4.1
6	2.0	4.1	8.8	21	79	204	10	6.6	3.1	2.3	2.0	3.6
7	*1.9	4.1	8.3	18	145	155	9.9	6.6	4.0	3.8	2.5	2.9
8	2.0	3.9	9.9	14	*90	85	9.1	6.6	4.1	7.4	2.6	2.7
9	2.1	4.1	18	13	55	63	8.5	6.1	4.1	8.8	2.2	2.6
10	2.1	4.3	28	12	45	50	8.0	5.4	3.8	4.8	2.4	2.6
11	2.1	4.4	25	11	39	42	9.9	5.5	8.3	4.4	2.2	2.6
12	2.1	4.4	21	10	39	33	11	5.7	10	5.9	2.8	2.6
13	2.1	4.6	19	*9.9	b35	29	11	8.3	9.1	4.6	3.1	2.6
14	2.0	4.4	21	9.1	b30	25	105	10	7.7	3.9	2.7	*2.4
15	82	4.1	*21	8.5	23	27	95	9.5	*6.3	3.5	2.6	2.4
16	60	4.1	19	8.0	19	41	80	9.1	5.4	3.1	2.4	2.4
17	14	4.3	16	7.4	16	43	63	8.8	4.6	2.9	5.2	2.4
18	7.4	4.4	22	7.4	13	60	43	8.3	4.1	2.6	21	2.2
19	5.4	28	23	6.9	11	57	33	7.7	4.0	2.6	13	2.1
20	4.3	43	19	6.9	11	51	29	7.1	4.0	*2.6	7.1	2.0
21	3.9	82	21	b7	9.5	47	*24	6.9	3.8	2.4	5.0	2.0
22	3.4	61	18	7.1	11	75	20	7.4	3.5	2.2	4.1	2.1
23	2.9	38	14	6.9	32	*75	16	7.4	3.4	2.1	3.6	2.3
24	2.7	27	11	6.3	41	57	16	6.6	3.2	2.3	3.0	2.4
25	2.7	21	9.5	b6	37	46	13	*6.9	3.1	2.4	2.7	2.5
26	2.7	15	8.8	5.9	33	46	12	6.3	4.6	2.2	*2.6	2.2
27	3.0	12	8.3	5.9	50	39	11	5.5	4.0	2.1	2.6	2.1
28	3.8	11	9.1	b6	55	34	9.5	5.5	3.1	2.0	2.4	2.6
29	5.4	16	65	b6	-	32	8.8	5.2	2.9	2.0	2.4	2.3
30	5.5	14	160	b6	-----	26	8.3	4.6	2.8	2.1	2.4	2.2
31	5.2	95	b6	b6	-----	23	-----	4.6	-----	2.1	2.6	-----
Total	243.7	445.0	758.5	436.2	1,028.0	1,832	742.0	215.6	135.6	99.7	115.8	79.6
Mean	7.86	14.8	24.5	14.1	36.7	59.1	24.7	6.95	4.52	3.22	3.74	2.65
Cfsm	0.634	1.19	1.98	1.14	2.96	4.77	1.99	0.560	0.365	0.260	0.302	0.214
In.	0.73	1.33	2.28	1.31	3.08	5.50	2.22	0.65	0.41	0.30	0.35	0.24

Calendar year 1954: Max 160 Min 1.4 Mean 14.0 Cfsm 1.13 In. 15.31
Water year 1954-55: Max 204 Min 1.7 Mean 16.8 Cfsm 1.35 In. 18.40

Peak discharge (base, 200 cfs).--Oct. 15 (time unknown) 263 cfs (3.95 ft); Dec. 30 (time unknown) 263 cfs (4.05 ft); Mar. 6 (about 5 p.m.) 425 cfs (4.75 ft).

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

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 1955.

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.--30 years (1925-55), 524 cfs.

Extremes.--Maximum discharge during year, 11,600 cfs Mar. 6 (gage height, 11.15 ft); minimum, 69 cfs Oct. 1, 8-15 (gage height, 1.75 ft).

1907-8, 1925-55: 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 except those for period of no gage-height record, which are fair.

Revisions (water years).--WSP 952: 1925(M), 1926-40, 1941(M). WSP 972: 1913(M).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-15				Oct. 16 to Sept. 30			
1.7	60	4.0	1,200	1.7	66	4.0	1,270
2.0	129	5.0	2,050	2.0	138	6.0	3,100
2.5	295	6.0	3,100	2.5	315	8.0	5,800
3.0	525			3.0	548	10.0	9,240

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	210	537	1,810	200	1,940	548	a290	162	120	102	100
2	90	194	462	1,310	210	1,880	511	a280	153	115	95	93
3	97	184	412	955	281	1,430	476	a270	147	110	95	110
4	88	181	372	747	268	1,390	448	a260	138	107	105	194
5	*85	174	341	653	228	4,750	408	a250	135	102	95	239
6	80	168	341	578	1,240	8,320	381	a240	133	102	90	184
7	73	162	311	516	5,800	5,290	372	a240	153	120	90	156
8	69	159	261	a500	1,680	2,670	355	a230	174	125	110	138
9	69	153	377	a450	1,720	1,810	328	a230	224	181	115	130
10	69	147	726	a400	*1,230	1,350	306	a220	221	221	102	120
11	69	144	590	381	1,110	1,110	302	a220	281	232	102	115
12	69	138	462	*359	1,270	1,110	346	a240	1,190	221	98	112
13	69	135	430	333	932	955	363	a300	*699	171	207	*107
14	69	133	*495	324	761	810	1,230	a450	434	141	214	105
15	2,890	135	686	294	692	726	1,940	a400	319	128	181	102
16	8,020	133	686	294	614	1,070	1,470	a370	261	117	138	100
17	1,470	133	566	281	543	1,230	1,070	a350	221	115	185	98
18	659	135	653	265	511	1,390	992	a320	190	107	1,430	93
19	430	208	1,310	261	439	1,510	*796	a300	174	*105	1,590	93
20	328	1,180	992	250	408	1,190	672	281	162	105	627	88
21	265	2,770	672	224	365	1,070	584	261	156	107	363	86
22	228	2,050	506	224	377	3,870	537	250	150	100	245	84
23	204	1,070	490	232	811	5,200	490	559	141	95	a200	88
24	184	740	472	235	1,510	2,260	453	324	138	105	a180	98
25	168	590	412	214	1,150	1,550	a430	*350	162	112	*a160	93
26	156	472	346	204	880	1,350	a380	272	178	110	a140	95
27	153	403	306	210	1,110	1,190	a350	228	153	102	a120	93
28	162	359	298	187	2,050	948	a330	204	135	98	112	90
29	194	472	1,450	194	-	810	a320	190	125	105	107	90
30	245	672	1,100	200	-----	699	a300	194	122	117	102	88
31	242		8,850	204	-----	808	-----	178	-----	110	102	-----
Total	17,064	13,782	26,932	13,289	28,390	62,586	17,488	8,551	7,031	3,906	7,603	3,372
Mean	550	459	869	429	1,014	2,019	583	276	234	126	245	112
Cfsm	1.21	1.01	1.91	0.941	2.22	4.43	1.28	0.605	0.513	0.276	0.537	0.246
In.	1.40	1.13	2.20	1.08	2.31	5.11	1.43	0.70	0.57	0.32	0.62	0.27

Calendar year 1954: Max 8,020 Min 65 Mean 493 Cfsm 1.08 In. 14.69

Water year 1954-55: Max 8,320 Min 69 Mean 575 Cfsm 1.26 In. 17.14

Peak discharge (base, 5,000 cfs).--Oct. 16 (4:30 a.m.), 10,800 cfs (10.76 ft); Dec. 30 (9 p.m.), 8,680 cfs (9.68 ft); Feb. 7 (2 p.m.), 7,100 cfs (8.84 ft); Mar. 6 (12:30 a.m.), 11,600 cfs (11.15 ft); Mar. 23 (6 a.m.), 7,780 cfs (9.15 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement, recorded range in stage, and records for Jackson River at Palling Spring and James River at Lick Run.

Stuart Spring near McDowell, Va.

Location.--Lat 38°29'15", long 79°26'05", on west side of State Highway 614, 5 miles east of McDowell, Highland County.

Records available.--August 1947, October 1949 to September 1955 (discharge measurements only).

Extremes.--1947, 1949-55: Maximum discharge measured, 33.0 cfs Mar. 24, 1953; minimum measured, 1.18 cfs Aug. 28, 1947.

Remarks.--Discharge measurements generally made once a month 300 to 400 ft below source of spring.

Discharge measurements, in cubic feet per second, water year
October 1954 to September 1955

Oct. 4.....	1.95	Apr. 12.....	3.78
Nov. 15.....	2.24	June 30.....	2.74
Feb. 8.....	12.1	Sept. 19.....	1.97

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 1955.

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.--30 years, 1,587 cfs.

Extremes.--Maximum discharge during year, 35,500 cfs Mar. 6 (gage height, 19.50 ft); minimum, 184 cfs Oct. 9 (gage height, 1.52 ft).
1925-55: 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.

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	*830	1,760	6,370	638	10,000	1,860	925	452	337	279	307
2	412	711	1,550	4,350	748	10,800	1,710	890	432	317	269	293
3	318	677	1,420	3,250	1,300	6,200	1,610	825	412	303	283	382
4	276	625	1,260	2,580	1,340	5,250	1,460	795	397	293	274	468
5	*261	612	1,180	2,290	1,180	15,200	1,340	768	387	288	260	520
6	246	592	1,180	2,080	3,580	30,500	1,210	740	382	293	250	467
7	232	586	1,110	1,900	20,800	25,300	1,160	696	422	317	255	377
8	222	566	890	1,680	11,000	10,400	1,120	695	472	347	352	347
9	208	547	1,180	1,550	6,040	6,540	1,060	663	531	331	327	317
10	213	540	2,400	1,460	4,200	4,800	925	614	531	509	307	298
11	213	528	2,240	1,420	3,600	3,900	890	608	685	548	312	288
12	222	514	1,800	1,340	3,750	3,900	1,000	592	1,900	597	372	283
13	217	495	1,640	1,260	2,700	3,460	1,080	652	1,380	499	447	*279
14	222	483	2,030	1,180	2,240	2,970	3,210	825	925	402	447	264
15	7,960	465	3,320	1,100	2,400	2,700	5,560	1,760	718	352	427	255
16	25,000	453	2,840	1,060	1,980	5,100	4,500	1,660	*597	322	367	246
17	5,300	441	2,180	1,020	1,850	6,200	3,390	1,340	531	307	382	241
18	2,460	471	3,000	972	1,980	6,200	2,900	1,120	478	293	2,840	236
19	1,640	823	4,350	958	1,600	6,710	*2,380	962	447	*283	3,600	236
20	1,260	3,830	3,320	935	1,550	4,950	2,080	825	432	288	1,710	231
21	1,020	7,390	2,400	802	1,460	4,200	1,810	768	432	288	1,040	222
22	860	5,980	1,850	809	1,420	8,850	1,710	734	407	269	718	217
23	711	3,390	1,760	860	2,640	15,200	1,580	*825	382	284	580	222
24	606	2,400	1,680	823	5,250	7,390	1,420	795	377	279	515	227
25	547	1,940	1,510	760	3,900	5,100	1,380	795	422	303	457	241
26	477	1,640	1,260	711	2,970	4,350	1,340	724	463	293	*417	241
27	471	1,380	1,140	732	4,350	3,750	1,250	619	427	274	382	236
28	508	1,260	1,140	632	8,950	3,110	1,120	564	387	260	352	236
29	677	1,590	2,270	560	-	2,708	1,040	536	362	274	337	236
30	875	2,080	19,400	632	-----	2,320	1,000	515	347	317	322	231
31	950	-	12,000	495	-----	2,030	-----	478	-----	303	317	-
Total	54,816	43,739	87,060	46,571	105,394	230,060	54,015	25,298	16,537	10,550	19,177	8,664
Mean	1,768	1,458	2,808	1,502	3,764	7,421	1,800	816	551	340	619	289
Cfsm	1.29	1.07	2.05	1.10	2.75	5.42	1.31	0.596	0.402	0.248	0.452	0.211
In.	1.49	1.19	2.36	1.27	2.86	6.25	1.46	0.69	0.45	0.29	0.52	0.24

Calendar year 1954: Max 25,000 Min 180 Mean 1,607 Cfsm 1.17 In. 15.93
Water year 1954-55: Max 30,500 Min 208 Mean 1,923 Cfsm 1.40 In. 19.07

Peak discharge (base, 12,000 cfs).--Oct. 16 (5 a.m.) 31,400 cfs (18.14 ft); Dec. 30 (6 p.m.) 23,300 cfs (15.12 ft); Feb. 7 (2 p.m.) 25,100 cfs (15.84 ft); Mar. 2 (2:30 p.m.) 14,100 cfs (11.25 ft); Mar. 6 (1 a.m.) 35,500 cfs (19.50 ft); Mar. 23 (6 a.m.) 21,000 cfs (14.20 ft).

* Discharge measurement made on this day.

JAMES RIVER BASIN

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 1955.

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.--29 years, 125 cfs.

Extremes.--Maximum discharge during year, 3,760 cfs Mar. 1 (gage height, 9.16 ft); maximum gage height, 10.25 ft Mar. 6; minimum discharge, 6.8 cfs Sept. 21; minimum gage height, 2.43 ft Sept. 21.

1926-55: 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, 6 cfs Dec. 5, 1946 (gage height, 2.72 ft), result of freezeup; minimum daily, 7 cfs Aug. 11, Sept. 3, 6, 7, 1930.

Remarks.--Records good.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 6-8; shifting-control method used Apr. 15-20)

Oct. 1 to Mar. 5

Mar. 6 to Sept. 30

2.4	7	5.0	270
2.8	18	6.0	581
3.1	31	7.0	1,140
3.5	58	8.0	1,980
4.0	110	9.0	3,460
4.5	175		

6.0	581
7.0	1,120
9.0	2,580
10.0	3,420

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3	22	38	334	55	2,760	144	67	22	15	13	13
2	10	*21	38	246	84	1,750	132	84	21	14	13	9.0
3	11	21	37	184	150	622	123	61	19	13	11	18
4	10	20	36	154	109	497	112	59	18	13	10	16
5	*9.6	21	37	143	120	1,200	102	56	17	12	9.3	14
6	8.8	21	40	151	620	*2,740	98	52	17	12	9.3	13
7	8.4	21	45	135	2,140	2,020	95	49	20	11	12	11
8	8.2	20	50	120	846	756	85	47	28	13	16	9.6
9	8.4	19	152	114	*458	472	76	44	30	16	16	8.8
10	8.8	19	361	103	331	356	69	41	25	15	14	8.8
11	9.6	19	147	103	308	295	73	39	36	16	14	8.6
12	9.6	19	110	*91	260	331	96	39	58	17	22	8.8
13	9.6	19	110	86	204	272	84	44	46	17	18	8.2
14	9.9	19	296	75	184	254	463	52	*42	15	14	*8.0
15	*363	19	354	69	166	366	438	56	38	13	14	7.8
16	296	19	*202	69	144	838	318	49	33	12	13	8.0
17	74	21	147	63	133	905	252	42	28	11	29	7.8
18	44	24	194	60	112	935	210	39	25	*10	147	7.6
19	33	32	222	64	101	790	181	36	26	9.3	82	7.8
20	27	56	163	64	94	519	*160	33	46	9.0	42	7.4
21	24	84	129	66	87	422	143	30	38	8.8	26	7.2
22	22	73	109	61	92	818	143	33	27	8.4	21	7.2
23	20	57	112	59	269	574	127	33	23	15	20	7.6
24	19	52	90	56	312	422	118	30	22	18	*17	8.0
25	18	48	76	52	246	334	112	*28	21	15	15	8.6
26	17	42	64	54	200	331	103	26	21	13	14	8.8
27	17	39	63	54	845	268	95	24	19	11	13	8.6
28	17	36	68	60	1,280	240	88	40	17	11	12	8.6
29	21	40	361	56	-	212	80	35	16	18	11	8.6
30	26	40	*1,100	55	-----	180	74	27	16	15	11	8.2
31	24		515	58	-----	159	-----	24	-----	13	13	
Total	1,193.2	962	5,466	3,059	9,950	22,638	4,394	1,299	815	409.5	691.6	282.6
Mean	38.5	32.1	176	98.7	355	730	146	41.9	27.2	13.2	22.3	9.42
Cfsm	0.363	0.303	1.66	0.931	3.35	6.83	1.38	0.395	0.257	0.125	0.210	0.089
In.	0.42	0.34	1.91	1.07	3.49	7.94	1.54	0.46	0.29	0.14	0.24	0.10
Calendar year 1954: Max			2,180		Min 7.8		Mean 91.5	Cfsm 0.863	In. 11.71			
Water year 1954-55: Max			2,760		Min 7.2		Mean 140	Cfsm 1.32	In. 17.94			

Peak discharge (base, 2,100 cfs).--Feb. 7 (4 a.m.) 3,010 cfs (8.73 ft); Mar. 1 (12 p.m.) 3,760 cfs (9.16 ft); Mar. 6 (12 m.) 3,800 cfs (10.25 ft).

* Discharge measurement made on this day.

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 1955.

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.--30 years, 380 cfs.

Extremes.--Maximum discharge during year, 10,100 cfs Mar. 7 (gage height, 12.40 ft); minimum, 35 cfs Oct. 8-11 (gage height, 3.38 ft).

1925-55: 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.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-15

Oct. 16 to Sept. 30

3.3	28	3.3	32	6.0	1,130
3.5	48	3.5	52	8.0	2,900
4.0	128	4.0	138	10.0	5,660
4.5	265	4.5	285	11.0	7,460
5.0	510	5.0	530		
6.0	1,130				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	92	167	1,100	167	3,880	486	213	92	58	60	60
2	65	*88	167	805	185	4,480	442	202	85	58	55	63
3	54	85	162	640	301	2,060	410	194	80	53	52	74
4	53	82	155	530	356	1,580	370	185	76	52	48	98
5	*46	82	152	458	301	2,290	334	178	72	48	45	98
6	41	80	216	436	650	5,660	305	170	69	52	45	84
7	37	80	274	400	4,280	*7,280	291	160	80	53	45	72
8	35	79	222	352	2,900	2,500	278	152	88	53	45	65
9	35	77	263	325	*1,580	1,580	255	145	95	59	59	59
10	35	74	1,060	309	1,060	1,160	235	138	95	76	69	58
11	36	74	722	301	860	920	232	132	117	125	72	58
12	37	72	502	*285	832	920	270	128	180	175	140	56
13	38	72	431	255	640	890	285	140	178	111	100	53
14	38	72	933	245	618	778	1,300	157	*143	85	80	*52
15	690	71	1,540	222	558	778	1,750	162	125	76	76	50
16	*2,610	71	*990	219	475	1,660	1,060	155	113	66	71	48
17	829	72	695	213	420	2,350	805	138	104	60	90	47
18	325	79	612	202	370	1,980	684	128	92	56	751	46
19	259	133	750	205	325	2,300	585	119	87	*51	744	45
20	175	778	651	208	293	1,620	*508	111	88	50	352	42
21	145	690	530	185	274	1,270	436	108	109	48	222	41
22	123	524	415	183	266	1,980	415	109	102	46	162	40
23	109	366	361	199	470	2,400	580	115	87	48	128	39
24	100	293	338	194	920	1,500	352	121	79	56	*108	42
25	92	248	289	185	778	1,130	334	*121	77	102	95	44
26	87	210	248	172	640	1,020	309	115	80	72	84	44
27	84	183	226	175	1,090	890	285	104	77	59	76	44
28	80	170	216	167	2,600	805	259	154	69	55	68	45
29	88	172	618	162	722	722	242	183	63	77	65	44
30	92	172	2,900	175	640	640	226	128	60	63	62	44
31	96		1,800	136	558	558		106		69	60	
Total	6,405	5,341	18,605	9,843	24,209	59,581	14,123	4,471	2,862	2,110	4,129	1,655
Mean	207	178	600	311	865	1,922	471	144	95.4	68.1	133	55.2
Cfsm	0.625	0.538	1.81	0.940	2.61	5.81	1.42	0.435	0.288	0.206	0.402	0.167
In.	0.72	0.60	2.09	1.08	2.72	6.70	1.58	0.50	0.32	0.24	0.46	0.19

Calendar year 1954: Max 7,240 Min 32 Mean 283 Cfsm 0.855 In. 11.61
Water year 1954-55: Max 7,280 Min 35 Mean 420 Cfsm 1.27 In. 17.20

Peak discharge (base, 4,200 cfs).--Oct. 16 (5 a.m.) 4,440 cfs (9.32 ft); Feb. 7 (2 p.m.) 4,940 cfs (9.63 ft); Mar. 2 (3 a.m.) 5,660 cfs (9.95 ft); Mar. 7 (3:30 a.m.) 10,100 cfs (12.40 ft).

* Discharge measurement made on this day.

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 1955.

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.--12 years, 38.4 cfs (adjusted for pumpage since October 1952).

Extremes.--Maximum discharge during year, 1,420 cfs Oct. 15 (gage height, 4.72 ft), from rating curve extended above 620 cfs by logarithmic plotting; minimum, 4.2 cfs Oct. 1 (gage height, 1.33 ft).

1943-55: 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 good. Lone Star Cement Co. pumps about 0.4 cfs below gage and returns it above the gage pool.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.3	3.7	2.3	61
1.4	5.2	2.6	144
1.5	7.0	3.3	275
1.7	13	3.8	518
1.9	24	4.0	695

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	7.0	14	66	14	380	50	25	11	8.0	6.8	8.2
2	8.2	*7.5	13	52	18	201	47	23	11	7.2	6.3	7.5
3	6.6	7.2	12	43	22	124	45	22	10	7.0	5.9	14
4	*5.4	7.0	11	39	19	106	41	21	9.8	7.2	5.4	14
5	4.8	7.5	13	38	19	228	38	20	9.5	7.2	5.4	11
6	4.6	7.2	36	32	224	538	37	18	9.2	6.6	5.4	9.8
7	4.4	7.0	24	27	302	272	34	18	11	8.5	6.8	7.5
8	4.4	6.8	20	24	145	150	32	17	13	8.2	9.0	8.0
9	4.6	6.8	73	23	*90	110	30	16	11	7.8	8.5	7.5
10	4.6	6.6	62	21	69	67	28	15	11	9.8	8.2	7.5
11	4.6	6.6	42	22	66	77	32	14	24	12	7.2	7.0
12	4.6	6.5	34	*20	54	70	41	14	23	10	8.0	6.8
13	4.4	6.3	35	20	48	61	50	19	16	8.8	7.5	6.8
14	4.4	6.3	128	17	42	61	321	18	*12	8.0	6.5	*6.6
15	*4.58	6.3	93	17	39	80	150	16	11	7.2	7.0	6.6
16	100	6.5	*61	17	37	148	100	14	11	6.8	6.5	6.3
17	35	7.2	45	16	34	140	80	14	9.8	6.8	51	6.3
18	22	7.8	52	16	30	163	69	13	9.2	*7.0	110	5.9
19	16	70	47	16	27	148	60	12	9.5	6.6	34	5.7
20	13	69	40	14	26	122	*52	*12	9.8	6.5	19	5.2
21	11	79	34	13	23	106	48	12	9.2	6.3	14	4.9
22	9.5	38	29	14	24	486	45	14	8.5	6.1	11	5.0
23	9.0	27	26	16	57	*217	41	15	8.5	7.0	9.5	5.2
24	8.5	22	23	16	53	140	39	16	9.2	7.5	9.0	5.6
25	8.0	18	21	16	45	111	38	16	9.0	7.0	8.2	6.1
26	7.8	15	19	14	41	103	35	12	9.2	37	8.2	6.1
27	7.5	13	18	16	128	85	32	13	8.2	8.8	7.5	5.9
28	7.2	13	17	14	216	74	30	14	8.0	7.5	7.0	5.7
29	8.2	19	176	14	-	68	28	13	7.8	7.5	7.0	5.4
30	8.9	16	179	13	-	61	28	13	7.5	7.0	6.6	5.4
31	7.5	-	92	12	-	54	-	11	-	6.8	9.2	-
Total	787.4	523.1	1,489	698	1,909	4,771	1,697	491	326.9	285.7	421.6	213.5
Mean	25.4	17.4	48.0	22.5	68.2	154	56.6	15.8	10.9	8.57	13.6	7.12
(†)	-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	Cfsm	In.
25.0	17.0	47.6	22.1
0.735	0.500	1.40	0.650
0.85	0.56	1.61	0.75
67.8	1.99	4.53	1.65
154	5.22	1.84	0.52
15.4	10.5	0.453	0.309
0.453	0.309	0.240	0.388
0.52	0.34	0.28	0.45
6.72	0.198	0.22	

	Observed				Adjusted			
Calendar year 1954:	Max	1,390	Min	3.6	Mean	24.4	Mean	24.0
Water year 1954-55:	Max	538	Min	4.4	Mean	37.2	Cfsm	0.706
							In.	9.57
								14.71

Peak discharge (base, 800 cfs).--Oct. 15 (4 p.m.) 1,420 cfs (4.72 ft); Mar. 6 (2:30 p.m.) 894 cfs (4.21 ft); Mar. 22 (7 a.m.) 790 cfs (4.10 ft); Apr. 14 (4:30 a.m.) 628 cfs (3.93 ft).

* Discharge measurement made on this day.

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

JAMES RIVER BASIN

25

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 1955 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 (revised) 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.--56 years (1898-1912, 1913-55), 2,506 cfs.

Extremes.--1926-27: Maximum discharge during water year, 38,000 cfs Dec. 26 (gage height, 16.0 ft, from graph based on gage reading); minimum, 400 cfs Oct. 1, 2 (gage height, 1.9 ft).

1954-55: Maximum discharge during water year, 48,800 cfs Mar. 7 (gage height, 19.36 ft); minimum, 305 cfs Oct. 9, 10 (gage height, 1.72 ft).
1895-1955: 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, 255 cfs on several days in September 1932 (gage height, 1.60 ft).

Flood in November 1877 reached a stage of 34.9 ft, from floodmark (discharge, about 125,000 cfs).

Revisions.--The maximum discharge for the water year 1927 has been revised to 38,000 cfs Dec. 26, 1956 (gage height, 16.0 ft, from graph based on gage readings), superseding figure published in WSP 642.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Records of water temperatures and sediment loads for the water year 1955 are given in WSP 1400.

Revisions (water years).--WSP 602: 1917-24. WSP 757: Drainage area. WSP 952: 1913(M). WSP 972: 1935-36. See also Records available. Revised figures of discharge for the water year 1927, superseding those published in WSP 642, are given herewith:

Discharge, in cubic feet per second, water year October 1926 to September 1927

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	d1,200	2,090	d6,000	3,080	d4,500	d3,000	d6,500	1,110	690	992	1,240
2	400	d1,100	2,090	d4,500	3,080	d3,500	d10,000	d6,000	1,110	732	1,010	1,090
3	450	d1,000	1,950	d3,500	3,080	d3,000	d9,000	d6,500	1,110	1,430	856	1,080
4	1,190	d950	1,950	d3,000	2,900	d2,700	d6,000	d4,500	1,110	1,600	1,000	1,000
5	1,090	d900	1,810	d2,700	2,900	d2,600	d5,400	d3,500	1,110	1,010	1,550	912
6	1,000	d900	1,810	d2,500	4,190	d2,500	d5,400	d3,000	1,110	808	1,430	956
7	1,000	d900	1,650	d2,200	4,190	d2,500	d5,000	2,400	1,110	792	1,290	856
8	915	d1,000	1,650	d2,000	4,000	d2,500	d4,500	2,240	1,430	760	1,880	800
9	830	d1,100	1,680	d1,700	4,000	d2,500	d5,000	2,240	1,320	718	2,090	776
10	750	1,300	1,950	d1,600	3,810	d2,500	17,400	2,240	1,210	732	2,090	792
11	680	1,420	d2,300	d1,600	3,810	d2,400	14,600	2,090	1,110	732	1,810	776
12	615	1,950	d3,000	d1,500	3,620	d2,300	d10,000	2,090	1,110	732	1,360	792
13	680	1,190	d4,000	d1,500	3,620	d2,200	d17,000	2,090	1,110	768	1,120	808
14	750	1,090	d5,000	d1,500	5,790	d2,200	d6,000	2,090	1,430	776	992	840
15	680	1,090	d4,500	d1,500	5,580	d2,200	6,430	1,950	1,550	753	947	792
16	615	7,000	d3,500	d1,600	4,780	d2,200	4,980	1,950	1,210	808	974	739
17	615	31,400	d3,000	d1,600	4,580	d2,200	4,000	1,810	1,110	832	938	690
18	615	12,300	d3,000	d1,600	5,790	2,240	3,260	1,810	1,110	1,310	1,580	648
19	615	7,810	d3,500	d1,700	20,900	2,090	3,620	1,680	1,010	1,350	1,390	620
20	555	7,570	d2,000	d1,700	30,700	1,950	4,580	1,550	1,010	1,230	3,900	596
21	555	6,650	1,680	d1,700	d15,000	1,810	9,050	1,550	1,010	1,120	4,190	590
22	555	5,580	16,200	d1,700	d10,000	1,680	15,600	1,430	920	1,050	a6,290	578
23	555	4,580	d10,000	d1,700	17,700	1,680	20,900	1,320	920	1,060	a7,820	566
24	830	2,900	d8,000	d1,800	29,400	1,550	16,800	1,210	840	1,640	4,280	560
25	1,300	2,560	d7,000	d2,000	17,700	1,550	10,600	1,210	840	1,120	2,820	554
26	d5,000	2,560	28,700	2,400	9,310	1,550	8,300	1,210	760	904	2,090	548
27	d5,500	3,080	30,700	2,400	7,350	1,430	6,000	1,210	760	816	1,670	542
28	d2,500	2,730	d15,000	2,400	6,000	1,430	4,190	1,210	690	739	1,430	542
29	d1,800	2,400	d10,000	2,730	-	1,320	3,260	1,210	690	739	1,410	530
30	d1,500	2,090	d9,000	3,080	-----	1,320	3,260	1,110	690	725	1,380	524
31	d1,300	-----	d7,000	3,080	-----	1,210	-----	1,110	-----	904	1,430	-----
Total	33,840	117,450	195,770	70,490	236,840	67,310	243,130	74,010	31,610	29,360	64,009	22,337
Mean	1,090	3,920	6,320	2,270	8,460	2,170	7,770	2,390	1,050	947	2,060	745
Cfsm	0.523	1.68	3.03	1.09	4.06	1.04	3.73	1.15	0.504	0.454	0.998	0.357
In.	0.60	2.10	3.49	1.26	4.23	1.20	4.16	1.33	0.56	0.52	1.14	0.40

Calendar year 1926: Max	31,400	Min	400	Mean	21,490	Cfsm	1.19	In.	16.22
Water year 1926-27: Max	31,400	Min	400	Mean	3,220	Cfsm	1.55	In.	20.99
Calendar year 1927: Max	30,700	Min	500	Mean	2,920	Cfsm	1.40	In.	19.04

a No gage-height record; estimated from records for station at Lick Run.
b Doubtful gage-height record; discharge estimated on basis of records for James River at Lick Run, James River at Holcombs Rock and Maury River near Lexington.

JAMES RIVER BASIN

James River at Buchanan, Va.--Continued

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 22 to Dec. 30)

Oct. 1 to Mar. 6				Mar. 7 to Sept. 30			
1.7	296	6.0	5,700	1.7	296	4.0	2,200
2.0	440	10.0	15,800	2.3	630	6.0	5,700
2.5	790	15.0	32,000	3.0	1,140		
3.0	1,230						
4.0	2,280	19.0	47,200				

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	322	*1,120	2,400	9,750	910	16,100	2,860	1,470	749	500	476	494
2	446	1,020	2,120	6,360	1,090	20,400	2,620	1,370	700	476	430	476
3	605	950	1,950	4,710	1,330	11,200	2,400	1,320	665	464	410	526
4	*452	902	1,780	3,710	1,950	8,750	2,260	1,260	630	452	415	714
5	405	878	1,680	3,180	1,680	14,400	2,080	1,230	610	440	410	784
6	380	854	2,000	2,860	2,600	42,800	1,900	1,140	591	425	385	714
7	345	838	1,950	2,580	23,600	43,600	1,840	1,100	598	440	380	685
8	a320	822	1,680	2,340	21,000	19,400	1,730	1,060	728	452	194	572
9	a320	806	1,730	2,170	10,500	11,200	1,680	1,040	756	532	513	488
10	a320	782	3,530	2,060	6,590	8,000	1,520	996	819	735	526	488
11	a320	766	3,800	2,000	5,290	6,140	1,520	959	1,230	819	482	470
12	322	750	2,860	1,900	5,290	5,700	1,730	938	2,250	966	591	440
13	327	726	2,520	1,780	4,160	5,290	1,780	966	*2,140	959	714	*430
14	316	710	*3,180	1,680	3,440	4,620	5,100	1,230	1,520	700	728	415
15	10,900	696	6,140	1,580	3,270	4,250	9,750	2,020	1,180	513	672	400
16	a30,000	675	5,290	1,480	2,860	6,590	7,280	2,020	1,020	513	630	390
17	a10,000	668	3,890	1,480	2,580	10,800	5,290	1,730	840	470	665	385
18	a4,000	710	3,360	1,430	2,520	9,500	4,430	1,470	854	*458	3,880	375
19	a2,500	1,130	5,090	1,380	2,280	11,800	3,800	1,320	756	435	5,920	365
20	a2,000	4,160	5,090	1,380	2,170	9,000	3,180	1,140	700	425	3,180	355
21	a1,500	10,600	3,800	1,290	2,000	6,820	*2,780	1,060	672	425	1,840	340
22	a1,300	9,000	2,860	1,190	1,950	9,500	2,540	1,100	672	415	*1,420	340
23	a1,100	5,090	2,520	1,250	2,720	21,000	2,400	*1,230	630	405	1,060	336
24	a900	3,530	2,400	1,260	6,330	12,200	2,200	1,180	598	435	882	340
25	a800	2,860	2,220	1,210	5,700	8,000	2,080	1,180	552	552	770	350
26	a700	2,340	2,000	1,130	4,340	6,590	1,960	1,100	637	584	714	365
27	a700	2,050	1,780	1,100	5,020	5,700	1,900	988	658	506	637	365
28	a600	1,840	1,680	1,090	13,300	4,800	1,730	917	630	435	684	360
29	a300	1,840	3,280	959	-	4,160	1,620	958	565	430	558	360
30	a1,100	2,460	21,000	968	---	3,710	1,520	903	520	458	546	355
31	1,180		21,100	918	---	3,180	---	812	---	488	572	
Total	75,512	61,583	126,680	68,175	146,470	355,200	85,480	37,207	25,470	16,307	31,484	13,457
Mean	2,436	2,053	4,086	2,199	5,231	11,460	2,849	1,200	849	526	1,016	449
Cfs/m	1.17	0.985	1.96	1.06	2.51	5.50	1.37	0.576	0.407	0.252	0.488	0.215
In.	1.35	1.10	2.26	1.22	2.61	6.34	1.53	0.66	0.45	0.29	0.56	0.24

Calendar year 1954: Max 34,500 Min 279 Mean 2,168 Cfs/m 1.04 In. 14.11
Water year 1954-55: Max 43,600 Min 318 Mean 2,858 Cfs/m 1.37 In. 18.61

Peak discharge (base, 21,000 cfs).--Oct. 16 (time unknown) 37,800 cfs (16.6 ft); Dec. 31 (1 a.m.) 27,800 cfs (13.75 ft); Feb. 7 (10 p.m.) 32,000 cfs (15.05 ft); Mar. 2 (8 a.m.) 22,900 cfs (12.27 ft); Mar. 7 (10:30 a.m.) 48,800 cfs (19.36 ft); Mar. 23 (1 p.m.) 25,400 cfs (13.07 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of high-water mark and records for station at Lick Run.

Karnes Spring near Buchanan, Va.

Location.--Lat 37°35'55", long 79°40'50", 4.7 miles north of Buchanan, Botetourt County.
Records available.--July 1928, August 1947, October 1949 to September 1955 (discharge measurements only).

Extremes.--1928, 1947, 1949-55: Maximum discharge measured, 21.4 cfs July 7, 1953; minimum measured, that of Oct. 4, 1954.

Remarks.--Discharge measurements generally made once a month near mouth of Spring.

Discharge measurements, in cubic feet per second, water year
 October 1954 to September 1955

Oct. 4.....	1.42	May 23.....	4.48
Nov. 1.....	3.16	June 13.....	4.57
Jan. 13.....	6.81	July 18.....	2.24
Feb. 11.....	14.1	Aug. 22.....	5.51
Apr. 21.....	14.1	Sept. 13.....	2.15

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 1955.

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.--16 years, 166 cfs.

Extremes.--Maximum discharge during year, 6,480 cfs Oct. 16 (gage height, 8.58 ft); minimum, 4.2 cfs Oct. 7 (gage height, 1.42 ft).

1939-55: Maximum discharge, 14,800 cfs June 18, 1949 (gage height, 12.14 ft), from rating curve extended above 9,200 cfs by logarithmic plotting; minimum, 1.8 cfs Oct. 9, 1941 (gage height, 1.22 ft).

Remarks.--Records good except those below 30 cfs, which are fair. Discharge given herein includes diversion 50 ft above control by Stillwater Worsted Mill.

Rating table, water year 1954-55 (gage height, in feet, and discharge,
 in cubic feet per second)
 (Shifting-control method used Mar. 9-21, June 25 to Aug. 18)

1.3	3.0	2.2	25	3.0	150	5.0	1,270
1.5	5.1	2.4	40	3.4	310	6.0	2,280
1.8	10	2.6	65	4.0	640	7.0	3,770

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	38	168	530	29	492	138	79	27	18	11	25
2	10	36	148	348	31	475	128	74	25	16	10	23
3	7.4	36	132	240	34	392	118	68	23	15	24	33
4	6.5	*34	116	188	24	376	109	65	22	14	38	51
5	5.8	33	104	160	25	2,710	98	62	21	14	31	57
6	5.1	31	102	140	334	2,500	90	58	19	13	27	48
7	*4.4	29	86	123	1,960	1,920	84	54	21	14	26	39
8	4.7	28	72	107	790	808	79	51	96	21	26	33
9	4.8	27	90	96	497	546	72	47	104	25	22	39
10	5.1	26	178	*88	*354	398	65	43	68	24	21	26
11	5.1	25	185	84	338	326	65	40	140	58	20	24
12	5.0	24	154	77	300	290	79	37	546	41	42	*22
13	5.0	24	145	72	250	248	77	44	295	26	64	21
14	5.1	23	138	64	210	216	254	96	178	22	61	19
15	1,050	23	150	61	180	206	602	206	128	19	44	18
16	2,250	23	157	58	145	236	475	192	*98	16	33	17
17	380	22	150	52	154	240	332	154	75	14	31	17
18	182	23	270	48	140	285	260	130	59	13	2,910	16
19	123	163	530	46	125	326	213	109	50	13	910	13
20	94	1,240	370	43	114	316	185	94	43	13	360	13
21	75	2,440	265	37	107	*348	160	84	37	*12	188	12
22	62	820	228	38	102	2,170	*148	80	32	9.8	128	12
23	52	426	196	38	224	1,270	132	88	28	9.8	102	12
24	44	270	145	36	404	640	123	75	28	12	79	13
25	42	196	125	30	338	451	114	65	27	12	61	14
26	33	150	107	26	260	354	111	*58	27	12	50	13
27	30	123	94	32	338	270	104	49	23	12	43	12
28	30	114	88	23	502	228	96	43	22	10	41	12
29	37	171	450	24	-	202	90	38	21	14	31	12
30	46	185	*3,290	27	-----	174	84	34	19	12	28	11
31	42	1,000	20	-----	154	-----	30	-----	12	27	-----	-----
Total	4,633.4	6,803	9,433	2,956	8,309	19,547	4,685	2,347	2,302	536.6	5,489	667
Mean	149	227	304	95.4	297	631	156	75.7	76.7	17.3	177	22.2
Cfsm	1.01	1.54	2.07	0.649	2.02	4.29	1.06	0.515	0.522	0.118	1.20	0.151
In.	1.16	1.72	2.39	0.75	2.10	4.95	1.18	0.59	0.58	0.14	1.38	0.17

Calendar year 1954: Max 5,260 Min 4.3 Mean 184 Cfsm 1.25 In. 16.92
 Water year 1954-55: Max 3,290 Min 4.4 Mean 186 Cfsm 1.27 In. 17.11

Peak discharge (base, 2,500 cfs).--Oct. 16 (2 a.m.) 6,480 cfs (8.58 ft); Nov. 21 (10 a.m.) 4,250 cfs (7.28 ft); Dec. 30 (11:30 a.m.) 4,570 cfs (7.51 ft); Feb. 7 (4:30 a.m.) 2,920 cfs (6.43 ft); Mar. 5 (1:30 p.m.) 5,080 cfs (7.76 ft); Mar. 22 (3:30 p.m.) 3,610 cfs (6.88 ft); Aug. 18 (1 p.m.) 5,080 cfs (7.83 ft).

* Discharge measurement made on this day.

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 1955. 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.--26 years (1929-55), 364 cfs.

Extremes.--Maximum discharge during year, 9,200 cfs Oct. 16 (gage height, 8.40 ft); minimum, 19 cfs Oct. 7, 8; minimum gage height, 0.98 ft Oct. 7, 8.

1928-55: 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 good.

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

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 7-22)

0.9	17	1.6	116	5.0	2,370
1.0	22	2.0	250	6.0	3,650
1.2	38	3.0	770	7.0	5,500
1.4	69	4.0	1,480	8.0	8,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	119	390	1,320	98	1,220	395	197	69	41	32	58
2	39	114	350	955	124	1,220	355	182	64	38	34	56
3	26	114	299	704	138	970	326	172	58	37	35	89
4	23	*101	262	584	108	970	290	163	55	36	65	133
5	22	96	238	501	108	4,390	258	153	53	35	51	116
6	22	91	258	435	1,020	6,070	242	138	50	34	47	98
7	19	87	200	370	4,620	4,900	234	133	55	35	51	87
8	*20	80	175	312	1,860	2,000	207	124	234	82	71	71
9	20	76	290	282	1,180	1,360	193	116	294	71	51	65
10	20	71	540	262	*865	1,000	179	108	182	76	47	60
11	21	67	474	250	800	900	179	104	453	87	42	56
12	21	69	385	227	748	830	274	101	1,140	147	87	*51
13	20	69	370	215	589	682	266	111	677	89	250	48
14	21	65	375	*189	550	594	1,040	189	415	64	215	46
15	2,260	65	506	162	518	567	1,680	360	282	56	150	44
16	*4,070	65	501	186	430	728	1,220	340	207	48	106	43
17	728	65	446	166	390	699	935	274	*160	44	101	43
18	375	71	811	153	322	800	865	227	127	41	4,510	38
19	242	508	1,220	153	278	865	682	189	108	36	1,840	37
20	175	2,430	830	138	258	800	584	163	98	38	734	35
21	138	4,880	616	122	234	*865	501	144	89	*35	415	34
22	116	1,800	484	133	242	4,020	*468	147	76	33	278	34
23	96	970	415	130	712	2,910	*400	215	65	32	211	34
24	84	688	375	119	900	1,480	365	182	65	34	160	35
25	76	523	308	111	746	1,040	335	153	60	37	124	37
26	69	395	254	104	616	970	317	*130	65	38	106	37
27	69	312	227	114	870	752	282	108	56	38	91	35
28	75	282	219	91	1,180	655	258	98	48	32	82	35
29	116	474	1,220	94	-	584	230	91	46	42	73	35
30	144	454	5,830	94	----	506	211	84	44	41	67	33
31	130	-	2,320	98	----	440	----	76	----	38	62	33
Total	9,279	15,201	21,188	8,774	20,522	45,787	13,771	4,972	5,395	1,535	10,195	1,623
Mean	299	507	683	283	733	1,477	459	160	180	49.5	329	54.1
Cfs/m	0.909	1.54	2.08	0.860	2.23	4.49	1.40	0.486	0.547	0.150	1.00	0.184
In.	1.05	1.72	2.40	0.99	2.32	5.18	1.56	0.56	0.61	0.17	1.15	0.18

Calendar year 1954: Max 9,400 Min 19 Mean 408 Cfs/m 1.24 In. 16.82
Water year 1954-55: Max 6,070 Min 19 Mean 434 Cfs/m 1.32 In. 17.89

Peak discharge (base, 4,500 cfs).--Oct. 16 (2 a.m.) 9,200 cfs (8.40 ft); Nov. 21 (11 a.m.) 7,400 cfs (7.78 ft); Dec. 30 (12:30 p.m.) 7,150 cfs (7.71 ft); Feb. 7 (4 a.m.) 6,410 cfs (7.40 ft); Mar. 6 (10 p.m.) 8,900 cfs (8.27 ft); Mar. 22 (4:30 p.m.) 6,290 cfs (7.23 ft); Aug. 18 (2 p.m.) 8,000 cfs (7.95 ft).

* Discharge measurement made on this day.

Big Spring at Kerrs Creek, Va.

Location.--Lat 37°50'50", long 79°28'30", 1.3 miles east of town of Kerrs Creek, Rockbridge County.

Records available.--August 1947, October 1949 to September 1955 (discharge measurements only).

Extremes.--1947, 1949-55: Maximum discharge measured, 9.41 cfs Apr. 9, 1951; minimum measured, 3.60 cfs Jan. 7, 1954.

Remarks.--Discharge measurements generally made once a month at bridge on State Highway 623.

Discharge measurements, in cubic feet per second, water year October 1954 to September 1955

Oct. 8.....	3.94	Feb. 11.....	8.10	June 16.....	5.74
Nov. 5.....	4.80	Mar. 24.....	6.30	July 21.....	4.53
Jan. 14.....	5.34	Apr. 21.....	6.05	Sept. 12.....	4.16
		May 27.....	6.43		

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 1955 (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.--25 years (1930-55), 33.0 cfs.

Extremes.--Maximum discharge during year, 2,480 cfs Oct. 15 (gage height, 7.18 ft), from rating curve extended above 570 cfs on basis of records for former site 1,000 ft downstream and logarithmic plotting; minimum, 5.4 cfs Oct. 8, 12, 13, 14; minimum gage height, 2.40 ft Oct. 8, 12, 13, 14.
1927-55: Maximum discharge, 23,000 cfs Sept. 10, 1950 (gage height, 13.8 ft), from rating curve extended above 800 cfs on basis of 1 slope-area determination of gage height 9.3 ft, and 1 contracted-opening and 1 slope-area determination at gage height 13.8 ft; minimum, 4 cfs on many days in August and September 1932, Sept. 12, 1934, July 17, Nov. 21, 1938. Extremes in this paragraph refer to site and datum then in use.

Remarks.--Records good.

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

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.3	5.0	3.3	80
2.4	6.0	4.0	250
2.6	11	5.0	590
2.8	20	6.0	1,250
3.0	37		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	11	20	78	15	205	43	25	12	9.2	8.9	8.6
2	6.0	11	19	59	20	138	39	24	11	8.9	9.0	8.3
3	5.9	11	18	48	19	101	37	23	11	8.6	7.8	15
4	5.8	11	17	42	16	110	35	22	11	8.3	7.4	13
5	5.7	*11	16	37	15	334	33	21	11	8.3	7.4	10
6	5.6	9.8	20	28	415	966	32	20	11	9.8	7.6	9.5
7	5.6	9.5	16	31	304	288	31	19	13	20	9.2	8.6
8	*5.5	9.5	14	29	135	162	28	19	16	38	9.8	8.3
9	*5.5	9.2	24	28	88	114	27	18	13	27	9.5	8.0
10	5.5	8.9	28	26	63	90	26	17	12	17	9.2	8.0
11	5.5	8.6	23	27	*65	88	31	17	43	18	9.8	8.0
12	5.4	8.6	21	24	49	73	41	16	30	14	12	*8.0
13	5.4	8.3	23	23	56	60	33	20	21	12	37	8.0
14	5.4	8.3	*35	*20	39	55	218	20	17	11	15	8.0
15	480	8.0	59	22	38	56	130	17	15	10	13	8.0
16	77	8.0	42	22	36	80	90	16	*14	9.8	12	7.8
17	31	8.3	35	20	33	66	84	16	13	9.8	19	7.8
18	21	10	68	19	30	110	78	15	12	8.9	88	7.6
19	16	107	59	20	28	91	63	15	12	8.6	34	7.6
20	14	132	45	18	26	75	55	14	12	8.6	22	7.4
21	13	277	35	17	25	84	50	14	12	*8.3	16	7.4
22	12	80	31	18	28	936	*47	16	11	7.8	14	7.4
23	11	49	29	18	80	155	41	17	10	7.8	13	7.6
24	10	41	27	17	57	110	38	15	10	10	11	8.3
25	9.8	32	24	16	49	90	36	15	11	12	10	8.3
26	8.5	27	21	16	44	90	33	14	12	8.6	10	7.8
27	10	24	20	16	101	68	32	*13	10	7.8	9.5	7.6
28	10	23	20	14	93	60	29	13	9.8	9.8	9.2	8.6
29	17	26	253	14	-	56	27	13	9.5	11	8.9	7.8
30	14	22	301	14	----	49	26	13	9.5	8.9	8.9	7.6
31	12	-	122	13	---	45	---	12	---	8.9	9.5	-
Total	845.9	1,010.0	1,485	794	1,967	5,003	1,513	529	414.8	366.7	466.6	253.9
Mean	27.3	33.7	47.9	25.6	70.2	161	50.4	17.1	13.8	11.8	15.1	8.46
Cfsm	0.803	0.991	1.41	0.753	2.06	4.74	1.48	0.503	0.406	0.347	0.444	0.249
In.	0.93	1.11	1.63	0.87	2.14	5.46	1.65	0.58	0.45	0.40	0.51	0.28

Calendar year 1954: Max 1,220 Min 5 Mean 30.3 Cfsm 0.891 In. 12.11
Water year 1954-55: Max 966 Min 5.4 Mean 40.1 Cfsm 1.18 In. 16.01

Peak discharge (base, 600 cfs)--Oct. 15 (2:30 p.m.) 2,480 cfs (7.18 ft); Nov. 21 (2 a.m.) 810 cfs (5.38 ft); Dec. 29 (1:30 p.m.) 1,020 cfs (5.68 ft); Feb. 6 (5 p.m.) 1,250 cfs (6.02 ft); Mar. 6 (12 m.) 2,160 cfs (6.97 ft); Mar. 22 (4 a.m.) 615 cfs (5.06 ft).

* Discharge measurement made on this day.

JAMES RIVER BASIN

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 1955. 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.--27 years (1928-55), 513 cfs.

Extremes.--Maximum discharge during year, 10,300 cfs Oct. 15 (gage height, 11.80 ft); minimum, 48 cfs Oct. 8, 9 (gage height, 1.85 ft).
1925-55: 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.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-14		Oct. 15 to Sept. 30			
1.8	45	2.0	76	4.0	835
1.9	52	2.2	113	5.0	1,470
2.1	85	2.5	188	7.0	3,360
		3.0	365	10.0	7,400

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	182	505	1,780	180	1,620	585	335	142	107	91	124
2	76	171	483	1,280	217	1,680	539	319	135	103	*83	117
3	72	177	413	950	223	1,300	509	300	131	99	86	152
4	58	160	373	808	177	1,300	467	289	122	97	99	207
5	54	160	338	685	174	4,600	426	278	120	97	109	185
6	*52	152	369	610	1,790	7,400	405	260	115	93	97	166
7	51	145	*300	530	5,700	6,260	393	246	124	105	142	148
8	48	135	260	463	2,760	2,800	357	236	416	189	204	128
9	48	135	369	426	1,620	1,860	338	227	397	163	128	120
10	51	133	710	397	1,160	1,400	323	214	555	177	107	115
11	51	*120	595	393	1,070	1,200	331	210	513	194	101	113
12	51	120	509	357	1,010	1,100	484	204	1,360	*246	115	109
13	51	120	484	342	780	920	438	214	920	171	335	99
14	51	117	501	316	752	780	1,200	278	575	135	331	95
15	2,200	113	615	300	710	752	2,000	401	426	122	243	93
16	5,670	113	680	304	610	920	1,660	413	*335	111	180	91
17	1,130	113	605	282	562	890	1,260	357	267	103	177	90
18	544	120	920	264	488	1,010	1,220	316	230	97	4,290	88
19	365	513	1,510	257	438	1,100	980	278	204	93	2,570	84
20	285	3,240	1,100	*246	405	1,010	835	250	188	90	950	79
21	233	5,560	808	220	377	980	720	230	177	90	557	*78
22	201	2,800	630	233	377	4,610	675	233	160	86	397	76
23	174	1,330	566	230	882	3,720	590	304	145	83	319	78
24	158	920	513	214	1,160	2,080	544	265	142	84	260	79
25	145	700	442	201	1,010	1,470	509	246	135	93	210	84
26	138	544	381	191	808	1,330	484	217	148	93	185	83
27	133	450	346	204	1,010	1,070	450	*194	133	90	163	79
28	140	413	331	166	1,510	920	413	177	122	86	150	81
29	185	562	1,460	174	---	835	377	168	113	91	142	81
30	230	575	6,680	171	---	725	354	168	111	97	133	76
31	210		3,150	150	---	650	---	152	---	93	138	
Total	13,106	19,893	26,906	13,124	27,900	58,272	19,866	7,999	8,659	3,578	13,042	3,198
Mean	423	663	868	423	996	1,860	662	258	289	115	421	107
Cfsm	0.869	1.36	1.78	0.869	2.05	3.86	1.36	0.530	0.593	0.238	0.864	0.220
In.	1.00	1.52	2.05	1.00	2.14	4.45	1.52	0.61	0.66	0.27	1.00	0.25

Calendar year 1954: Max 9,920 Min 48 Mean 519 Cfsm 1.07 In. 14.47

Water year 1954-55: Max 7,400 Min 48 Mean 591 Cfsm 1.21 In. 16.47

Peak discharge (base, 5,000 cfs).--Oct. 15 (11:30 p.m.) 10,300 cfs (11.80 ft); Nov. 21 (2 p.m.) 7,700 cfs (10.25 ft); Dec. 30 (2 p.m.) 7,700 cfs (10.25 ft); Feb. 7 (6 a.m.) 7,250 cfs (9.89 ft); Mar. 6 (11:30 p.m.) 10,300 cfs (11.76 ft); Mar. 22 (6 p.m.) 6,680 cfs (9.54 ft); Aug. 18 (5:30 p.m.) 8,000 cfs (10.36 ft).

* Discharge measurement made on this day.

South River near Riverside, Va.

Location.--Lat 37°47'00", long 79°21'35", on right bank 20 ft upstream from highway bridge, 1.1 miles southwest of Riverside, Rockbridge County, 1.9 miles upstream from mouth, and 4 miles east of Lexington.

Drainage area.--111 sq mi.

Records available.--October 1949 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 910 ft (from topographic map).

Average discharge.--6 years, 138 cfs.

Extremes.--Maximum discharge during year, 4,890 cfs Oct. 15 (gage height, 9.44 ft); minimum, 13 cfs Oct. 7, 8 (gage height, 2.04 ft).

1949-55: Maximum discharge, that of Oct. 15, 1954; minimum, 12 cfs Sept. 16-18, 1954 (gage height, 2.00 ft).

Flood in March 1936 reached a stage of about 13.7 ft, from information by local residents.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-15				Oct. 16 to Mar. 5				Mar. 6 to Sept. 30			
2.0	12	4.0	280	3.0	30	2.5	21	4.3	285		
2.1	15	4.5	452	3.5	87	2.7	31	5.0	550		
2.5	43	5.0	679	4.2	200	3.0	59	5.6	800		
3.0	87	6.0	1,260	4.8	400	3.7	145	7.0	2,040		
3.5	164	7.0	2,040	5.6	900						
				7.0	2,040						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	70	115	584	56	384	169	121	55	41	29	84
2	15	74	111	405	73	490	159	114	51	38	*26	76
3	16	78	104	291	83	400	150	109	48	37	26	110
4	15	73	97	243	51	384	139	104	47	35	24	109
5	15	73	94	203	55	652	132	101	45	38	24	99
6	*14	72	101	185	450	1,860	128	96	43	36	26	89
7	14	68	*82	163	640	1,560	124	92	76	34	28	82
8	14	66	80	148	400	*886	115	90	519	34	28	73
9	15	62	115	136	279	635	110	85	175	34	a28	67
10	14	60	136	126	217	484	105	82	121	34	a28	64
11	14	*57	130	124	206	424	126	89	213	36	a30	61
12	14	55	121	112	172	360	285	95	343	*35	a50	59
13	14	52	127	107	149	303	276	100	238	34	a120	54
14	14	51	167	98	146	264	830	98	167	32	a100	52
15	1,480	50	214	82	144	252	*830	91	134	31	a90	50
16	1,050	48	194	78	133	252	580	84	*114	30	a80	48
17	249	48	170	84	128	228	436	83	101	30	a300	47
18	146	57	225	80	114	267	350	79	91	30	a1,200	43
19	109	291	304	80	107	267	288	73	85	29	a700	45
20	87	1,360	258	*75	100	250	245	69	84	29	a450	*44
21	75	1,650	198	69	94	255	220	67	73	28	a300	41
22	67	825	172	74	98	502	248	85	67	28	235	41
23	61	460	163	70	177	555	212	111	62	26	196	41
24	56	307	144	67	*206	444	201	92	61	34	152	42
25	51	228	126	64	190	364	192	85	55	32	127	45
26	48	177	114	61	172	346	175	76	61	28	113	39
27	47	151	108	61	214	276	161	68	57	26	102	39
28	49	138	105	49	273	245	147	63	50	28	94	43
29	84	149	601	55	-	222	136	68	47	44	93	39
30	87	124	1,480	55	-----	198	128	73	48	30	64	37
31	80	-----	322	47	-----	183	-----	*61	-----	30	101	-----
Total	4,028	6,974	7,076	4,076	5,108	14,192	7,397	2,704	3,327	1,009	4,984	1,765
Mean	130	232	228	131	162	458	247	87.2	111	32.5	161	58.8
Cfsm	1.17	2.09	2.05	1.18	1.64	4.13	2.23	0.786	1.00	0.293	1.45	0.530
In.	1.35	2.33	2.36	1.36	1.71	4.76	2.49	0.91	1.12	0.34	1.67	0.59

Calendar year 1954: Max 2,310 Min 12 Mean 122 Cfsm 1.10 In. 14.92
 Water year 1954-55: Max 1,860 Min 14 Mean 172 Cfsm 1.55 In. 20.99

Peak discharge (base, 800 cfs).--Oct. 15 (8 p.m.) 4,890 cfs (9.44 ft); Nov. 21 (3:30 a.m.) 2,080 cfs (7.04 ft); Dec. 30 (10 a.m.) 1,650 cfs (6.57 ft); Feb. 6 (6 p.m.) 1,280 cfs (6.09 ft); Mar. 6 (4 p.m.) 3,010 cfs (8.00 ft); Apr. 14 (11:30 p.m.) 1,050 cfs (5.78 ft); June 7 (12 p.m.) 1,400 cfs (6.24 ft); Aug. 18 (time unknown) 4,590 cfs (9.20 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and records for Maury River near Lexington and near Buena Vista.

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 1955. 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.--16 years, 683 cfs.

Extremes.--Maximum discharge during year, 12,500 cfs Oct. 15 (gage height, 12.35 ft); minimum, 69 cfs Oct. 8 (gage height, 1.64 ft).

1939-55: 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 table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.6	63	4.0	1,050
1.7	78	6.0	2,800
2.1	164	8.0	5,010
2.5	289	10.0	7,950
3.0	472	11.0	9,760

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	272	665	2,500	269	2,160	840	498	224	164	133	237
2	85	266	610	1,800	309	2,300	774	472	208	154	*124	218
3	107	272	551	1,400	334	1,850	726	452	202	148	124	282
4	88	250	503	1,150	282	1,850	670	436	193	148	124	351
5	51	246	464	980	266	4,790	610	417	184	146	148	320
6	*75	240	494	875	1,520	8,840	580	394	178	143	146	289
7	74	224	*432	774	6,160	7,610	565	376	193	146	193	256
8	70	215	380	676	3,330	*3,880	525	365	868	205	269	227
9	72	208	464	610	2,080	2,700	490	351	626	237	212	208
10	72	196	834	570	1,560	2,080	468	337	464	227	170	199
11	74	*184	780	556	1,360	1,760	472	326	665	230	154	187
12	74	178	676	516	1,360	1,640	798	340	1,800	*330	164	184
13	74	176	648	490	1,020	1,400	786	344	1,360	240	679	170
14	74	170	744	456	980	1,200	2,150	394	834	193	638	161
15	3,920	167	945	432	910	1,080	*3,220	481	616	167	464	156
16	6,320	164	945	432	804	1,280	2,400	534	*490	156	362	154
17	1,520	164	834	413	732	1,280	1,850	472	409	146	750	148
18	750	181	1,120	390	648	1,440	1,720	428	354	138	6,890	146
19	516	733	1,980	360	575	1,520	1,400	383	320	131	3,770	138
20	402	4,100	1,520	*369	538	1,400	1,200	351	306	129	1,680	*133
21	337	6,470	1,120	340	503	1,400	1,050	326	279	126	980	129
22	292	3,440	875	344	498	4,650	1,020	340	256	117	692	124
23	256	1,850	792	340	1,050	4,540	889	424	234	117	575	126
24	234	1,320	720	326	*1,520	2,700	816	417	221	129	460	129
25	215	1,050	616	509	1,360	2,030	768	362	215	136	383	133
26	199	798	538	296	1,080	1,850	720	323	237	136	337	129
27	190	660	490	303	1,280	1,520	670	289	212	126	296	124
28	202	580	468	266	1,980	1,320	610	266	196	126	276	131
29	269	698	1,570	259	-	1,160	565	266	176	156	263	129
30	340	756	7,270	266	-----	1,050	551	272	167	138	243	122
31	316	4,210	234	-----	-----	910	-----	*240	-----	138	272	-----
Total	17,372	26,228	34,258	19,062	34,308	75,190	29,903	11,676	12,687	5,023	21,971	5,440
Mean	560	874	1,105	615	1,225	2,425	997	377	423	162	709	181
Cfsm	0.863	1.35	1.70	0.948	1.89	3.74	1.54	0.581	0.652	0.250	1.09	0.279
In.	0.99	1.51	1.96	1.09	1.97	4.31	1.72	0.67	0.73	0.29	1.26	0.31
Calendar year 1954: Max	10,300			Min 68		Mean 642		Cfsm 0.989		In. 13.41		
Water year 1954-55: Max	8,840			Min 70		Mean 803		Cfsm 1.24		In. 16.81		

Peak discharge (base, 6,200 cfs).--Oct. 15 (10 p.m.) 12,500 cfs (12.35 ft); Nov. 21 (3 p.m.) 8,300 cfs (10.24 ft); Dec. 30 (3 p.m.) 8,300 cfs (10.24 ft); Feb. 7 (8 a.m.) 7,440 cfs (9.72 ft); Mar. 7 (12:30 a.m.) 11,500 cfs (11.90 ft); Mar. 22 (7:30 p.m.) 6,950 cfs (9.37 ft); Aug. 18 (6 p.m.) 9,020 cfs (10.65 ft).

* Discharge measurement made on this day.

Pedlar River near Pedlar Mills, Va.

Location.--Lat 37°32'35", long 79°15'10", on right bank 6 ft downstream from highway bridge, 1.2 miles south of Pedlar Mills, Amherst County, 1.5 miles downstream from Horsley Mill Creek, and 3.7 miles upstream from mouth.

Drainage area.--91 sq mi, approximately.

Records available.--July 1942 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 656 ft (by barometer).

Average discharge.--13 years, 181 cfs (adjusted).

Extremes.--Maximum discharge during year, 6,890 cfs Aug. 18 (gage height, 11.28 ft); minimum, 3.0 cfs Oct. 7, 8 (gage height, 1.65 ft).

1942-55: Maximum discharge, 11,200 cfs Aug. 8, 1942 (gage height, 14.1 ft, from floodmark in gage well), from rating curve extended above 2,200 cfs by logarithmic plotting; minimum, 2.3 cfs Sept. 8, 1944 (gage height, 1.83 ft).

Remarks.--Records good except those for period of no gage-height record, which are fair. Diversion above station for municipal supply of Lynchburg.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 27; shifting-control method used July 12, 13)

Oct. 1-14, Aug. 18 to Sept. 30

Oct. 15 to Aug. 17

1.8	2.0	3.5	290	2.0	9.0
1.9	4.0	5.0	973	2.1	15
2.0	8.0	6.0	1,480	2.3	35
2.2	19	8.0	2,900	2.6	79
2.4	38	9.0	3,900	3.0	167
2.8	108				

Note.--Same as preceding table above 3.7 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	27	79	a250	38	352	121	104	43	32	19	57
2	4.4	33	74	a200	56	330	117	98	42	30	*15	54
3	4.8	47	65	a170	54	245	106	94	39	26	15	287
4	4.4	38	59	a140	35	252	98	92	38	24	12	224
5	4.0	36	61	a120	33	429	94	88	38	28	12	134
6	*3.6	35	113	a110	837	996	92	83	34	27	13	98
7	3.2	33	*76	a100	785	785	90	77	38	27	21	76
8	3.0	27	64	a90	316	429	83	74	331	27	23	60
9	3.4	24	a70	a80	221	299	79	69	177	26	348	52
10	3.8	21	a130	a75	177	245	78	69	94	44	98	49
11	3.8	*22	a90	a75	177	224	92	67	686	86	51	46
12	4.0	20	a70	a70	143	201	462	67	448	*49	52	46
13	4.0	20	a100	a65	117	172	237	81	224	38	165	39
14	4.0	19	a150	a65	115	160	950	85	162	30	128	36
15	1,200	20	a230	a60	117	155	*808	70	131	22	153	34
16	183	19	a160	a60	104	184	448	62	*104	20	119	32
17	59	20	a130	a60	98	177	316	61	88	17	1,050	30
18	34	33	a160	a55	87	216	298	58	79	16	3,100	29
19	24	418	a190	a55	79	214	247	54	76	16	597	28
20	19	832	a160	*a50	76	189	216	49	79	16	283	*26
21	15	1,520	a140	44	72	181	198	48	64	14	189	25
22	14	377	a120	52	77	493	214	76	58	13	152	23
23	13	221	a110	51	206	349	181	115	55	16	134	24
24	13	165	a100	47	*186	260	181	74	58	18	102	28
25	12	133	a80	43	153	*216	172	62	58	17	81	34
26	12	106	a70	40	131	211	155	54	81	18	68	29
27	12	88	a70	37	167	174	141	*49	51	14	60	25
28	14	83	a70	33	194	157	133	47	43	13	52	25
29	49	119	a200	35	-	145	124	47	39	13	52	28
30	27	92	a400	34	-----	136	113	61	34	14	48	24
31	24	-----	a300	33	-----	129	-----	51	-----	19	89	-----
Total	1,778.2	4,648	3,951	2,399	4,851	8,705	6,634	2,186	3,492	770	7,299	1,702
Mean	57.4	155	127	77.4	173	281	221	70.6	116	24.8	235	56.7
(\bar{x})	+26.5	+12.9	+14.4	+14.6	+14.5	+15.5	+15.4	+15.5	+15.9	+16.2	+14.9	+15.0

Adjusted for diversion and change in contents in Lynchburg Reservoir

Mean	83.9	168	141	92.0	188	296	236	86.1	132	41.0	250	71.7
Cfsm	0.922	1.85	1.55	1.01	2.07	3.25	2.59	0.946	1.45	0.451	2.75	0.788
In.	1.06	2.06	1.79	1.16	2.16	3.75	2.89	1.09	1.62	0.52	3.17	0.88

Observed

Adjusted

Calendar year 1954:	Max	1,520	Min	2.8	Mean	75.5	Mean	88.6	Cfsm	0.974	In.	13.22
Water year 1954-55:	Max	3,100	Min	3.0	Mean	133	Mean	149	Cfsm	1.64	In.	22.15

Peak discharge (base, 1,300 cfs).--Oct. 15 (6 p.m.) 5,100 cfs (10.00 ft); Nov. 21 (2 a.m.) 3,580 cfs (8.68 ft); Feb. 6 (6 p.m.) 2,570 cfs (7.59 ft); Mar. 6 (3:30 p.m.) 1,790 cfs (6.52 ft); Apr. 14 (8 a.m.) 1,590 cfs (5.84 ft); Aug. 9 (10 a.m.) 1,360 cfs (5.77 ft); Aug. 18 (4 a.m.) 6,890 cfs (11.28 ft).

* Discharge measurement made on this day.

+ Diversion from and change in contents in Lynchburg Reservoir, equivalent in cubic feet per second; furnished by city of Lynchburg.

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

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 1955. 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.--27 years (1927-30, 1931-55), 3,730 cfs.

Extremes.--Maximum discharge during year, 65,900 cfs Mar. 6 (gage height, 23.33 ft); minimum, 334 cfs Sept. 23 (gage height, 3.68 ft); minimum daily, 390 cfs Oct. 9.

1926-55: 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.

Revisions (water years).--WSF 972: 1913(M), 1932-33, 1935(M), 1936. WSR 1203: 1928(M).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

3.7	345	15.0	27,100
4.4	933	21.0	55,000
6.0	3,370	24.0	69,900
10.0	11,800		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	431	1,730	3,720	14,800	1,460	17,400	4,720	2,540	1,360	871	a740	1,250
2	488	1,740	3,370	10,100	1,720	23,900	4,350	2,620	1,290	820	a700	992
3	536	1,660	a3,000	7,690	1,860	15,900	4,080	2,540	1,120	802	*a660	1,760
4	792	1,480	a2,700	6,200	2,380	12,200	3,810	2,460	1,140	744	b72	2,220
5	620	1,490	a2,500	5,200	2,460	15,600	3,370	2,300	1,060	773	663	1,910
6	417	1,400	a3,000	4,820	5,020	50,200	3,370	2,220	1,090	754	663	1,760
7	*528	1,360	a3,100	4,260	26,300	55,800	3,200	2,140	1,090	754	672	1,550
8	459	1,360	a3,000	3,720	a3,500	30,000	2,940	1,980	2,300	754	690	1,330
9	390	1,320	2,620	3,540	15,000	16,100	2,780	1,980	2,220	861	1,640	1,120
10	410	1,240	3,990	3,370	10,100	12,000	2,460	1,900	1,820	1,010	1,150	1,010
11	528	1,210	5,600	3,280	8,130	9,670	2,740	1,800	3,530	1,540	933	992
12	410	*1,130	4,440	3,120	7,470	8,790	4,540	1,860	4,820	1,670	892	955
13	438	1,100	3,900	2,940	6,620	8,350	3,900	1,860	4,820	*1,520	1,740	902
14	459	1,050	4,540	2,540	5,600	7,250	9,010	2,060	3,370	a1,200	2,140	830
15	15,200	1,100	7,040	2,300	5,010	6,410	14,800	2,220	2,540	a1,000	1,780	840
16	41,700	1,080	7,690	2,460	4,720	7,690	12,200	3,120	2,140	a820	1,460	782
17	20,100	1,090	5,800	2,380	4,260	12,200	9,450	3,120	1,850	a790	2,900	764
18	6,830	1,130	5,200	2,380	3,810	11,800	7,910	2,540	1,550	a740	17,000	744
19	4,260	3,620	6,830	2,220	3,720	13,500	6,830	2,300	1,420	a710	13,200	717
20	3,120	10,600	7,910	2,140	3,460	11,800	5,800	2,140	1,580	a690	7,470	*717
21	2,460	22,600	6,000	2,140	3,200	9,670	5,200	1,980	1,290	a690	4,260	699
22	2,060	16,100	4,720	*1,980	3,120	12,700	4,820	1,980	1,180	a670	3,460	699
23	1,790	9,450	3,990	1,910	3,810	25,300	4,440	2,220	1,150	a630	2,620	577
24	1,600	6,410	3,720	1,980	7,040	*17,600	4,080	2,300	1,100	a640	2,140	708
25	1,400	5,200	3,540	1,910	8,570	12,000	3,810	2,140	1,000	a720	1,820	754
26	1,260	3,990	3,120	1,980	6,620	9,900	3,540	1,980	1,220	a660	1,520	754
27	1,210	3,540	2,780	1,750	6,200	8,350	3,450	*1,860	1,180	a660	1,290	708
28	1,090	3,030	2,540	1,740	13,500	7,470	3,280	1,540	1,150	a660	1,290	690
29	1,400	3,120	4,770	1,640	---	6,620	3,120	1,580	933	a680	1,150	681
30	1,610	3,460	25,100	1,540	---	5,800	2,940	1,780	912	a680	1,050	681
31	1,680	---	30,200	1,540	---	5,200	---	1,540	---	a720	1,250	---
Total	115,676	114,990	180,430	109,450	199,760	470,610	150,990	66,570	55,015	26,953	79,615	30,088
Mean	3,731	3,633	5,820	3,531	7,134	15,180	5,033	2,147	1,767	889	2,568	1,003
Cfsm	1.19	1.14	1.79	1.09	2.20	4.67	1.55	0.661	0.544	0.267	0.790	0.309
In.	1.33	1.32	2.06	1.28	2.29	5.38	1.73	0.76	0.61	0.31	0.91	0.34

Calendar year 1954: Max 51,500 Min 390 Mean 3,277 Cfsm 1.01 In. 13.69

Water year 1954-55: Max 58,800 Min 390 Mean 4,378 Cfsm 1.35 In. 18.30

Peak discharge (base, 25,500 cfs).--Oct. 15 (8:30 p.m.) 54,900 cfs (21.38 ft); Nov. 21 (5 a.m.) 26,400 cfs (14.80 ft); Dec. 31 (12:30 a.m.) 36,500 cfs (17.38 ft); Feb. 8 (2:30 a.m.) 36,800 cfs (17.45 ft); Mar. 2 (3 p.m.) 25,800 cfs (14.58 ft); Mar. 6 (6 p.m.) 65,900 cfs (23.33 ft); Mar. 23 (6:30 p.m.) 29,700 cfs (15.68 ft).

* Discharge measurement made on this day.

No gage-height record; discharge estimated on basis of records for stations at Buchanan and Bent Creek.

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 1955.

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.--30 years, 4,176 cfs.

Extremes.--Maximum discharge during year, 65,100 cfs Mar. 7 (gage height, 17.28 ft); minimum, 478 cfs Oct. 10, 11, 12 (gage height, 2.53 ft); minimum daily, 478 cfs Oct. 11.

1925-55: 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 table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.5	445	8.0	14,900
3.0	1,080	11.0	27,600
3.5	1,960	15.0	49,500
4.0	3,020	17.0	65,000
5.0	5,420		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	579	1,870	4,160	18,800	1,810	17,200	5,920	3,440	1,700	1,100	1,140	1,670
2	567	2,240	4,280	12,100	1,780	23,900	5,280	2,860	1,620	1,170	1,250	1,760
3	555	2,180	3,800	9,260	2,420	19,600	4,940	*3,140	1,230	1,020	1,060	3,110
4	567	1,900	2,980	7,680	2,250	13,800	4,690	2,580	1,420	1,030	*865	2,430
5	675	1,440	2,660	6,630	2,880	14,200	4,360	2,680	1,360	1,030	850	2,520
6	675	1,600	3,550	5,880	4,060	39,100	3,940	2,670	1,320	1,180	805	2,240
7	*663	1,720	3,560	5,140	20,100	62,300	4,100	2,700	1,360	1,240	980	2,410
8	544	1,670	3,400	4,590	32,600	39,800	3,710	2,260	2,320	1,210	840	1,950
9	522	1,430	3,000	3,800	19,200	20,000	3,360	2,450	2,280	1,280	1,710	1,740
10	489	1,470	4,150	4,090	12,500	14,200	3,340	2,180	2,200	1,270	2,160	1,500
11	478	1,500	5,780	3,760	9,880	11,500	2,880	2,260	4,910	1,310	1,290	1,450
12	489	1,400	5,860	3,620	8,640	10,200	5,800	2,170	5,970	2,460	1,240	1,020
13	500	1,480	4,780	3,600	8,030	9,570	4,580	2,300	5,880	2,330	1,980	1,280
14	500	1,300	5,660	3,220	6,980	8,950	7,460	2,440	4,640	1,800	1,960	1,270
15	3,080	1,340	6,640	3,120	6,150	8,030	15,600	2,660	3,560	1,570	3,300	1,390
16	42,400	1,310	8,950	a3,100	5,770	8,030	14,200	2,710	2,760	1,260	2,000	1,220
17	28,300	1,260	7,640	a2,900	5,620	11,500	11,200	3,540	2,100	1,130	4,160	1,320
18	9,570	1,340	6,480	a2,800	4,900	12,800	9,260	3,080	2,190	1,240	22,100	1,290
19	5,920	1,820	7,220	a2,700	4,070	13,500	8,030	2,700	1,720	1,140	15,600	840
20	3,730	6,980	8,330	a2,600	4,300	13,100	7,430	2,630	1,860	700	9,880	1,180
21	3,090	20,200	7,650	a2,500	4,120	10,800	6,460	2,240	1,660	700	6,560	1,130
22	2,620	19,600	6,190	2,510	3,880	11,500	5,860	2,130	1,640	a780	4,310	880
23	2,080	12,100	5,310	2,440	4,970	22,500	5,440	2,440	1,530	a800	3,550	900
24	2,000	8,330	4,420	2,360	4,580	22,100	5,000	2,760	1,570	a900	2,890	940
25	1,890	6,930	4,060	2,470	9,570	13,800	5,020	2,490	1,580	a930	2,620	748
26	1,560	4,980	3,780	2,230	8,330	11,500	4,540	2,340	1,660	a1,000	2,210	895
27	1,520	4,210	3,410	2,280	7,730	9,880	4,000	2,180	1,470	a940	1,900	1,060
28	1,460	3,740	2,900	1,980	11,100	8,640	4,120	1,800	1,360	a920	1,820	958
29	1,500	3,720	3,770	1,980	-	7,730	3,900	1,920	1,360	a1,000	1,980	895
30	1,760	3,670	16,300	1,860	----	7,430	3,780	1,720	1,300	1,060	1,510	942
31	1,940	----	33,100	1,800	----	6,360	----	2,480	----	1,090	1,720	----
Total	122,223	124,930	194,170	153,800	219,220	503,320	178,200	79,950	68,070	36,490	108,220	42,938
Mean	3,943	4,164	6,264	4,316	7,829	16,240	5,940	2,579	2,269	1,177	3,426	1,431
Cfs/m	1.07	1.13	1.71	1.18	2.13	4.42	1.62	0.703	0.618	0.321	0.933	0.390
In.	1.23	1.26	1.97	1.36	2.22	5.10	1.81	0.81	0.69	0.37	1.08	0.44

Calendar year 1954: Max 52,100 Min 467 Mean 3,689 Cfs/m 1.00 In. 13.62
 Water year 1954-55: Max 62,300 Min 478 Mean 4,958 Cfs/m 1.33 In. 18.34

Peak discharge (base, 26,500 cfs).--Oct. 16 (4 a.m.) 50,200 cfs (15.10 ft); Nov. 21 (1 p.m.) 28,400 cfs (11.15 ft); Dec. 31 (9:30 a.m.) 35,500 cfs (12.55 ft); Feb. 8 (11 a.m.) 35,700 cfs (12.58 ft); Mar. 7 (4 a.m.) 65,100 cfs (17.28 ft); Mar. 24 (1 a.m.) 28,900 cfs (11.26 ft); Aug. 18 (10 a.m.) 30,700 cfs (11.62 ft).

* Discharge measurement made on this day.

No gage-height record; discharge estimated on basis of records for stations at Holcombs Rock and at Scottsville.

JAMES RIVER BASIN

Tye River near Lovingsston, 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 Lovingsston, Nelson County.

Drainage area.--92 sq mi, approximately.

Records available.--August 1938 to September 1955.

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.--17 years, 153 cfs.

Extremes.--Maximum discharge during year, 7,300 cfs Aug. 18 (gage height, 11.50 ft); minimum, 4.8 cfs Oct. 1 (gage height, 0.62 ft).
1938-55: 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.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 29-31; shifting-control method used July 8-23)

Oct. 1 to Nov. 20				Nov. 21 to Aug. 17				Aug. 18 to Sept. 30			
0.6	4.0	1.6	129	0.8	16	2.4	364	0.8	42	5.0	1,540
7	8.0	2.0	235	1.0	36	3.0	576	1.2	97	7.0	2,970
9	23	3.0	555	1.4	99	5.0	1,540	2.0	269	9.0	4,900
1.2	58	4.0	940	1.9	216			3.0	576		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	39	115	468	73	258	186	145	92	65	59	108
2	8.0	48	109	364	99	269	173	138	86	58	41	97
3	10	53	101	299	79	269	161	132	81	52	*33	196
4	7.2	45	89	258	58	287	149	127	78	50	38	176
5	*6.4	45	97	222	68	345	142	121	73	47	50	142
6	6.4	45	111	199	598	736	140	113	70	58	38	123
7	5.6	44	*85	176	825	758	132	109	73	65	48	110
8	6.0	41	83	156	486	522	121	107	415	73	44	101
9	6.8	39	150	145	364	432	117	101	222	58	59	95
10	7.2	38	154	136	299	354	113	97	173	68	58	89
11	7.2	*35	132	136	293	323	136	97	680	61	44	86
12	7.2	35	121	121	236	284	351	145	614	*58	67	81
13	7.2	34	140	117	205	247	247	121	398	46	646	73
14	7.2	33	293	107	191	222	*910	132	305	41	278	70
15	487	33	258	105	183	219	915	113	252	37	317	64
16	250	32	210	101	168	224	595	107	*210	37	238	80
17	83	38	183	95	161	191	488	103	180	33	1,020	58
18	85	78	309	90	145	227	398	101	158	33	4,130	59
19	41	366	323	90	136	205	338	97	152	30	1,010	*57
20	33	895	272	*86	127	194	295	92	142	31	540	57
21	29	1,210	222	79	121	219	272	90	127	27	372	50
22	26	522	194	88	125	773	290	115	117	23	294	52
23	23	345	175	81	124	576	244	205	113	25	255	54
24	22	284	158	76	*173	450	258	165	107	31	207	58
25	21	205	138	73	168	*378	227	145	99	33	176	59
26	20	168	125	71	158	351	210	125	103	26	154	53
27	20	142	117	71	191	293	194	*113	88	21	138	49
28	26	134	119	55	202	281	178	107	83	20	124	52
29	72	163	637	60	-	236	166	113	65	57	121	50
30	54	125	1,160	60	-----	216	154	125	58	37	111	46
31	46		554	65	-----	202	-----	101	-----	72	138	
Total	1,406.8	5,290	7,040	4,252	6,156	10,521	8,261	3,703	5,424	1,378	10,648	2,427
Mean	45.4	176	227	137	220	339	275	119	181	44.5	350	80.9
Cfsm	0.493	1.91	2.47	1.49	2.39	3.68	2.99	1.29	1.97	0.484	3.80	0.879
In.	0.57	2.13	2.85	1.72	2.49	4.24	3.34	1.49	2.20	0.56	4.38	0.98

Calendar year 1954: Max 1,210 Min 3.2 Mean 108 Cfsm 1.17 In. 15.94
Water year 1954-55: Max 4,130 Min 5.6 Mean 183 Cfsm 1.99 In. 26.95

Peak discharge (base, 1,200 cfs).--Oct. 15 (7 p.m.) 2,320 cfs (6.20 ft); Nov. 21 (2 a.m.) 1,950 cfs (5.75 ft); Dec. 30 (7 a.m.) 1,470 cfs (4.89 ft); Feb. 6 (9 p.m.) 1,640 cfs (5.19 ft); Mar. 6 (5 p.m.) 1,260 cfs (4.49 ft); Apr. 14 (12 p.m.) 1,440 cfs (4.83 ft); Aug. 18 (5:30 a.m.) 7,300 cfs (11.50 ft).
* Discharge measurement made on this day.

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 1955.

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.--6 years, 91.2 cfs.

Extremes.--Maximum discharge during year, 4,930 cfs Aug. 18 (gage height, 7.90 ft); minimum, 2.2 cfs Oct. 13, 14 (gage height, 0.71 ft).
1949-55: Maximum discharge, that of Aug. 18, 1955; 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 period of no gage-height record or periods of backwater from temporary dam, which are fair.

Rating table, water year 1954-55, except periods of backwater from temporary dam (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 29, 30; shifting-control method used Apr. 14-18)

0.7	2.0	2.0	145
.8	4.0	2.5	281
.9	6.8	3.0	460
1.0	10	4.0	925
1.1	16	5.0	1,660
1.3	33	6.0	2,630
1.5	58		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	c3	26	103	357	37	176	113	96	44	34	26	69
2	c4	33	96	281	45	202	102	50	43	30	20	65
3	a3.5	32	85	228	37	219	98	85	38	29	*18	125
4	a3	29	80	188	48	219	91	80	32	29	17	131
5	*a3	30	82	162	34	265	85	77	31	29	23	121
6	c3	27	80	143	270	476	83	71	29	27	34	111
7	3.0	26	*69	125	424	540	78	65	52	39	32	98
8	3.2	25	64	111	307	428	74	64	131	43	28	86
9	2.8	24	86	102	237	333	68	59	69	35	45	82
10	3.0	23	90	93	194	271	66	58	62	62	41	74
11	3.4	*22	85	91	178	234	88	59	358	53	35	68
12	3.0	24	83	82	141	191	208	80	397	*46	48	62
13	3.0	22	109	75	131	164	166	a76	265	40	95	58
14	2.8	22	194	a70	a120	151	*682	a80	197	37	95	55
15	149	21	188	a68	a110	145	720	a70	160	32	127	53
16	85	19	174	a68	a100	143	520	a60	*137	29	119	49
17	44	24	156	a64	a96	129	400	a58	117	28	612	44
18	25	45	205	a60	a90	147	330	a56	102	26	2,600	39
19	23	320	191	a55	84	131	278	a52	95	24	795	38
20	19	757	178	*a52	a80	129	236	a50	85	24	480	37
21	17	898	160	a52	a74	137	208	49	77	22	330	33
22	17	476	143	a54	a76	354	199	62	69	19	249	32
23	16	516	129	a54	a150	367	166	77	65	18	199	34
24	16	243	115	a52	*a130	307	160	69	58	19	162	38
25	14	184	105	a50	113	*259	149	66	52	19	141	39
26	13	149	93	a46	113	225	139	61	54	17	115	33
27	13	129	86	a45	137	186	131	*55	46	16	93	32
28	15	117	82	33	137	168	125	52	44	17	86	35
29	35	119	243	32	-	151	111	54	41	25	80	32
30	28	105	652	30	-	137	102	55	59	18	74	30
31	27	432	29	-	-	127	-	49	-	31	86	-
Total	599.7	4,287	4,698	2,952	3,693	7,111	5,976	2,035	2,989	917	6,905	1,803
Mean	19.3	143	152	95.2	132	229	199	65.6	99.6	29.6	223	60.1
Cfsm	0.402	2.98	3.17	1.98	2.75	4.77	4.15	1.37	2.08	0.617	4.65	1.25
In.	0.46	3.32	3.66	2.28	2.86	5.50	4.63	1.58	2.32	0.71	5.36	1.40

Calendar year 1954: Max 898 Min 1.9 Mean 65.4 Cfsm 1.36 In. 18.52
Water year 1954-55: Max 2,600 Min 2.8 Mean 120 Cfsm 2.50 In. 34.08

Peak discharge (base, 500 cfs).--Oct. 15 (6 p.m.) 693 cfs (3.54 ft); Nov. 20 (12 p.m.) 1,520 cfs (4.84 ft); Dec. 30 (11 a.m.) 711 cfs (3.58 ft); Feb. 6 (8 p.m.) 549 cfs (3.22 ft); Mar. 6 (1 p.m.) 666 cfs (3.48 ft); Apr. 14 (10 p.m.) 1,120 cfs (4.21 ft); June 11 (7 a.m.) 652 cfs (3.45 ft); Aug. 18 (3 a.m.) 4,930 cfs (7.90 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement and records for Tyne River near Lovington.
c Backwater from temporary dam.

JAMES RIVER BASIN

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 1955.

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

Average discharge.--15 years, 497 cfs.

Extremes.--Maximum discharge during year, 17,600 cfs Aug. 18 (gage height, 12.06 ft); minimum, 23 cfs Oct. 8, 9 (gage height, 1.77 ft).
1940-55: 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, that of Oct. 8, 9, 1954.

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

Rating table, water year 1954-55 (gage height, in feet, and
discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 29, 30)

1.7	15	2.7	390
1.8	27	3.4	1,020
2.0	60	4.5	2,480
2.2	113	6.0	4,880
2.6	320	9.0	10,600

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a50	163	489	1,330	283	1,160	a600	465	247	192	241	355
2	a55	178	465	1,090	298	1,100	a550	442	230	178	145	320
3	a45	258	435	890	277	954	a520	428	208	168	125	613
4	a35	208	398	783	208	1,050	a480	*412	197	158	*113	657
5	a30	192	376	693	224	1,300	a460	362	187	158	153	513
6	a28	168	537	630	1,020	2,480	a450	341	182	158	129	442
7	*27	163	428	562	2,400	2,480	a420	320	178	247	192	390
8	26	158	*334	554	1,530	1,760	a400	308	781	258	158	355
9	26	153	489	513	1,110	1,370	a380	295	497	202	314	327
10	27	149	622	442	910	1,140	a360	283	385	341	308	313
11	33	141	473	442	850	1,020	a450	277	1,760	376	202	295
12	39	*125	428	420	747	921	a1,100	341	1,700	313	313	285
13	34	121	458	390	604	810	a800	334	1,090	*247	857	258
14	34	117	1,540	362	613	747	2,080	376	830	219	596	247
15	679	117	1,130	355	604	711	2,640	320	702	192	693	236
16	1,310	113	830	362	545	756	1,760	289	613	178	554	230
17	390	121	693	334	521	693	1,330	277	*513	163	1,480	213
18	247	163	943	320	473	810	1,130	264	435	149	10,600	208
19	192	716	976	320	442	765	965	258	405	141	3,010	197
20	158	2,260	820	308	420	720	840	247	390	141	1,700	187
21	137	3,330	702	*277	398	738	774	236	334	133	1,210	178
22	125	1,850	622	289	398	1,880	900	270	313	141	921	*168
23	113	1,150	596	289	830	1,700	738	420	295	129	801	168
24	104	890	537	277	702	*1,310	711	334	295	121	666	187
25	95	756	489	264	*630	1,090	747	327	270	141	562	230
26	92	622	435	252	579	1,030	657	277	308	125	505	182
27	89	545	405	252	675	860	596	252	252	117	442	168
28	89	505	398	202	729	792	554	241	241	104	390	173
29	208	866	1,590	200	-	729	521	375	213	141	369	173
30	256	537	2,480	190	-----	a700	497	684	202	145	341	163
31	182	-	1,830	182	-----	a650	-----	289	-----	187	405	-
Total	4,895	16,615	22,948	13,774	19,011	34,226	24,410	10,344	14,240	5,663	28,395	8,429
Mean	158	554	740	444	679	1,104	814	334	475	183	916	281
Cfsm	0.439	1.54	2.06	1.23	1.89	3.07	2.26	0.928	1.32	0.508	2.54	0.781
In.	0.51	1.72	2.38	1.42	1.97	3.54	2.52	1.07	1.47	0.59	2.93	0.87

Calendar year 1954: Max 3,330 Min 26 Mean 351 Cfsm 0.975 In. 13.25
Water year 1954-55: Max 10,600 Min 26 Mean 556 Cfsm 1.54 In. 20.99

Peak discharge (base, 3,000 cfs).--Nov. 21 (9 a.m.) 4,080 cfs (5.52 ft); Mar. 6 (10 p.m.) 3,790 cfs (5.34 ft); Apr. 15 (1 a.m.) 3,350 cfs (5.06 ft); June 11 (2 p.m.) 3,550 cfs (5.19 ft); Aug. 18 (7:30 a.m.) 17,600 cfs (12.06 ft).

* 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.

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 1955.

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.--12 years, 141 cfs.

Extremes.--Maximum discharge during year, 12,200 cfs Aug. 18 (gage height, 16.45 ft); minimum, 1.6 cfs Oct. 1, 2; minimum gage height, 1.26 ft Oct. 1, 2.

1943-55: 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, that of 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.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 29-31)

Oct. 1 to Feb. 6

Feb. 7 to Aug. 17

Aug. 18 to Sept. 30

1.2	1.0	2.0	78	1.6	19	3.0	226	1.9	39	5.0	750
1.3	3.0	2.5	156	1.8	37	4.0	432	2.1	61	8.0	2,100
1.4	7.0	3.0	235	2.0	66	6.0	1,100	2.7	150	11.0	4,060
1.5	13	4.0	455	2.5	148	7.0	1,600	3.5	297	13.0	6,420
1.6	21	5.0	750								
1.8	44	6.0	1,150								

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	30	88	a550	52	144	154	119	49	35	47	100
2	1.8	41	84	a400	74	140	144	113	47	35	33	94
3	2.4	48	76	a300	63	135	137	107	45	31	*28	237
4	2.6	40	70	a250	52	150	132	100	44	29	24	207
5	*2.4	37	68	a200	52	163	118	93	41	27	38	169
6	2.2	34	78	a180	474	552	114	88	38	33	27	142
7	2.0	*1	*63	a160	795	530	112	82	41	37	26	125
8	2.2	30	58	a140	396	373	102	78	116	34	34	108
9	2.6	28	124	a120	298	308	97	74	84	38	107	98
10	3.8	27	124	a110	244	262	93	70	74	53	74	94
11	3.8	*25	103	a110	253	235	106	68	348	45	55	90
12	3.8	28	91	a100	218	212	298	72	238	*42	158	100
13	3.8	25	99	a100	190	186	206	84	193	37	710	78
14	3.8	24	366	a90	169	168	*715	99	148	34	351	72
15	370	23	322	a85	162	160	842	82	122	30	710	67
16	187	22	225	a80	148	156	545	70	*104	28	408	63
17	52	24	182	a80	140	138	396	64	86	26	1,460	60
18	51	161	306	a75	124	150	329	63	76	25	6,160	60
19	26	592	282	74	114	138	280	58	78	60	1,280	*56
20	27	190	230	*68	107	130	253	56	72	29	662	54
21	25	585	a200	67	100	148	223	53	61	25	460	48
22	18	311	a170	68	100	1,120	262	70	56	24	345	47
23	17	220	a150	67	144	650	209	104	55	22	308	51
24	16	176	a130	65	*125	444	198	82	52	26	229	57
25	15	141	a120	61	119	*351	192	80	47	31	193	60
26	15	116	a110	58	113	318	176	64	74	23	164	53
27	15	100	a100	58	130	262	163	*60	49	21	142	51
28	15	93	a90	50	128	225	150	58	44	19	125	47
29	63	134	1500	50	-	203	138	60	40	63	113	44
30	41	97	a1,000	50	-----	184	130	68	37	34	102	44
31	34	---	1,000	50	-----	169	-----	56	---	68	125	---
Total	999.8	3,830	6,209	3,914	5,084	8,505	7,014	2,395	2,619	1,062	14,698	2,576
Mean	32.3	128	200	126	182	274	234	77.3	87.3	34.3	474	85.9
Cfsm	0.356	1.33	2.08	1.31	1.90	2.85	2.44	0.805	0.909	0.357	4.94	0.895
In.	0.39	1.48	2.40	1.51	1.98	3.29	2.72	0.93	1.01	0.41	5.70	1.00

Calendar year 1954: Max 1,000 Min 1.6 Mean 87.7 Cfsm 0.914 In. 12.39
Water year 1954-55: Max 6,160 Min 1.6 Mean 161 Cfsm 1.68 In. 22.82

Peak discharge (base, 1,200 cfs).--Oct. 15 (9 p.m.) 1,350 cfs (6.39 ft); Dec. 30 (time unknown) 1,360 cfs (6.47 ft); Feb. 6 (9 p.m.) 1,760 cfs (7.31 ft); Mar. 22 (12:30 p.m.) 2,080 cfs (7.96 ft); Apr. 15 (1 a.m.) 1,450 cfs (6.70 ft); Aug. 18 (5 a.m.) 12,200 cfs (16.45 ft).

* Discharge measurement made on this day.

No gage-height record; discharge estimated on basis of recorded range in stage and records for River near Lovington.

JAMES RIVER BASIN

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 1955.

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.--30 years, 5,189 cfs.

Extremes.--Maximum discharge during year, 70,100 cfs Mar. 7 (gage height, 19.94 ft); minimum, 498 cfs Oct. 12, 13 (gage height, 2.08 ft); minimum daily, 504 cfs Oct. 12.
1925-55: 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.....	About 160,000	27.9	Do.
March 1913.....	121,000	25.16	From floodmarks.

Remarks.--Records good. Flow regulated by powerplants above station. Records of water temperatures and sediment loads for the water year 1955 are given in WSP 1400.

Revisions (water years).--WSP 727: 1931(M). WSP 757: Drainage area. WSP 972: 1913(M), 1936(M), 1940(M).

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	582	2,210	4,260	27,600	2,060	17,800	6,640	4,260	2,700	1,440	1,400	2,400
2	575	2,290	4,630	15,300	2,450	23,900	6,640	3,990	2,100	1,360	1,400	1,950
3	575	2,860	4,440	11,200	2,530	25,500	5,810	3,630	1,670	1,370	*1,270	2,550
4	562	2,780	3,900	9,110	2,610	17,400	5,610	3,720	1,660	1,180	1,110	4,350
5	562	2,370	3,540	7,940	2,690	15,700	5,210	3,460	1,810	1,230	992	3,200
6	759	1,760	3,280	7,500	3,900	31,400	4,540	3,460	1,490	1,250	1,090	3,030
7	*642	2,140	3,810	7,060	19,300	65,600	4,540	3,370	1,640	1,440	1,030	2,620
8	605	1,910	4,080	6,640	36,400	57,000	4,440	3,030	1,950	1,620	1,180	2,780
9	542	2,140	3,900	5,010	26,400	27,600	4,080	2,860	3,370	1,650	1,100	2,400
10	542	*1,690	4,540	4,630	15,700	18,500	3,810	2,780	3,030	1,810	2,610	1,880
11	516	1,760	5,810	4,630	11,200	14,000	3,540	2,780	4,090	2,480	2,180	2,100
12	504	1,840	6,640	4,440	9,600	12,100	5,810	2,620	11,200	2,480	1,950	*1,670
13	510	1,760	5,610	4,080	8,630	10,900	7,280	2,780	6,850	2,700	3,810	1,450
14	516	1,760	8,890	3,990	7,940	10,100	7,760	3,200	6,640	2,620	4,170	1,600
15	920	1,400	9,350	3,540	7,200	9,110	17,800	3,200	4,820	1,740	6,010	1,670
16	31,600	1,780	9,110	3,460	6,800	8,630	20,000	3,200	3,780	1,750	4,170	1,550
17	*39,600	1,490	9,110	3,370	6,220	9,600	15,300	3,370	3,120	1,350	6,080	1,490
18	13,400	1,840	8,400	3,030	5,610	14,300	12,100	3,810	2,550	1,300	51,900	1,580
19	7,280	2,860	7,940	*3,370	4,720	14,000	10,400	3,370	2,620	1,310	28,800	1,400
20	5,010	8,690	8,400	3,280	5,010	15,700	8,670	3,030	2,320	1,160	16,400	1,180
21	3,720	24,300	9,110	2,940	4,440	13,300	8,170	2,480	2,320	840	9,850	1,340
22	2,860	27,200	7,720	2,860	4,350	13,600	7,400	2,780	2,020	830	7,060	1,280
23	2,530	16,700	6,220	2,860	5,210	*21,900	6,900	3,030	2,020	1,000	5,210	1,190
24	2,290	10,400	5,410	2,780	6,640	29,300	6,430	3,120	1,950	1,020	4,350	1,270
25	2,140	8,170	5,010	2,780	6,630	18,100	6,220	3,200	1,950	1,180	3,540	1,330
26	1,840	6,430	4,540	2,690	9,350	14,000	6,220	3,120	2,020	1,230	3,200	1,130
27	1,760	5,210	4,170	2,780	8,400	11,800	5,010	2,700	2,100	1,180	2,780	1,230
28	1,690	4,720	3,900	2,450	8,870	10,400	5,210	2,550	1,710	1,150	2,320	1,440
29	1,760	4,440	4,820	2,210	-	8,870	4,820	2,250	1,710	1,180	2,320	1,510
30	2,060	4,630	12,800	2,610	-----	8,400	4,540	4,540	*1,670	1,180	2,250	1,240
31	2,290	-	35,500	1,980	-----	7,940	-----	*3,200	-----	1,280	1,740	-
Total	130,742	158,500	218,840	168,120	242,860	576,450	221,100	98,890	88,820	45,290	183,172	55,610
Mean	4,217	5,317	7,059	5,423	8,674	18,600	7,370	3,190	2,961	1,461	5,909	1,854
Cfsm	0.923	1.16	1.54	1.19	1.90	4.07	1.61	0.698	0.648	0.320	1.29	0.406
In.	1.06	1.29	1.78	1.37	1.98	4.69	1.80	0.80	0.72	0.37	1.49	0.45

Calendar year 1954: Max 44,800 Min 474 Mean 4,234 Cfsm 0.926 In. 12.56
Water year 1954-55: Max 65,600 Min 504 Mean 5,998 Cfsm 1.31 In. 17.80

Peak discharge (base, 27,000 cfs).--Oct. 16 (2 p.m.) 47,900 cfs (16.48 ft); Nov. 21 (9:30 p.m.) 34,000 cfs (13.89 ft); Dec. 31 (5 p.m.) 39,400 cfs (14.96 ft); Feb. 8 (5 p.m.) 40,000 cfs (15.08 ft); Mar. 7 (4 p.m.) 70,100 cfs (19.94 ft); Mar. 24 (9 a.m.) 32,500 cfs (13.54 ft); Aug. 18 (5 p.m.) 64,000 cfs (19.06 ft).

* Discharge measurement made on this day.

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 1955.

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.--16 years (1939-55), 127 cfs.

Extremes.--Maximum discharge during year, 6,800 cfs Aug. 18 (gage height, 15.73 ft); minimum observed, 6.6 cfs Oct. 1 (gage height, 1.46 ft).

1938-55: 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 period of 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.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 29, 30, Feb. 14)

Oct. 1 to Dec. 28

Dec. 29 to Sept. 30

1.5	7.0	3.0	170	1.6	20	5.0	532
1.6	10	5.0	460	1.8	35	7.0	940
1.8	25	7.0	830	2.0	54	10.0	1,990
2.0	44	8.0	1,045	2.5	116	15.0	3,510
2.5	104			3.0	190	15.0	5,830

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*a7	25	62	169	57	*166	96	113	49	33	35	66
2	19	34	56	138	70	152	93	106	48	32	26	69
3	9.4	66	48	*112	62	122	91	99	47	31	36	91
4	8.5	41	46	100	51	163	85	95	46	29	22	87
5	a8	37	42	94	55	265	82	91	44	27	21	73
6	a8	32	56	87	271	*602	82	84	44	26	47	66
7	a8	30	43	80	767	550	82	78	46	32	34	60
8	a8	28	46	75	250	258	76	77	57	33	33	55
9	a8	25	72	73	168	198	72	73	55	61	32	53
10	a8	23	101	72	133	163	72	71	51	70	42	53
11	a8	22	62	73	132	145	85	71	272	108	42	52
12	a8	21	51	72	132	134	442	72	220	69	306	*55
13	a8	21	60	69	103	120	172	96	93	72	692	48
14	a9	21	*918	65	100	108	451	130	70	38	302	46
15	148	21	582	65	99	106	568	91	62	33	569	45
16	*298	21	198	72	91	111	289	78	56	30	190	46
17	51	23	140	67	89	99	212	73	52	27	811	45
18	32	47	170	63	81	106	180	69	50	26	4,840	43
19	26	152	171	63	77	102	162	66	51	41	1,110	42
20	22	343	127	61	75	94	*145	63	54	32	307	49
21	20	152	104	56	72	119	133	62	47	26	205	42
22	19	101	89	60	73	496	285	102	44	24	158	39
23	17	80	95	60	190	307	169	98	42	24	151	41
24	16	69	81	58	134	198	158	69	34	42	34	119
25	16	68	74	56	112	160	228	64	40	46	102	51
26	16	57	67	54	98	157	272	57	47	29	95	43
27	17	52	67	55	133	133	184	54	41	24	86	40
28	17	52	66	47	142	120	156	53	38	24	80	40
29	*40	*113	358	45	-	112	134	57	35	*33	73	40
30	46	78	717	45	-----	106	123	66	*33	51	70	40
31	33	-	242	*47	-----	100	-	*53	-----	38	69	-
Total	958.9	1,855	5,011	2,253	3,817	5,772	5,359	2,431	1,877	1,183	10,695	1,568
Mean	30.9	61.8	162	72.7	136	186	179	78.4	62.6	38.2	345	52.3
Cfsm	0.266	0.533	1.40	0.627	1.17	1.60	1.54	0.676	0.540	0.329	2.97	0.451
In.	0.31	0.59	1.61	0.72	1.22	1.84	1.72	0.78	0.60	0.38	3.42	0.50

Calendar year 1954: Max 1,260 Min 6.2 Mean 65.5 Cfsm 0.565 In. 7.67
Water year 1954-55: Max 4,840 Min 7 Mean 117 Cfsm 1.01 In. 13.69

Peak discharge (base, 1,500 cfs).--Dec. 14 (8:30 p.m.) 1,700 cfs (10.33 ft); Aug. 18 (9:30 a.m.) 6,800 cfs (15.73 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement and records for Rivanna River at Palmyra.

Slate River near Arvonias, Va.

Location.--Lat 37°42'10", long 78°22'40", on left bank 100 ft upstream from Bumpers Bridge, 1.8 miles northwest of Arvonias, 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 1955.

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 at same site and datum. Sept. 18, 1935, to Feb. 14, 1936, staff gage at same site and datum.

Average discharge.--28 years (1926-35, 1936-55), 228 cfs.

Extremes.--Maximum discharge during year, 8,490 cfs Aug. 19 (gage height, 16.75 ft); minimum, 8.8 cfs Oct. 8 (gage height, 1.66 ft).

1926-55: 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 except those for periods of no gage-height record, which are fair. Prior to October 1947, occasional diurnal fluctuation at low flow caused by gristmill 5.4 miles above station.

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

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 30, 31)

Oct. 1 to Apr. 14, June 11 to July 10				Apr. 15 to June 10, July 11 to Sept. 30			
1.6	7.0	5.0	602	2.1	27	5.0	600
2.0	24	7.0	1,500	2.5	55	6.0	988
2.5	63	8.0	2,080	3.0	108	10.0	3,280
3.0	116	9.0	2,680	4.0	286	16.0	7,850
4.0	298						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*12	68	119	128	108	*726	138	142	97	56	59	a100
2	11	63	104	124	111	709	135	130	84	54	49	a200
3	13	88	95	*119	117	318	134	124	78	51	40	a380
4	17	81	88	111	98	427	128	118	74	50	35	a350
5	15	73	85	109	118	602	122	114	69	50	32	a220
6	13	78	134	106	437	1,960	124	107	67	52	33	a220
7	10	73	132	103	2,200	1,430	126	98	67	52	39	a250
8	8.8	65	95	98	707	497	120	96	80	65	57	a160
9	9.1	60	176	96	314	a350	115	92	83	74	49	a120
10	10	58	414	95	234	a250	114	89	74	222	51	a90
11	13	55	216	101	216	a230	124	89	354	824	53	a80
12	14	54	147	105	276	a240	654	90	532	402	462	a75
13	15	55	164	100	164	a250	308	114	190	156	2,230	70
14	15	54	2,060	97	152	a210	632	237	120	96	503	68
15	305	53	1,640	97	163	a200	1,100	168	100	77	2,130	68
16	951	53	375	116	147	a210	384	125	92	66	455	68
17	126	57	254	119	140	a210	263	106	84	48	2,320	26
18	70	97	246	108	132	a190	222	96	75	53	7,290	53
19	58	346	300	108	121	a200	201	91	76	49	5,850	26
20	52	639	200	108	117	a190	183	84	73	48	443	70
21	48	366	150	96	115	a190	167	82	77	47	233	70
22	46	130	119	112	115	a350	284	164	69	44	a200	64
23	43	124	171	144	365	a450	230	375	68	41	a130	65
24	43	106	138	136	393	a300	163	132	75	37	a160	70
25	42	109	132	119	273	a220	325	100	31	46	a150	76
26	42	103	122	109	220	a200	310	100	91	44	a130	70
27	41	92	110	104	260	a180	254	91	84	40	a120	64
28	43	96	112	97	388	a170	198	93	63	29	a140	54
29	*59	*172	124	100		a160	*177	81	38	*24	a100	74
30	92	182	134	100		a150	155	264	*58	43	a100	*61
31	85	150	150	*109		*a140		*151		50	a100	
Total	2,321.9	5,700	6,787	5,375	8,210	11,909	7,613	4,063	3,203	3,060	24,799	3,455
Mean	74.9	123	283	103	293	384	254	131	107	98.7	800	115
Cfsm	0.319	0.523	1.20	0.464	1.25	1.63	1.08	0.557	0.455	0.420	3.40	0.489
In.	0.37	0.58	1.38	0.53	1.30	1.88	1.20	0.64	0.51	0.48	3.92	0.55

Calendar year 1954: Max 2,400 Min 8.8 Mean 169 Cfsm 0.719 In. 9.76
Water year 1954-55: Max 7,290 Min 8.8 Mean 281 Cfsm 0.983 In. 13.34

Peak discharge (base, 2,100 cfs).--Dec. 14 (5 p.m.) 3,130 cfs (9.76 ft); Feb. 7 (7:30 a.m.) 2,390 cfs (8.53 ft); Mar. 6 (5:30 p.m.) 2,530 cfs (8.76 ft); Aug. 13 (5 a.m.) 3,050 cfs (9.62 ft); Aug. 15 (12 m. to 2 p.m.) 2,340 cfs (8.44 ft); Aug. 19 (2 to 3 a.m.) 8,490 cfs (16.75 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement and records for Appomattox River at Farmville and Williams River at Planas Mills.

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 1955.

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

Extremes.--Maximum discharge during year, 2,400 cfs Aug. 18 (gage height, 7.94 ft); no flow Oct. 1-14.

1951-55: Maximum discharge, that of Aug. 18, 1955; 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 determination of peak flow).

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 29, 31;
shifting-control method used Sept. 14-30)

Oct. 1 to Aug. 17

Aug. 18 to Sept. 30

0.19	0	2.0	32	1.7	1.0	3.5	117
.2	.01	2.5	76	1.8	2.5	3.9	232
1.1	1.3	3.0	140	2.1	10	5.0	575
1.2	2.4	4.0	333	2.4	23	6.0	1,050
1.4	5.7	5.0	620	2.7	45	7.0	1,650
1.6	11						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	aC	3.2	6.9	57	4.0	25	11	8.9	5.1	2.1	*a2	8.1
2	aO	3.7	8.9	40	6.2	a25	10	8.3	4.6	1.9	a2	7.2
3	aC	4.2	8.6	28	4.8	a25	9.8	8.0	*4.6	1.6	a2	22
4	aO	4.2	8.0	22	3.5	a25	8.3	7.5	3.4	1.5	a2	20
5	aO	4.6	7.8	18	3.7	a55	7.3	7.3	3.1	1.4	a3	16
6	aO	4.8	7.1	16	6.6	a170	7.5	6.8	3.0		a2	13
7	aO	4.4	6.2	14	16	*a130	7.3	6.4	3.8	3.5	a3	10
8	*aO	3.8	5.7	12	14	93	6.4	5.9	12	*2.4	a4	8.7
9	aO	3.8	7.5	11	12	59	5.9	5.7	13	7.2	a5	8.1
10	aO	3.4	7.5	9.8	11	a40	5.5	5.1	10	a9	a6	7.2
11	aO	3.1	6.6	9.5	11	a25	6.8	5.1	45	a5	a6	6.8
12	aO	3.1	6.2	8.3	9.2	a20	31	4.9	75	a4	a40	5.8
13	aO	3.1	6.6	7.8	8.6	a18	38	7.8	46	a3	a110	*5.2
14	aO	2.8	42	7.1	7.8	16	72	11	28	a2	a100	4.5
15	91	2.8	65	6.8	8.5	16	94	9.8	19	a2	*a90	4.5
16	49	2.7	45	6.8	7.8	16	71	9.2	14	a2	73	4.0
17	10	3.0	32	6.2	7.5	13	49	9.2	10	a2	436	3.5
18	5.5	62	38	5.7	*6.4	13	36	8.6	8.6	a2	*1130	3.5
19	3.7	143	45	5.5	5.9	12	28	7.5	8.6	a2	221	3.5
20	2.8	159	40	5.1	5.9	11	22	7.5	7.5	a2	96	4.0
21	2.4	105	28	4.9	6.4	13	*19	7.1	6.2	a2	60	2.8
22	2.1	60	21	5.1	7.3	36	19	8.3	5.5	a2	42	2.4
23	1.8	39	17	5.3	16	50	16	30	*5.1	a1	*29	3.0
24	1.6	27	14	5.3	18	45	15	25	4.4	a1	21	4.2
25	1.4	20	11	5.1	18	53	14	18	4.2	a1	18	4.2
26	1.3	15	9.5	*4.4	16	28	14	13	4.2	a1	14	3.2
27	*1.3	12	8.9	4.2	20	21	12	10	3.4	a1	13	2.8
28	1.6	11	8.6	3.5	22	18	11	8.0	3.1	a2	11	3.0
29	3.7	*13	24	3.5	-	16	10	7.3	2.7	a3	9.9	2.4
30	4.6	9.5	11.0	3.5	-----	13	9.8	8.6	2.4	a2	9.0	2.4
31	4.2		86	3.6	- - -	11	- - -	6.2	- - -	a4	10	-
Total	188.0	736.2	740.8	345.0	283.9	1,071	666.6	292.0	363.5	78.8	2,569.9	196.0
Mean	6.06	24.5	23.9	11.1	10.1	34.5	22.2	9.42	12.1	2.54	82.9	6.53
Cfsm	0.532	2.15	2.10	0.974	0.866	3.03	1.95	0.625	1.06	0.223	7.27	0.573
In.	0.61	2.40	2.42	1.12	0.92	3.49	2.18	0.95	1.18	0.26	8.38	0.64

Calendar year 1954: Max 333 Min 0 Mean 11.5 Cfsm 1.01 In. 13.62
Water year 1954-55: Max 1,130 Min 0 Mean 20.6 Cfsm 1.81 In. 24.55

Peak discharge (base, 150 cfs).--Oct. 15 (5 p.m.) 464 cfs (4.50 ft); Nov. 20 (10 a.m.) 176 cfs (3.22 ft); Mar. 6 (time unknown) 243 cfs (3.57 ft); Aug. 13 (time unknown) 388 cfs (4.22 ft); Aug. 18 (2:30 a.m.) 2,400 cfs (7.94 ft).

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

a No gage-height record; discharge estimated on basis of 2 discharge measurements and records for South Fork Rivanna River near Earlysville.

South Fork Rivanna River near Earlysville, 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 Earlysville, Albemarle County, and 8.7 miles upstream from confluence with North Fork.

Drainage area.--216 sq mi.

Records available.--December 1951 to September 1955.

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

Extremes.--Maximum discharge during year, 30,200 cfs Aug. 18 (gage height, 26.1 ft), from rating curve extended above 6,550 cfs on basis of contracted-opening determination of peak flow; minimum, 2.8 cfs Oct. 1 (gage height, 0.74 ft).
1951-55: Maximum discharge, that of Aug. 18, 1955; minimum observed, 2.2 cfs Sept. 18, 1954 (gage height, 0.71 ft).

Flood, probably in October 1942, reached a stage of about 33 ft, from information by local resident.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-15, Aug. 18 to Sept. 50						Oct. 16 to Aug. 17			
0.7	2.0	2.0	106	10.0	4,300	1.0	12	4.0	630
.8	4.0	2.5	195	15.0	8,900	1.3	30	5.0	1,010
1.0	12	3.0	313	20.0	16,000	1.6	64	7.0	2,060
1.2	23	5.0	1,010	21.0	18,000	2.4	198	9.0	3,480
1.5	48	7.0	2,060			3.0	329		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	58	112	496	94	233	191	146	68	31	*43	169
2	3.0	72	107	380	115	237	182	137	61	29	38	149
3	3.6	110	100	302	110	215	a170	131	*55	26	57	301
4	4.0	81	92	258	84	252	a170	124	50	24	27	299
5	3.6	75	88	227	89	915	a160	120	46	22	55	222
6	4.0	67	97	204	202	2,280	a140	112	44	21	26	204
7	4.0	61	80	182	715	*1,600	a140	105	55	98	29	156
8	*3.2	58	33	160	342	766	a140	102	152	*90	74	133
9	3.4	55	92	149	258	528	a130	96	226	105	92	116
10	4.0	50	112	140	231	421	a120	91	126	117	104	114
11	4.8	47	92	144	227	367	a200	92	401	116	120	106
12	5.2	46	83	135	217	326	a350	94	512	59	802	102
13	5.6	45	96	126	175	271	a450	123	299	44	1,720	*91
14	5.2	43	971	121	176	237	a1,200	198	213	38	1,130	85
15	581	41	836	112	176	223	a1,000	153	166	34	*985	81
16	818	40	465	115	155	229	a500	126	133	29	512	78
17	157	47	329	105	149	200	a400	115	107	27	2,820	75
18	97	205	354	102	*133	209	a340	108	89	44	*17,400	76
19	72	896	367	99	123	194	a300	102	89	39	2,270	76
20	56	1,260	306	92	118	182	a270	96	96	33	962	75
21	46	715	254	96	110	204	a300	99	74	25	664	68
22	38	421	243	91	113	1,110	*276	104	64	22	528	67
23	33	299	231	88	200	698	231	171	*56	19	494	72
24	33	237	182	83	200	496	215	144	51	20	343	84
25	30	208	153	81	196	407	219	123	46	25	285	84
26	28	155	133	*83	185	367	229	102	54	21	257	74
27	*30	133	123	81	206	309	198	88	46	18	226	67
28	30	126	120	65	229	258	182	80	40	16	199	69
29	105	*160	459	60	-	237	167	86	36	62	185	65
30	89	128	1,500	80	-----	217	155	112	34	32	167	64
31	72	732	88	-----	202	-----	81	-----	43	187	-----	-----
Total	2,371.6	5,939	8,992	4,535	5,326	14,390	8,725	3,561	3,489	1,329	32,779	3,422
Mean	76.5	198	290	146	190	464	291	115	116	42.9	1,057	114
Cfsm	0.354	0.917	1.34	0.676	0.880	2.15	1.35	0.532	0.537	0.199	4.89	0.528
In.	0.41	1.02	1.54	0.78	0.92	2.48	1.51	0.61	0.60	0.23	5.64	0.59

Calendar year 1954: Max 3,840 Min 2.2 Mean 135 Cfsm 0.625 In. 8.45
Water year 1954-55: Max 17,400 Min 3.0 Mean 260 Cfsm 1.20 In. 16.33

Peak discharge (base, 2,000 cfs)--Oct. 16 (2:30 a.m.) 2,400 cfs (7.53 ft); Dec. 30 (7:30 a.m.) 2,040 cfs (6.96 ft); Mar. 6 (7 p.m.) 4,070 cfs (9.73 ft); Aug. 14 (7 p.m.) 2,760 cfs (8.05 ft); Aug. 19 (7 a.m.) 30,200 cfs (26.1 ft).

* Discharge measurement made on this day.

A no gage-height record; discharge estimated on basis of records for North Fork Moormans River near Whitehall and 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 1955.

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.--21 years, 737 cfs.

Extremes.--Maximum discharge during year, 34,800 cfs Aug. 19 (gage height, 29.00 ft); minimum, 13 cfs Oct. 4, 5 (gage height, 2.41 ft).
1934-55: 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.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 30;
shifting-control method used Mar. 10-21)

2.4	12	4.5	900
2.5	18	5.0	1,450
2.7	39	9.0	4,400
3.0	95	13.0	6,950
3.3	185	17.0	10,600
3.6	320	19.0	12,800
4.0	550	26.0	26,800

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	230	*364	1,270	238	715	508	514	252	136	110	380
2	14	205	326	935	300	729	478	472	225	129	115	348
3	14	358	295	764	315	624	460	448	213	120	141	375
4	*13	331	270	652	225	715	436	436	205	112	105	631
5	13	261	256	580	208	2,090	408	414	193	108	78	496
6	15	234	261	526	450	4 760	397	392	182	100	150	478
7	15	201	243	484	2,860	8,800	402	364	182	100	193	414
8	16	*178	197	436	1,380	2,980	375	348	275	193	221	348
9	18	174	281	408	860	1,660	348	336	556	225	189	500
10	19	160	402	397	694	1,210	336	315	392	478	*189	285
11	16	150	342	392	638	1,000	336	310	1,320	526	238	275
12	17	147	285	397	722	936	877	310	2,360	333	1,070	266
13	18	144	285	370	490	806	1,120	331	918	205	4,920	*252
14	19	138	2,840	348	*490	701	1,440	556	624	168	1,800	245
15	516	135	5,540	326	502	652	3,660	532	490	147	2,980	238
16	3,820	132	1,650	336	490	659	2,100	456	414	135	1,320	234
17	659	132	909	336	454	631	1,170	380	353	118	2,430	234
18	336	147	813	305	430	598	936	353	310	108	24,400	217
19	255	508	900	295	386	631	820	380	285	213	26,000	213
20	174	2,260	750	295	370	574	750	310	310	129	3,970	221
21	144	1,720	624	266	353	*610	666	300	285	115	1,680	221
22	126	956	478	256	348	2,100	800	348	243	93	1,040	193
23	112	687	484	266	660	2,840	736	532	213	84	896	193
24	100	550	502	256	785	1,160	666	460	201	91	726	225
25	95	484	408	248	659	927	876	380	189	110	566	261
26	93	419	348	230	586	836	1,030	336	185	123	518	243
27	91	342	320	230	610	778	792	295	185	91	466	209
28	100	310	315	205	743	880	680	270	*171	76	419	201
29	141	454	1,060	171	---	610	804	261	154	95	380	201
30	370	466	4,480	180	---	568	348	348	147	118	370	189
31	342	---	2,540	185	---	532	---	*342	---	112	353	---
Total	7,767	12,593	28,748	12,346	17,347	41,092	24,823	11,809	12,032	4,896	78,033	8,584
Mean	251	420	927	398	620	1,326	827	381	401	158	2,517	286
Cfsm	0.372	0.622	1.37	0.590	0.918	1.96	1.23	0.564	0.594	0.234	3.73	0.424
In.	0.43	0.69	1.58	0.68	0.96	2.26	1.37	0.65	0.66	0.27	4.30	0.47

Calendar year 1954: Max 6,820 Min 12 Mean 384 Cfsm 0.569 In. 7.72
Water year 1954-55: Max 26,000 Min 13 Mean 713 Cfsm 1.06 In. 14.32

Peak discharge (base, 6,000 cfs).--Dec. 15 (1:30 a.m.) 7,750 cfs (14.00 ft); Mar. 7 (6 a.m.) 8,810 cfs (15.18 ft); Aug. 13 (12 m.) 6,020 cfs (11.67 ft); Aug. 19 (2 a.m.) 34,800 cfs (29.00 ft).
* Discharge measurement made on this day.

JAMES RIVER BASIN

Willis River at Flanagan 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 Flanagan Mills, Cumberland County, half a mile downstream from Trices Lake, and 4 miles downstream from Reynolds Creek.

Drainage area.--247 sq mi.

Records available.--April 1926 to January 1935, September 1936 to September 1955.

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.--27 years (1926-34, 1936-55), 243 cfs.

Extremes.--Maximum discharge during year, 8,100 cfs Aug. 19 (gage height, 21.35 ft); minimum, 11 cfs Oct. 1, 2, 3, 4 (gage height, 2.82 ft).
1926-35, 1936-55: 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 except those for periods of no gage-height record, which are fair. Complete regulation of flow from Trices Lake, tributary to Willis River, slightly affects flow at gage.

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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 19 to Nov. 19)
Oct. 1 to May 23, Aug. 20 to Sept. 30 May 24 to Aug. 19

2.7	8	4.0	70	3.0	21	10.0	845
2.9	13	5.0	154	3.4	40	13.0	1,720
3.2	27	6.0	292	4.2	97	15.0	2,720
3.5	42	8.0	651	5.0	180	17.0	4,400
				6.0	296	19.0	6,100
				8.0	651		

Note.--Same as following table above 8.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	68	*247	124	a100	499	120	133	93	36	*45	a95
2	13	65	143	112	a100	537	116	124	68	37	38	a110
3	12	75	112	108	a100	398	116	112	57	30	33	a150
4	*12	69	104	104	96	414	112	104	58	30	28	a230
5	18	67	90	98	a130	600	108	94	59	*27	26	a350
6	16	76	104	96	a260	1,060	104	86	49	29	27	a280
7	12	69	124	94	a400	1,540	104	81	45	34	21	a220
8	15	*66	120	91	a600	1,920	104	74	55	33	26	a220
9	13	58	124	86	a800	1,240	100	69	69	36	26	a180
10	13	54	308	86	a450	380	91	66	66	50	44	a110
11	12	53	348	89	a250	284	88	64	76	366	45	a80
12	12	51	228	88	a240	262	135	83	142	518	242	*a70
13	12	50	166	100	a230	232	178	69	*218	334	970	68
14	15	48	632	100	*a220	204	277	204	129	164	980	65
15	96	48	900	96	191	178	651	316	75	87	a900	60
16	358	48	1,000	98	191	184	784	198	60	66	a900	59
17	432	48	1,290	100	172	191	499	116	53	50	a1,500	59
18	272	51	442	98	160	178	244	94	51	42	a3,000	54
19	80	65	300	*94	143	178	204	79	46	36	a6,000	57
20	59	109	277	94	124	178	178	71	45	32	a2,500	66
21	49	220	199	90	120	*172	154	68	46	34	a350	72
22	47	308	145	93	116	308	166	65	44	30	a250	63
23	44	160	128	116	178	556	180	*112	41	41	a200	59
24	39	112	124	133	277	461	154	326	42	48	a160	62
25	36	100	124	124	300	262	277	218	51	39	a140	61
26	38	95	108	112	262	211	390	117	51	35	a120	63
27	38	87	100	a110	262	191	332	88	53	31	a110	63
28	40	78	104	a110	406	166	218	76	54	35	a100	60
29	46	144	112	a100	-	143	166	67	44	37	a90	61
30	71	262	133	a100	-----	133	143	108	38	36	a90	59
31	77		139	a100	----	*124	-----	93	-----	42	a90	-----
Total	2,008	2,802	6,471	3,154	6,878	13,384	6,461	3,555	1,980	2,445	19,051	3,206
Mean	64.8	85.4	275	102	246	432	215	115	66.0	78.9	815	107
Cfs/m	0.282	0.378	1.11	0.415	0.986	1.75	0.870	0.466	0.267	0.319	2.49	0.433
In.	0.30	0.42	1.28	0.48	1.04	2.02	0.97	0.54	0.30	0.37	2.87	0.48
Calendar year 1954: Max	2,200			Min 10		Mean 187		Cfs/m 0.757	In. 10.30			
Water year 1954-55: Max	6,000			Min 11		Mean 201		Cfs/m 0.814	In. 11.07			

Peak discharge (base, 1,700 cfs).--Mar. 8 (7:30 a.m.) 2,000 cfs (13.73 ft); Aug. 19 (time unknown) 8,100 cfs (21.35 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 2 high-water marks, 2 discharge measurements, and records for Appomattox River at Farmville and Slate River near Arvonnia.

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 1955.

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-weight or chain gage at same site and datum.

Average discharge.--55 years (1899-1904, 1905-55), 7,157 cfs.

Extremes.--Maximum discharge during year, 104,000 cfs Aug. 19 (gage height, 24.48 ft); minimum, 555 cfs Oct. 13 (gage height, 0.35 ft); minimum daily, 564 cfs Oct. 13. 1899-1955: 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 except those for periods of no gage-height record, which are fair. 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 table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.5	510	14.0	40,200
2.0	3,080	18.0	59,200
5.0	9,000	24.0	99,000
10.0	24,100		

Discharge, in cubic feet per second, water year¹ October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	660	2,660	5,400	40,000	2,860	17,900	8,060	5,600	3,420	1,920	1,690	2,250
2	650	2,480	5,200	25,000	2,910	26,300	7,410	5,200	2,740	1,640	1,690	2,910
3	650	2,910	5,200	16,000	3,500	29,400	6,800	4,540	2,400	1,610	*1,740	2,660
4	650	3,250	4,720	13,000	3,250	22,400	6,400	4,650	1,900	1,580	1,530	4,450
5	630	3,000	4,100	11,000	3,080	20,300	6,000	4,360	2,060	1,370	1,390	4,630
6	630	2,740	4,180	10,000	4,100	33,000	5,800	4,180	2,140	1,690	1,320	3,930
7	833	2,320	44,500	29,000	19,000	64,700	5,400	4,020	1,840	1,630	1,500	3,590
8	*724	2,400	45,200	28,000	36,700	73,200	5,200	4,020	1,960	1,760	1,480	3,160
9	680	2,030	45,000	28,500	35,500	43,700	4,820	3,680	3,250	1,930	1,630	3,000
10	620	2,320	45,600	28,000	21,000	23,800	4,630	3,420	4,450	2,570	1,680	2,910
11	600	2,000	46,300	25,800	14,700	17,800	4,450	3,340	4,020	4,390	3,230	2,160
12	582	2,000	47,600	25,500	12,700	14,700	8,800	3,340	14,200	5,200	3,160	*2,480
13	564	2,080	47,800	25,200	10,800	13,300	10,800	3,340	10,000	4,450	15,500	1,960
14	573	2,040	49,000	24,700	9,750	12,200	9,000	4,270	8,060	3,160	10,000	1,920
15	924	1,920	41,000	44,500	8,760	10,800	23,000	4,720	*6,000	2,660	15,800	1,930
16	21,100	1,690	41,000	44,500	8,060	10,000	25,500	4,180	5,010	2,230	10,800	1,980
17	44,500	2,000	40,500	44,300	7,410	10,500	20,000	4,020	4,100	2,080	11,200	1,820
18	24,200	1,780	40,000	44,100	7,000	14,700	15,300	4,450	3,420	1,640	68,200	1,820
19	9,000	2,660	49,600	3,840	6,200	15,600	12,700	4,360	3,160	1,780	95,400	1,930
20	6,000	6,400	40,000	3,930	5,400	16,800	*11,100	3,840	2,740	1,800	47,600	1,640
21	4,020	17,800	40,500	3,840	5,400	15,600	10,000	3,590	2,820	1,370	19,100	1,720
22	3,680	30,200	41,000	3,500	5,200	15,900	10,800	3,420	2,570	1,210	11,100	1,690
23	2,740	22,000	40,000	3,760	*6,000	22,700	9,750	4,180	2,400	1,240	7,430	1,580
24	2,320	13,900	48,000	3,760	9,000	33,000	8,290	4,450	2,400	1,340	6,270	1,560
25	2,400	10,000	47,000	3,420	9,000	24,100	8,760	4,020	2,320	1,480	4,980	1,800
26	2,130	8,520	46,400	3,590	12,200	17,400	9,750	3,680	2,230	1,550	4,160	1,680
27	1,820	6,400	46,000	3,250	10,500	14,400	8,060	3,500	2,480	1,480	3,720	1,580
28	1,840	5,600	45,400	3,500	11,300	12,400	6,800	3,080	*2,320	1,600	3,190	1,740
29	1,900	5,400	45,200	2,910	---	11,100	6,600	2,910	1,930	1,580	45,150	1,770
30	2,230	5,800	45,000	2,820	---	9,750	6,000	3,340	1,960	1,520	45,000	1,680
31	2,660	---	45,000	3,250	---	9,250	---	5,600	---	1,690	42,700	---
Total	142,510	176,280	271,400	228,470	291,080	676,700	283,780	125,280	110,300	65,130	363,290	69,910
Mean	4,597	5,876	8,755	7,370	10,400	21,830	9,459	4,041	3,677	2,036	11,720	2,330
Cfsm	0.736	0.941	1.40	1.28	1.67	3.50	1.52	0.647	0.589	0.326	1.88	0.373
In.	0.85	1.05	1.61	1.56	1.74	4.04	1.70	0.75	0.66	0.38	2.17	0.42

Calendar year 1954: Max 58,700 Min 537 Mean 5,142 Cfsm 0.824 In. 11.19
Water year 1954-55: Max 95,400 Min 564 Mean 7,677 Cfsm 1.23 In. 16.73

Peak discharge (base, 40,000 cfs).--Oct. 16 (12 p.m.) 47,900 cfs (15.73 ft); Dec. 31 (time unknown) 46,700 cfs (15.90 ft); Feb. 9 (4:30 a.m.) 41,400 cfs (14.29 ft); Mar. 8 (5 a.m.) 75,200 cfs (20.83 ft); Aug. 19 (7 a.m.) 104,000 cfs (24.48 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for stations at Bent Creek and Scottsville.

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 1955.

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.--11 years, 20.2 cfs.

Extremes.--Maximum discharge during year, 2,010 cfs Aug. 18 (gage height, 6.98 ft); minimum,

0.5 cfs Oct. 1, 2 (gage height, 1.58 ft).

1944-55: Maximum discharge that of Aug. 18, 1955; minimum, 0.4 cfs Sept. 11, 1954

(gage height, 1.56 ft).

Revisions.--The maximum discharge for the water year 1954 has been revised to 266 cfs

June 15, 1954 (gage height, 3.16 ft), superseding figure published in WSP 1333.

Remarks.--Records good.

Revisions (water years).--WSP 1203: 1948. Revised figures of discharge, in cubic feet per second, for high-water period in the water year 1954, superseding figures published in WSP 1333, are given herewith:

June 15, 1954..... 39

June 16, 1954..... 128

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
June 1954.....	367.7	128	4.4	12.3	0.535	0.60
Water year 1953-54.....	-	140	.6	12.0	.522	7.07

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-15, Feb. 6 to May 30

Oct. 16 to Feb. 5, May 31 to Sept. 30

1.5	0.1	2.0	15	1.6	0.6	2.3	56
1.6	.6	2.1	26	1.7	1.5	3.0	220
1.7	1.5	2.3	56	1.8	3.2	3.8	482
1.8	3.6	2.5	98	1.9	6.8	5.0	980
1.9	7.8			2.0	14	6.0	1,480

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.50	4.7	*7.4	5.8	6.4	29	10	12	4.7	2.0	*2.0	12
2	.87	6.4	6.8	5.8	9.9	27	10	12	4.0	1.6	1.8	27
3	1.8	12	5.8	5.4	8.5	20	10	10	3.8	1.8	1.5	19
4	*.87	6.4	5.4	5.4	6.4	26	8.5	9.5	3.5	1.6	1.4	18
5	.60	6.5	5.8	5.4	5.8	36	8.8	8.8	3.2	*1.5	1.4	12
6	.78	7.4	11	5.4	15	*85	8.8	8.3	3.0	1.4	1.4	9.9
7	.96	5.4	8.5	5.4	5.4	94	9.5	7.2	3.8	1.9	1.4	8.5
8	.87	*4.7	6.4	5.4	27	39	8.8	7.2	14	5.4	4.3	7.4
9	.87	4.3	11	5.4	18	26	8.3	6.8	5.8	7.4	4.3	6.8
10	.87	4.0	20	5.4	14	22	8.3	6.4	5.0	5.4	3.2	6.4
11	.87	4.0	12	5.8	17	19	8.8	6.4	15	46	5.2	7.7
12	.78	4.0	9.2	5.8	26	19	15	6.4	12	77	55	*7.7
13	.69	4.0	12	5.8	15	17	12	10	*5.8	40	*270	6.4
14	.78	3.8	*48	5.8	*15	15	62	25	4.7	11	136	5.8
15	6.0	3.8	46	6.4	15	15	43	15	4.3	6.4	69	5.4
16	15	3.8	21	8.5	15	16	23	10	4.0	4.3	40	5.0
17	5.4	4.0	13	*7.4	14	14	17	8.3	3.5	3.5	*192	5.0
18	3.2	4.3	12	6.8	12	15	*15	7.2	3.5	3.2	1,330	5.0
19	2.8	4.7	12	6.8	11	14	14	6.8	4.3	5.4	275	9.9
20	2.6	6.4	9.2	6.8	11	12	12	5.5	4.7	3.8	62	33
21	2.2	7.4	7.7	5.8	10	*14	12	4.7	3.8	2.8	22	12
22	1.9	6.8	6.8	8.5	10	29	20	9.5	3.2	2.6	16	8.5
23	1.8	5.8	6.8	11	15	23	14	*17	3.8	2.6	13	8.5
24	1.6	7.7	7.4	8.5	15	16	26	8.8	4.7	3.5	12	8.5
25	1.6	6.8	6.8	7.7	18	14	56	7.2	3.8	3.8	11	7.7
26	1.6	5.8	5.8	6.8	14	14	29	6.0	4.3	2.6	11	6.8
27	1.6	4.7	6.4	6.8	23	12	20	5.1	3.0	2.0	8.5	6.4
28	1.6	5.4	6.8	5.8	29	12	16	4.7	2.6	1.9	8.5	6.8
29	3.8	19	6.8	5.8	-	11	14	4.7	2.2	2.0	8.5	6.4
30	8.5	11	6.8	5.8	-	11	14	17	2.0	2.4	7.4	6.8
31	7.4	-	5.8	4.7	-	10	-	6.4	-	3.0	6.8	-
Total	80.71	187.0	356.4	197.9	450.0	726	534.8	279.9	146.0	259.8	2,581.6	296.3
Mean	2.60	6.23	11.5	6.38	16.1	23.4	17.8	9.03	4.87	8.38	83.3	9.88
Cfsam	0.113	0.271	0.500	0.277	0.700	1.02	0.774	0.393	0.212	0.364	3.62	0.450
In.	0.13	0.30	0.58	0.32	0.73	1.18	0.86	0.45	0.24	0.42	4.17	0.48
Calendar year 1954: Max			140	Min	0.50	Mean	12.2	Cfsm	0.530	In.	7.23	
Water year 1954-55: Max			1,330	Min	0.50	Mean	16.7	Cfsm	0.726	In.	9.86	

Peak discharge (base, 200 cfs).--Aug. 13 (4 p.m.) 364 cfs (3.47 ft); Aug. 18 (9 a.m.) 2,010 cfs (6.98 ft).

* 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 Boshier Dam on James River, 1.6 miles (corrected) upstream from Huguenot Memorial Bridge, and 2.0 miles (corrected) west of city limits of Richmond, Henrico County.

Records available--September 1936 to September 1955.

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--19 years, 884 cfs.

Extremes--Maximum discharge during year, 2,340 cfs Aug. 20 (gage height, 13.54 ft); no flow at times when headgates were closed.
1936-55: 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 Boshier 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.

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)

0.88	0	4.0	361
.9	1.0	6.0	680
1.0	10	8.0	1,280
2.0	111	14.0	2,460

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	680	870	1,030	1,110	930	1,080	1,010	1,010	970	870	*850	a800
2	680	870	*1,010	1,090	930	1,090	1,010	1,010	930	870	850	a800
3	680	870	1,010	1,090	930	1,130	1,010	1,010	910	850	850	a0
4	662	890	1,010	1,070	930	1,130	1,010	990	910	850	850	a400
5	*662	910	990	1,070	930	1,110	1,010	990	870	850	830	a800
6	626	890	970	1,070	930	1,130	1,010	990	890	830	830	a800
7	626	890	990	962	1,050	1,090	1,010	970	890	*850	810	a800
8	483	870	990	300	1,070	1,110	1,010	970	890	850	830	a800
9	0	870	990	1,050	1,070	1,110	1,010	950	890	890	830	a800
10	188	*870	1,030	1,030	1,090	1,070	990	950	970	890	850	a800
11	626	870	1,030	1,010	1,050	1,090	990	950	990	970	890	a800
12	626	850	1,050	1,010	1,070	1,090	990	950	1,030	1,030	1,030	a800
13	575	850	1,030	990	1,070	1,070	1,050	950	1,030	1,030	990	a800
14	558	870	1,030	990	1,070	1,070	1,030	970	*1,030	950	1,070	a800
15	558	870	1,110	970	*1,070	1,030	1,030	1,010	1,050	890	1,070	*a850
16	626	870	1,070	970	1,090	1,030	990	990	1,010	870	1,030	a850
17	890	850	1,070	950	1,110	950	1,010	970	1,070	870	990	a800
18	990	870	1,050	950	1,090	700	1,010	970	950	850	990	a800
19	990	870	1,050	950	1,070	0	*1,010	990	930	830	a1,600	a800
20	1,010	930	1,070	950	1,030	240	1,010	970	930	830	a1,700	a800
21	970	990	1,070	889	1,030	1,070	1,050	950	910	830	a1,000	a800
22	910	1,050	1,070	0	1,010	1,030	1,030	950	910	790	a1,000	a800
23	590	1,070	1,070	288	1,030	*1,070	1,030	970	890	790	a800	a800
24	870	1,050	1,050	970	1,070	1,050	1,010	990	890	830	a900	a800
25	850	1,050	1,030	950	1,090	890	1,030	990	890	810	a900	a800
26	850	1,050	1,030	950	1,090	790	1,030	970	890	830	a900	a800
27	830	1,030	1,030	950	1,090	990	1,010	950	890	830	a900	a800
28	830	990	1,010	950	1,110	1,010	1,010	930	890	830	a850	a800
29	830	990	990	930	-	1,030	1,030	930	870	830	a850	a800
30	850	1,030	1,050	910	-----	1,030	1,010	930	870	760	a850	a800
31	850	-	1,090	930	-----	1,030	-----	990	-	248	a850	-
Total	22,266	27,800	32,070	28,300	29,100	30,320	30,480	30,110	27,940	26,098	29,640	22,700
Mean	718	927	1,035	913	1,039	978	1,016	971	931	842	956	757
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 1,130 Min 0 Mean 886 Cfsm - In. -
Water year 1954-55: Max 1,700 Min 0 Mean 923 Cfsm - In. -

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, recorded range in stage, and records for stations at Cartersville and near Richmond.

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 (corrected) 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 1955.

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.--20 years (1935-55), 7,635 cfs (includes flow in James River and Kanawha Canal).

Extremes.--Maximum discharge during year, 98,700 cfs Aug. 20 (gage height, 18.36 ft); minimum daily, 46 cfs Oct. 6, 7.

1934-55: 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.

Remarks.--Records good. City of Richmond diverts an average of 46 cfs from gage pool.

Flow regulated by powerplants above station. James River & Kanawha Canal diverts around station. For canal records, see preceding page. Records of chemical analyses and water temperatures for the water year 1955 are given in WSP 1400.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-17, June 13 to Sept. 30

Oct. 18 to June 12

2.1	46	5.0	4,600	3.5	530	10.0	26,600
2.94	46	7.0	11,500	4.0	1,480	14.0	54,700
3.0	70	10.0	26,600	5.0	4,150	16.0	71,100
3.1	140	14.0	54,700	7.0	11,100		
3.5	880	18.0	94,000				
4.0	2,000						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	2,140	4,900	37,700	1,660	11,900	7,830	4,900	3,440	1,260	964	2,480
2	70	2,160	4,600	24,800	1,520	25,600	6,790	4,600	2,140	1,240	922	2,350
3	62	2,240	*4,300	15,500	1,820	27,800	6,310	4,090	1,500	943	943	3,130
4	54	2,270	3,970	11,500	2,020	25,400	5,680	3,500	1,250	922	943	2,600
5	50	2,530	3,440	8,920	2,020	19,600	5,520	3,680	808	859	733	4,740
6	*46	2,500	3,020	7,830	1,990	26,000	5,060	3,240	956	670	570	3,800
7	46	2,140	3,160	6,950	7,110	50,100	4,600	3,050	1,090	*880	490	3,540
8	50	1,630	3,420	6,950	30,300	68,600	4,450	2,910	1,130	817	775	3,020
9	650	1,420	3,420	5,680	39,100	62,700	4,300	2,670	1,090	1,430	712	2,810
10	712	1,010	3,880	5,370	25,400	28,400	3,880	2,400	2,720	1,430	858	2,480
11	275	1,090	4,900	4,900	16,000	18,500	3,590	2,270	3,190	2,800	1,330	2,320
12	119	844	5,680	4,750	15,200	14,600	3,790	2,140	7,250	7,460	4,870	1,750
13	62	862	2,470	4,600	11,100	12,800	6,190	2,240	12,800	7,700	19,400	1,900
14	50	918	6,790	4,300	9,490	11,500	9,110	2,610	7,880	4,330	17,900	1,430
15	54	844	21,400	4,300	8,370	10,300	15,100	3,590	6,680	2,790	12,800	*1,340
16	3,290	808	16,900	4,150	7,290	9,300	26,000	3,530	5,160	1,820	14,600	1,410
17	40,600	666	12,300	3,820	6,950	9,110	21,900	3,050	3,930	1,540	13,200	1,480
18	34,500	828	11,100	3,390	6,310	11,500	16,000	2,880	3,180	1,320	51,700	1,340
19	12,700	754	9,680	2,640	5,680	15,500	12,800	3,360	2,630	1,030	86,400	1,520
20	7,290	1,580	9,300	2,720	4,750	15,500	11,100	2,940	2,530	1,150	86,400	2,350
21	5,220	10,900	9,110	2,670	4,600	15,500	9,490	2,500	2,100	1,110	30,000	1,520
22	3,440	27,000	9,110	3,270	4,300	*14,100	9,110	2,420	2,180	650	14,200	1,450
23	2,770	24,200	7,830	3,020	4,450	19,600	9,870	2,580	1,850	450	9,140	1,430
24	2,040	15,000	6,630	2,420	5,990	27,800	8,190	3,240	1,730	630	7,190	1,340
25	1,680	9,870	5,840	2,370	7,830	29,100	8,010	*3,210	1,700	691	5,740	1,300
26	1,570	7,830	5,220	2,140	9,870	18,500	9,110	2,660	1,820	712	4,880	1,520
27	1,440	6,470	4,750	2,190	10,300	14,600	8,730	2,480	1,640	796	4,880	1,240
28	1,230	5,370	4,300	1,990	10,100	12,300	6,630	2,190	1,850	754	4,460	1,110
29	1,150	4,900	3,940	1,920	-	10,700	5,990	1,870	1,520	880	3,150	1,240
30	1,380	4,900	4,700	1,520	-	9,300	5,370	2,090	1,240	880	2,660	1,260
31	1,940	-	21,100	1,520	-	8,370	-	3,710	-	1,340	2,630	-
Total	124,652	145,672	225,160	195,800	259,520	652,580	262,500	92,800	88,994	51,284	405,420	61,070
Mean	4,021	4,656	7,263	6,316	9,269	21,050	8,750	2,994	2,966	1,654	13,080	2,036
(+)	718	927	1,035	913	1,039	978	1,016	571	931	842	956	757

Adjusted for diversion by James River & Kanawha Canal

Mean	4,739	5,783	6,298	7,229	10,310	22,030	9,766	3,965	3,897	2,496	14,040	2,793
Cfsm		0.856	1.23	1.07	1.53	3.26	1.45	0.587	0.577	0.369	2.08	0.413
In.	0.81	0.96	1.42	1.23	1.59	3.76	1.62	0.68	0.64	0.43	2.40	0.46

		Observed				Adjusted						
Calendar year 1954:	Max	53,200	Min	46	Mean	4,515	Mean	5,401	Cfsm	0.799	In.	10.85
Water year 1954-55:	Max	86,400	Min	46	Mean	7,029	Mean	7,952	Cfsm	1.18	In.	16.00

Peak discharge (base, 50,000 cfs).--Mar. 8 (11 p.m.) 72,000 cfs (16.10 ft); Aug. 20 (1:30 a.m.) 98,700 cfs (18.36 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 Drewrys Bluff, Va.

Location--Lat 37°27'40", long 77°28'00", on left bank 300 ft downstream from highway bridge, 600 ft downstream from Chesterfield County Reservoir, 2.4 miles northeast of town of Drewrys Bluff, Chesterfield County, 2.7 miles downstream from Pocoshock Creek, and 3.7 miles upstream from mouth.

Drainage area--54 sq mi, approximately.

Records available--September 1942 to September 1955.

Gage--Water-stage recorder. Altitude of gage is 60 ft (from topographic map). Prior to Oct. 1, 1952, water-stage recorder at site 300 ft upstream at different datum.

Average discharge--13 years, 53.3 cfs (unadjusted).

Extremes--Maximum discharge during year, 4,700 cfs Aug. 18 (gage height, 10.12 ft); minimum, 0.19 cfs July 5 (gage height, 1.62 ft).

1942-55: Maximum discharge, 7,270 cfs July 18, 1945 (gage height, 10.1 ft, site and datum then in use); minimum, 0.12 cfs Aug. 13, 1953, and Sept. 6, 7, 1954.

Remarks--Records good. Chesterfield County diverts up to 1.5 cfs for water supply from reservoir 600 ft upstream from gage.

Revisions (water years)--WSP 1032: 1943-44(M).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.6	0.14	2.4	14	5.5	1,260
1.7	.38	2.6	31	6.0	2,350
1.8	.90	3.0	70	6.5	3,020
1.9	1.50	3.5	130	8.0	3,750
2.1	3.9	4.0	265	10.2	4,740
2.2	5.7	4.5	480		
2.3	9.2	5.0	860		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.69	5.5	6.4	15	11	63	28	34	11	1.5	12	26
2	19	6.8	*6.4	12	17	62	28	29	6.8	1.0	*7.4	22
3	4.8	8.5	6.0	10	21	52	26	26	6.4	.59	5.7	28
4	1.9	7.8	5.5	9.7	15	67	25	23	4.4	.31	4.3	36
5	*1.5	8.8	5.7	9.2	13	90	22	20	3.6	*.33	3.9	28
6	5.1	11	12	10	22	272	24	18	2.8	.38	3.8	23
7	3.9	7.8	11	9.7	89	200	26	15	2.9	3.4	2.6	19
8	2.3	6.0	8.5	8.5	84	118	22	13	5.5	28	2.4	14
9	1.7	*5.3	12	8.5	44	88	20	12	5.2	28	3.2	12
10	1.3	5.2	26	8.5	36	72	19	11	5.3	16	3.9	12
11	1.0	4.8	20	12	41	63	20	11	30	16	5.3	12
12	.69	4.6	16	13	74	62	36	11	49	155	8.11	11
13	.69	5.2	18	13	47	56	36	12	20	74	*2.190	10
14	.64	5.3	53	12	37	48	88	24	*10	31	306	11
15	19	4.4	45	12	*37	43	170	30	7.8	16	130	*10
16	18	4.1	32	16	37	46	100	21	6.0	10	173	9.2
17	5.3	4.4	24	17	36	43	68	14	4.6	6.8	1,320	8.5
18	3.5	4.8	29	*16	33	42	54	13	3.5	6.4	3,130	8.2
19	2.9	5.0	34	16	29	44	*47	12	5.2	12	515	478
20	2.5	6.0	25	14	26	38	40	11	5.2	5.3	160	*562
21	2.1	5.7	19	13	26	36	36	8.8	4.3	4.3	93	164
22	2.1	6.0	16	16	24	*67	48	10	3.3	2.9	68	90
23	1.9	6.4	16	24	29	78	47	14	2.4	2.1	54	70
24	1.8	7.8	16	21	34	60	48	*13	2.8	57	42	234
25	1.6	9.7	14	19	50	47	90	11	8.9	61	37	73
26	1.8	7.1	13	16	41	44	77	7.4	16	15	36	48
27	2.0	5.5	12	16	48	38	72	5.7	6.8	8.2	32	37
28	2.2	5.5	12	14	69	34	56	4.8	3.6	8.2	27	35
29	3.8	8.8	13	13	-	31	44	5.2	2.5	34	24	30
30	11	8.8	13	13	-----	31	38	32	2.0	25	22	36
31	10	-	14	11	-----	30	-----	16	-	23	20	-
Total	136.51	192.6	554.5	418.1	1,050	2,065	1,455	487.9	247.8	652.71	9,244.5	1,154.9
Mean	4.40	6.42	17.9	13.5	37.5	66.6	48.5	15.7	8.26	21.1	298	71.8
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954: Max	612			Min 0.12	Mean 31.9	Cfsm -	In. -					
Water year 1954-55: Max	3,130			Min 0.31	Mean 51.1	Cfsm -	In. -					

Peak discharge (base, 500 cfs)--Aug. 13 (3 a.m.) 3,850 cfs (8.22 ft); Aug. 18 (7 a.m.) 4,700 cfs (10.12 ft); Sept. 20 (5:30 a.m.) 660 cfs (5.00 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 1955.

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.--9 years, 69.5 cfs.

Extremes.--Maximum discharge during year, 6,440 cfs Aug. 18 (gage height, 9.00 ft); minimum, 6.8 cfs Oct. 1, 2 (gage height, 1.45 ft).

1946-55: Maximum discharge, that of Aug. 18, 1955; 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.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-15		Oct. 16 to Aug. 18		Aug. 19 to Sept. 30	
1.4	5.5	1.7	14	5.4	432
1.6	11	2.4	45	5.8	650
1.9	25	3.0	78	6.2	1,060
3.5	110	4.0	150	6.8	2,040
4.0	160	4.8	280	9.0	6,440

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.5	25	*42	35	33	102	41	42	25	18	*20	280
2	9.9	27	38	34	36	82	40	40	24	17	18	272
3	26	31	34	32	32	68	40	38	24	16	18	228
4	*15	27	32	32	30	193	38	37	22	16	15	138
5	9.5	31	32	33	31	184	36	36	22	*15	15	79
6	9.5	32	43	33	110	392	37	34	21	14	15	58
7	9.5	27	41	32	380	246	37	32	24	32	14	47
8	8.6	*24	40	30	182	104	34	32	36	60	17	40
9	10	23	48	32	89	79	33	29	36	66	19	35
10	11	23	80	30	69	66	53	28	28	226	20	34
11	10	23	52	36	67	60	36	29	50	266	28	33
12	9.5	23	42	37	70	98	54	34	44	95	65	30
13	10	24	61	34	59	83	46	68	*29	58	212	28
14	10	22	406	34	56	69	313	124	24	42	140	*28
15	111	22	581	32	51	66	691	71	23	34	532	28
16	195	23	124	36	47	75	190	54	22	29	153	27
17	63	24	81	*33	*46	64	100	42	22	26	240	26
18	34	30	76	32	43	69	*79	36	20	23	4,940	25
19	29	38	73	32	40	74	69	33	21	21	953	32
20	29	100	58	34	38	67	61	30	20	22	133	44
21	25	106	52	36	36	*61	56	28	18	21	73	31
22	23	70	56	38	36	151	58	56	17	19	58	28
23	22	46	52	47	56	118	54	*128	17	20	69	28
24	21	46	48	40	58	78	52	65	61	32	55	31
25	21	42	43	38	66	64	78	57	55	25	43	32
26	20	35	43	36	54	61	70	44	40	21	38	30
27	23	32	40	34	98	52	57	34	29	19	36	28
28	23	32	39	33	125	48	52	30	22	18	34	27
29	39	76	41	38	---	46	48	29	20	18	33	27
30	40	56	40	34	---	44	44	29	19	21	32	46
31	30	---	38	31	---	42	---	27	---	23	30	---
Total	904.0	1,140	2,476	1,068	2,038	3,002	2,577	1,396	835	1,333	8,066	1,820
Mean	29.2	38.0	79.9	34.4	72.8	96.8	85.9	45.0	27.8	43.0	260	60.7
Cfsm	0.417	0.543	1.14	0.491	1.04	1.38	1.23	0.643	0.397	0.614	3.71	0.867
In.	0.48	0.61	1.31	0.57	1.08	1.59	1.37	0.74	0.44	0.71	4.28	0.97

Calendar year 1954: Max 938 Min 5.5 Mean 52.0 Cfsm 0.743 In. 10.07

Water year 1954-55: Max 4,940 Min 7.5 Mean 75.0 Cfsm 1.04 In. 14.15

Peak discharge (base, 500 cfs).--Dec. 15 (2 a.m.) 1,050 cfs (6.19 ft); Mar. 6 (5:30 p.m.) 515 cfs (5.59 ft); Apr. 15 (1 a.m.) 1,200 cfs (6.30 ft); Aug. 15 (1:30 p.m.) 856 cfs (6.03 ft); Aug. 18 (11 a.m.) 6,440 cfs (9.00 ft).

* Discharge measurement made on this day.

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 14 miles downstream from Buffalo Creek.

Drainage area--306 sq mi.

Records available--March 1926 to September 1955.

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--29 years, 295 cfs.

Extremes--Maximum discharge during year, 11,000 cfs Aug. 19 (gage height, 19.76 ft); minimum, 22 cfs Oct. 4 (gage height, 3.24 ft).

1926-55: 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 good. Diurnal fluctuation at low flow caused by mills above station.

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

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Oct. 17 to Dec. 13,
Aug. 20 to Sept. 30)

3.3	26	11.0	1,350
4.0	80	14.0	2,200
4.8	172	16.0	3,800
6.0	344	19.0	9,400
8.0	685		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	84	*175	137	136	468	168	161	89	67	*83	117
2	54	82	140	135	138	484	161	149	84	64	69	329
3	63	95	121	132	133	359	158	137	81	61	65	500
4	*47	88	110	126	101	725	150	131	78	58	452	
5	37	91	107	122	104	934	141	126	76	*59	54	284
6	126	97	140	120	321	2,300	140	117	73	56	57	284
7	34	91	135	118	1,570	2,020	144	107	80	93	56	329
8	30	*82	118	111	1,350	725	135	104	113	100	78	214
9	32	78	185	111	536	436	126	101	124	105	83	142
10	36	76	359	109	344	352	125	94	103	322	74	122
11	36	75	256	118	299	299	131	94	148	665	73	120
12	36	76	176	133	366	314	214	104	324	665	270	116
13	36	76	211	120	242	329	235	201	*169	284	919	108
14	35	75	1,170	114	214	277	732	554	109	171	750	*106
15	244	74	1,910	114	228	256	1,780	359	93	120	1,570	104
16	912	74	785	122	*207	277	1,000	214	87	99	953	102
17	396	76	382	*126	200	270	468	169	82	86	992	103
18	158	96	314	118	185	242	*329	130	78	78	6,840	102
19	107	119	336	122	164	263	277	116	78	74	8,180	106
20	91	344	263	124	154	249	249	106	80	71	1,410	122
21	81	352	200	103	148	*242	214	99	75	70	421	107
22	70	358	152	145	148	515	214	161	71	66	278	95
23	66	166	186	182	235	590	207	*890	108	76	277	95
24	65	155	193	173	359	366	200	468	200	101	235	99
25	63	141	157	153	322	292	468	249	142	101	166	103
26	61	121	135	141	277	277	420	186	207	79	165	99
27	63	109	142	136	314	249	284	136	144	66	150	91
28	66	106	138	120	536	214	228	113	87	69	140	94
29	97	277	142	110	-	193	200	105	76	70	132	103
30	124	277	169	122	-----	185	176	107	71	76	126	117
31	103	-	161	102	-----	173	-----	107	-----	92	120	
Total	3,403	4,007	9,166	3,919	9,331	14,875	9,454	5,895	3,330	4,164	24,862	4,865
Mean	110	134	296	126	333	480	315	190	111	134	802	162
Cfsm	0.359	0.438	0.967	0.412	1.09	1.57	1.03	0.621	0.363	0.438	2.62	0.529
In.	0.41	0.49	1.11	0.48	1.14	1.81	1.15	0.72	0.40	0.50	3.02	0.59

Calendar year 1954: Max 2,660 Min 20 Mean 208 Cfsm 0.680 In. 9.21
Water year 1954-55: Max 8,180 Min 30 Mean 266 Cfsm 0.869 In. 11.82

Peak discharge (base, 3,500 cfs)--Aug. 19 (4 a.m.) 11,000 cfs (19.76 ft).

* Discharge measurement made on this day.

JAMES RIVER BASIN

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 1955.

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.--34 years, 725 cfs.

Extremes.--Maximum discharge during year, 12,100 cfs Aug. 21 (gage height, 26.54 ft); minimum, 45 cfs Oct. 2 (gage height, 4.78 ft).

1900-1905, 1926-55: 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.

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

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 14 to Feb. 10,
Aug. 24 to Sept. 30)

4.8	47	13.0	2,000
5.0	65	19.0	4,150
6.0	171	22.0	6,120
7.0	319	27.0	12,800
9.0	855		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	219	*605	354	268	1,320	405	418	219	128	*142	319
2	50	189	379	319	319	1,180	392	366	195	117	148	330
3	68	195	287	297	330	1,020	366	342	177	111	118	554
4	*137	213	244	297	297	1,130	354	308	171	104	104	861
5	112	213	225	287	238	1,940	342	287	159	96	87	835
6	81	207	231	277	287	3,260	319	277	154	91	80	605
7	63	207	259	268	1,440	3,410	319	252	159	92	77	460
8	54	*195	252	268	2,320	3,370	319	231	225	165	113	528
9	52	163	277	252	2,630	3,450	297	219	287	432	148	432
10	47	171	460	252	1,880	2,420	277	213	277	225	120	308
11	48	159	783	259	861	992	268	207	297	514	137	268
12	52	159	592	268	965	835	308	201	354	1,100	746	244
13	51	154	418	297	992	861	418	219	*541	939	3,600	231
14	50	154	883	287	680	835	731	680	366	528	2,970	213
15	79	154	2,130	268	580	731	1,940	1,270	225	297	2,870	201
16	708	154	2,390	277	*580	705	2,520	783	183	213	2,970	*195
17	1,740	148	2,520	*277	528	731	2,900	501	165	177	3,600	183
18	887	154	1,170	287	488	680	2,940	366	154	148	7,060	177
19	354	165	809	277	446	680	965	287	148	135	7,420	225
20	225	207	757	268	392	731	783	252	159	122	9,640	567
21	195	380	655	259	366	*680	630	225	159	113	11,600	405
22	171	392	514	277	342	783	580	268	142	106	11,300	277
23	148	541	379	342	366	1,380	541	*1,020	142	102	7,060	219
24	137	379	446	460	501	1,350	541	1,300	276	94	1,780	207
25	134	297	460	446	705	887	757	861	460	108	731	207
26	128	259	392	379	731	731	992	554	238	177	580	207
27	126	238	354	354	680	655	913	405	308	148	488	201
28	126	219	354	319	992	592	680	297	259	113	392	189
29	148	259	354	287	-	514	554	244	183	98	342	183
30	189	580	342	268	-----	460	474	244	148	154	330	336
31	224	354	225	225	-----	432	-----	219	-----	148	330	-----
Total	6,635	7,344	20,275	9,252	21,204	38,745	23,825	13,316	6,930	7,095	77,083	10,167
Mean	214	245	654	298	757	1,250	794	430	231	229	2,487	339
Cfs/m	0.294	0.336	0.897	0.409	1.04	1.71	1.09	0.590	0.317	-0.314	3.41	0.465
In.	0.34	0.37	1.03	0.47	1.08	1.97	1.22	0.68	0.35	0.36	3.93	0.52

Calendar year 1954: Max 4,030 Min 36 Mean 508 Cfs/m 0.697 In. 9.47
Water year 1954-55: Max 11,600 Min 47 Mean 653 Cfs/m 0.909 In. 12.32

Peak discharge (base, 4,000 cfs).--Aug. 21 (10 p.m.) 12,100 cfs (26.54 ft).

* 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 1955.

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.--9 years, 134 cfs.

Extremes.--Maximum discharge during year, 3,720 cfs Aug. 19 (gage height, 10.35 ft); minimum, 2.4 cfs July 24; minimum gage height, 0.68 ft Oct. 1.

1946-55: 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, 0.65 ft Sept. 17, 18, 1954.

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.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

(Shifting-control method used Oct. 16 to Dec. 15, Apr. 16 to May 14, July 12 to Aug 11; stage-discharge relation affected by ice Jan. 30)

Oct. 1 to Aug. 11					Aug. 12 to Sept. 30				
0.6	1.0	3.0	148		1.2	27	5.0	436	
.7	3.0	4.0	260		1.6	48	6.0	715	
1.0	14	5.0	402		2.0	73	8.0	1,700	
1.5	38	6.0	615		3.0	156	10.0	3,300	
2.0	69	7.0	900		4.0	271			

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	54	*54	48	58	242	78	68	33	16	*29	35
2	70	41	46	47	66	189	77	61	28	16	18	37
3	94	48	41	46	70	144	75	56	26	14	11	50
4	*69	53	37	45	54	230	72	53	26	14	7.6	60
5	32	49	35	45	58	355	68	51	24	*12	6.0	57
6	19	54	43	45	78	540	67	46	23	11	4.5	49
7	13	49	52	45	322	745	71	42	29	11	3.6	42
8	10	*41	63	42	585	533	68	39	85	12	3.0	43
9	8.8	36	56	41	343	236	61	38	101	23	7.6	46
10	9.2	32	96	42	158	158	59	35	63	36	6.0	38
11	9.6	30	117	46	144	134	59	34	57	89	7.6	36
12	9.2	28	87	53	325	153	34	32	163	78	99	51
13	8.4	28	75	62	378	266	97	39	*105	101	436	45
14	7.6	28	178	57	182	178	216	107	56	52	748	*37
15	12	28	377	56	148	148	708	113	40	28	256	34
16	99	29	370	64	*126	153	785	79	34	18	89	32
17	130	30	173	*68	113	148	340	60	30	13	290	29
18	89	33	117	62	105	134	*184	51	27	10	2,240	28
19	40	38	113	61	91	189	148	45	30	7.6	2,540	41
20	26	46	97	56	84	178	126	41	42	5.7	748	242
21	21	62	77	61	80	*148	105	38	38	5.1	171	265
22	17	57	65	71	77	163	113	42	32	4.8	90	124
23	15	47	73	94	84	230	117	*79	26	3.3	72	70
24	13	47	64	97	94	178	97	70	24	2.6	65	65
25	13	54	65	90	121	139	130	58	22	9.6	56	102
26	12	49	58	83	121	126	139	48	32	7.2	51	92
27	12	58	78	113	126	113	142	40	34	4.8	46	63
28	14	38	58	68	248	101	92	34	31	3.3	42	52
29	22	42	56	60	-	91	81	32	24	10	40	49
30	51	59	56	60	-----	84	73	38	18	11	38	92
31	70	-	52	57	-----	81	-----	40	-----	40	36	-
Total	1,019.1	1,272	2,907	1,850	4,419	6,507	4,501	1,609	1,311	669.0	8,254.9	2,026
Mean	32.9	42.4	93.8	59.7	158	210	150	51.9	43.7	21.8	266	67.5
Cfsm	0.211	0.272	0.601	0.383	1.01	1.35	0.962	0.333	0.280	0.138	1.71	0.433
In.	0.24	0.30	0.69	0.44	1.05	1.68	1.07	0.38	0.31	0.16	1.97	0.48

Calendar year 1954: Max 1,100 Min 2.6 Mean 99.5 Cfsm 0.638 In. 8.66
 Water year 1954-55: Max 2,540 Min 2.6 Mean 99.6 Cfsm 0.638 In. 8.65

Peak discharge (base, 1,200 cfs).--Aug. 19 (1 a.m.) 3,720 cfs (10.35 ft).

* Discharge measurement made on this day.

Appomattox River near Petersburg, Va.

Location.--Lat 37°13'33", long 77°32'20", 2.2 miles upstream from dam of Virginia Electric & Power Co., 4.2 miles downstream from Whipponock 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 1955.

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

Average discharge.--27 years (1927-30, 1931-55), 1,207 cfs.

Extremes.--Maximum discharge during year, 10,300 cfs Aug. 22 (gage height, 11.15 ft); minimum, 63 cfs Oct. 12, 13 (gage height, 1.99 ft).
1927-55: Maximum discharge, 28,000 cfs Aug. 20, 1940 (gage height, 18.15 ft); minimum, 19 cfs Sept. 21-27, 1932.

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

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

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)

1.8	36	3.5	685
2.0	64	4.0	1,100
2.2	104	8.0	5,500
2.5	190	10.0	8,250
3.0	385	12.0	12,100

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	390	722	a450	330	1,880	636	700	367	232	249	a500
2	78	339	643	a420	452	1,880	615	629	339	206	242	a500
3	94	288	479	a400	479	1,580	595	576	296	193	221	a600
4	154	313	400	a400	440	1,680	582	538	272	178	175	a800
5	*206	344	357	a400	357	2,430	556	514	266	166	148	a1,500
6	178	330	353	a380	425	4,080	538	490	235	*154	125	a1,200
7	120	326	357	362	1,290	5,020	538	452	232	142	107	a900
8	90	305	357	344	1,330	5,140	538	430	a300	148	100	a850
9	76	292	420	335	3,310	4,540	520	390	526	232	130	a800
10	64	268	*496	326	3,090	4,080	490	380	520	496	206	a700
11	68	246	794	348	1,530	1,980	474	367	583	367	169	a500
12	63	228	959	353	1,630	1,280	538	353	1,060	963	771	a400
13	64	221	708	376	1,780	1,280	657	362	976	1,380	6,280	a500
14	66	221	752	395	1,380	1,380	1,060	563	*808	1,010	5,630	a350
15	84	215	1,880	395	*976	1,140	3,310	1,330	514	582	4,300	*a320
16	90	215	2,870	395	891	1,060	4,300	1,430	362	385	3,420	309
17	1,200	215	3,090	410	832	1,060	4,190	908	300	284	a4,500	296
18	1,730	221	2,430	425	752	1,060	3,860	857	268	235	a6,000	292
19	760	221	1,070	425	700	1,130	*2,760	532	252	206	a8,000	479
20	410	246	900	405	629	1,160	1,240	462	256	181	a9,000	2,870
21	284	326	816	357	582	1,120	1,010	420	280	160	a9,500	2,210
22	235	526	629	400	556	1,100	950	400	272	145	a10,000	1,330
23	206	643	514	479	556	1,630	942	740	249	136	a9,600	730
24	184	602	484	582	636	1,990	866	1,680	249	145	a6,000	a450
25	169	468	520	643	900	1,530	1,100	1,430	538	163	a2,500	a350
26	163	415	a600	596	1,080	1,140	1,380	959	550	175	a1,500	a300
27	160	385	a540	532	1,060	976	1,480	678	415	228	a800	a300
28	163	348	a500	496	1,430	882	1,150	520	457	206	a600	a300
29	169	326	a500	440	-	784	916	415	385	371	a550	a250
30	212	420	a500	400	-	715	784	410	286	206	a500	a300
31	335	-	a490	326	-	671	-	410	-	246	a500	-
Total	7,945	9,905	26,120	12,995	29,403	57,388	38,576	20,125	12,405	9,921	91,823	21,016
Mean	256	330	843	419	1,050	1,851	1,286	649	414	320	2,962	701
Cfsm	0.192	0.247	0.631	0.314	0.787	1.39	0.963	0.486	0.310	0.240	2.22	0.525
In.	0.22	0.28	0.73	0.36	0.82	1.60	1.07	0.56	0.35	0.28	2.56	0.59
Calendar year 1954: Max			7,500	Min 49		Mean 836		Cfsm 0.626		In. 8.51		
Water year 1954-55: Max			10,000	Min 63		Mean 925		Cfsm 0.693		In. 9.42		

Peak discharge (base, 5,000 cfs).--Mar. 8 (4 a.m.) 5,180 cfs (7.73 ft); Aug. 13 (1:30 p.m.) 6,720 cfs (8.94 ft); Aug. 22 (time unknown) 10,300 cfs (11.15 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 high-water mark and records for stations at Farmville and Mattoax.

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 Schminoe Creek.

Drainage area.--249 sq mi.

Records available.--January 1942 to September 1955.

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

Average discharge.--13 years, 246 cfs.

Extremes.--Maximum discharge during year, 7,710 cfs Aug. 15 (gage height, 11.67 ft); minimum, 6.2 cfs Oct. 1, 2 (gage height, 1.67 ft).
1942-55: Maximum discharge, that of Aug. 15, 1955; minimum, 3.4 cfs Aug. 1, 1954: minimum gage height, 1.56 ft Aug. 25, 26, 1943.

Remarks.--Records good.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 19, Apr. 6 to May 14, July 4-9, 24-27)

Oct. 1-19		Oct. 20 to Aug. 13				Aug. 14 to Sept. 30			
1.6	4.5	1.8	5.5	7.0	568	3.2	67	9.0	1,700
1.8	10	2.0	13	8.0	955	4.0	140	10.0	3,200
2.0	19	2.5	44	9.0	1,700	6.0	393	11.0	5,700
2.5	48	4.0	176	10.0	3,770	7.0	568	11.5	7,200
3.0	86	6.0	395			8.0	955		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.5	23	*36	56	52	176	176	286	72	34	131	242
2	6.5	29	37	54	56	194	154	332	85	22	96	293
3	10	31	37	50	64	203	131	344	70	16	90	439
4	*20	32	35	49	64	216	113	308	62	16	91	393
5	20	37	33	47	74	226	100	242	66	14	66	306
6	17	40	34	45	72	275	91	190	76	*13	34	267
7	13	42	36	43	106	344	86	144	63	12	24	224
8	16	*40	40	42	122	382	82	112	68	12	20	195
9	20	40	43	42	136	425	78	90	47	16	20	173
10	18	37	50	40	144	425	73	72	44	18	25	151
11	13	33	56	42	158	425	69	62	55	45	27	135
12	10	26	62	46	180	455	79	54	100	154	314	118
13	9.4	22	67	50	190	488	84	48	*98	203	2,480	99
14	8.2	19	85	54	*198	488	99	47	106	190	*3,380	*88
15	7.6	18	100	58	212	440	140	52	86	180	6,680	82
16	6.8	16	106	64	203	382	154	56	75	198	*5,560	78
17	9.7	16	111	*67	190	308	167	57	72	221	3,560	73
18	14	16	122	72	185	253	*185	55	66	320	3,160	69
19	18	16	131	73	176	226	198	54	48	568	3,080	101
20	17	16	131	72	167	203	212	50	42	592	*2,610	*356
21	14	18	136	68	154	*185	258	43	46	488	3,300	568
22	11	21	131	67	136	180	297	38	63	332	2,880	725
23	9.5	23	131	70	126	180	297	*38	90	165	2,020	905
24	8.7	26	118	73	122	176	258	38	94	55	1,420	955
25	8.0	27	105	78	131	176	242	38	58	67	1,060	955
26	7.3	29	96	78	131	176	264	38	89	90	792	767
27	7.3	31	84	75	144	180	275	37	122	112	580	592
28	7.3	31	75	70	167	194	275	35	111	*146	440	488
29	8.0	31	68	65	—	216	275	31	65	208	336	363
30	9.5	33	63	60	—	221	270	34	46	180	273	267
31	15	—	58	50	—	208	—	49	—	172	234	—
Total	366.3	819	2,417	1,820	3,860	8,626	5,184	3,074	2,205	4,859	44,783	10,467
Mean	11.8	27.3	78.0	58.7	138	278	173	99.2	73.5	157	1,445	349
Cfs/m	0.047	0.110	0.313	0.236	0.554	1.12	0.695	0.398	0.295	0.630	5.80	1.40
In.	0.05	0.12	0.36	0.27	0.58	1.29	0.78	0.46	0.33	0.73	6.69	1.56

Calendar year 1954: Max 767 Min 4.1 Mean 121 Cfs/m 0.486 In. 6.60
Water year 1954-55: Max 6,680 Min 6.5 Mean 242 Cfs/m 0.972 In. 13.22

Peak discharge (base, 1,000 cfs)--Aug. 15 (2 p.m.), 7,710 cfs (11.67 ft); Aug. 21 (5 p.m.), 3,560 cfs (10.18 ft); Sept. 25 (3 a.m.), 1,000 cfs (8.09 ft).

* Discharge measurement made on this day.

DISMAL SWAMP BASIN

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 1955.

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

Extremes.--Maximum gage height during year, 5.80 ft Sept. 6; minimum, 1.20 ft Nov. 28, Dec. 4, 5.
1926-55: Maximum gage height, 6.09 ft Oct. 7, 1929; minimum, -0.67 ft Nov. 3, 1952.

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

Gage height, in feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.38	1.66	1.24	1.83	2.42	3.59	5.01	5.05	4.80	4.37	3.87	5.57
2	2.35	1.68	1.24	1.84	2.46	3.65	4.99	5.07	4.76	4.31	3.87	5.45
3	2.30	1.75	1.24	1.84	2.50	3.70	5.00	5.06	4.77	4.25	3.84	5.44
4	2.24	1.62	1.20	1.83	2.50	3.78	4.98	5.03	4.73	4.18	3.78	5.62
5	2.18	1.65	1.20	1.79	2.50	3.86	4.98	5.00	4.72	4.12	3.77	5.70
6	2.14	1.64	1.22	1.79	2.51	4.01	5.01	5.01	4.69	4.13	3.75	5.67
7	2.11	1.60	1.30	1.80	2.64	4.09	5.04	4.99	4.66	4.13	3.72	5.71
8	2.05	1.55	1.32	1.77	2.67	4.18	5.02	4.98	4.77	4.10	3.65	5.59
9	2.00	1.52	1.34	1.74	2.72	4.26	5.04	5.00	4.85	4.12	3.63	5.51
10	1.98	1.51	1.37	1.72	2.72	4.34	5.05	4.98	4.79	4.18	3.61	5.49
11	1.95	1.49	1.31	1.86	2.75	4.40	5.06	4.96	4.78	4.19	3.58	5.41
12	1.93	1.46	1.26	1.91	2.80	4.49	5.05	4.99	4.75	4.26	3.84	5.31
13	1.88	1.42	1.23	1.92	2.86	4.61	5.06	4.98	4.70	4.33	3.96	5.11
14	1.86	1.40	1.50	1.94	2.90	4.72	5.08	4.99	4.68	4.35	3.98	5.05
15	1.91	1.38	1.76	1.96	2.95	4.78	5.06	4.96	4.71	4.30	4.04	5.00
16	1.96	1.38	1.60	1.97	2.94	4.89	5.05	4.90	4.69	4.30	4.08	5.01
17	1.94	1.36	1.55	1.99	2.98	4.98	5.00	4.87	4.62	4.30	4.11	5.04
18	1.91	1.34	1.52	2.02	3.06	5.04	4.99	4.86	4.59	4.27	4.17	5.04
19	1.92	1.32	1.58	2.04	3.08	5.00	5.04	4.83	4.62	4.25	4.40	4.97
20	1.95	1.32	1.68	2.07	3.11	4.99	5.01	4.80	4.62	4.20	4.43	5.18
21	1.90	1.39	1.73	2.08	3.14	5.00	5.00	4.78	4.58	4.19	4.45	5.14
22	1.96	1.33	1.70	2.13	3.16	5.01	4.99	4.81	4.58	4.18	4.50	5.27
23	1.95	1.30	1.73	2.14	3.21	5.01	5.01	4.90	4.57	4.13	4.67	5.30
24	1.93	1.32	1.72	2.20	3.23	5.02	5.00	4.84	4.58	4.09	4.80	5.53
25	1.90	1.32	1.73	2.23	3.35	5.02	5.03	4.92	4.52	4.08	4.94	5.58
26	1.78	1.30	1.74	2.25	3.38	5.01	5.02	4.83	4.57	4.06	5.01	5.55
27	1.74	1.22	1.75	2.28	3.42	5.02	5.02	4.89	4.56	4.05	5.15	5.55
28	1.73	1.20	1.75	2.32	3.52	4.99	5.02	4.91	4.47	3.98	5.28	5.38
29	1.78	1.22	1.80	2.34	-	5.01	5.02	4.86	4.47	3.96	5.35	5.23
30	1.74	1.26	1.83	2.35	-----	5.00	5.06	4.83	4.43	3.93	5.43	5.16
31	1.68	-----	1.82	2.38	-----	5.01	-----	4.80	-----	3.92	5.48	-----

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 1955.

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

Extremes.--Maximum discharge during year, 1,170 cfs Sept. 20 (gage height, 6.65 ft); no flow at times.

1953-55: Maximum discharge, that of Sept. 20, 1955; no flow at times.

Remarks.--Records fair.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.1	0	3.5	60
2.2	.2	4.0	130
2.3	.5	5.0	350
2.5	1.6	5.5	500
2.6	2.6	6.0	720
2.7	4.0	6.5	1,050
3.0	24		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	3.2	7.9	54	9.2	4.6	3.0	0	0	60
2			0	3.0	9.2	46	7.9	3.4	1.1	0	0	594
3			0	2.7	8.6	35	7.2	2.7	.4	0	0	371
4			0	2.6	6.6	34	6.0	2.2	.4	0	0	388
5			0	2.5	4.6	42	4.0	1.6	0	0	0	246
6			0	2.4	9.2	75	3.9	1.3	0	0	0	131
7			0	2.3	38	148	4.6	.8	0	0	0	72
8			0	2.2	50	125	5.3	.6	63	0	0	47
9			0	2.1	39	70	4.0	.4	99	16	0	32
10			0	2.0	29	49	3.4	.2	31	9.8	0	18
11			0	4.0	24	39	3.2	0	7.2	2.6	0	16
12			0	16	31	35	6.0	0	3.3	15	1.8	16
13		.1	22	36	35	14	0	0	3.2	35	*65	13
14		*5.4	20	29	32	40	0	0	2.3	12	74	7.9
15		27	18	*24	28	49	0	1.1	1.6	38	3.7	
16			33	14	21	27	43	0	.4	.4	12	2.7
17			24	12	20	30	28	0	.1	0	15	1.9
18			22	*9.2	22	35	18	0	0	0	89	1.6
19			26	7.9	24	58	14	0	.1	0	199	66
20			28	7.9	20	99	10	0	.6	0	89	*950
21			21	6.6	18	89	7.9	0	*1.5	0	40	*520
22			13	10	16	*62	6.0	1.7	2.4	0	18	226
23			8.6	20	15	*48	4.0	71	6.6	0	*92	114
24			7.9	25	18	37	3.9	*56	1.5	0	251	67
25			6.6	26	49	29	10	15	.4	0	114	50
26			4.0	25	59	25	*29	3.6	.3	0	60	38
27			3.9	21	49	21	25	1.9	.1	0	39	28
28			3.6	16	53	18	16	1.0	0	0	22	20
29			3.6	14	-	14	11	.4	0	0	9.4	15
30			3.4	12	-----	12	7.9	.2	0	0	3.2	11
31			3.3	8.6	-----	10	-----	1.5	-----	0	1.8	---
Total	0	0	244.4	340.2	730.1	1,461	401.4	170.1	229.6	92.4	1,232.2	4,126.8
Mean	0	0	7.88	11.0	26.1	47.1	13.4	5.49	7.65	2.98	39.7	138
Cfs/m	0	0	0.343	0.478	1.13	2.05	0.585	0.239	0.333	0.130	1.75	6.00
In.	0	0	0.40	0.55	1.18	2.36	0.65	0.28	0.37	0.15	1.99	6.69

Calendar year 1954: Max 199 Min 0 Mean 14.3 Cfs/m 0.622 In. 8.43
 Water year 1954-55: Max 950 Min 0 Mean 24.7 Cfs/m 1.07 In. 14.62

Peak discharge (base, 200 cfs).--Aug. 19 (6 a.m.) 237 cfs (4.46 ft); Aug. 24 (6 a.m.) 298 cfs (4.80 ft); Sept. 2 (8 a.m.) 672 cfs (5.92 ft); Sept. 20 (12 m.) 1,170 cfs (6.65 ft).

* Discharge measurement made on this day.

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 1955.

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.--9 years, 34.8 cfs.

Extremes.--1953-54: Maximum discharge during water year, 1,810 cfs Mar. 1 (gage height, 14.50 ft); no flow Aug. 29 to Sept. 30.
1954-55: Maximum discharge during water year, 3,320 cfs Aug. 18 (gage height, 19.06 ft); no flow Oct. 1-14.
1946-55: Maximum discharge, that of Aug. 18, 1955; no flow Aug. 29 to Oct. 14, 1954. Maximum stage known, 27.4 ft August 1940, from Corps of Engineers floodmark.
Revisions.--The maximum discharge for the water year 1949 has been revised to 1,510 cfs Nov. 29, 1948 (gage height, 13.4 ft, from graph based on gage readings), superseding figure published in WSP 1142.

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

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1946-49, superseding those published in WSP 1082, 1112, and 1142, are given herewith.

Date	Discharge	Date	Discharge	Date	Discharge
1946		1947-Con.		1948-Con.	
Sept. 24	37	Nov. 11	77	Nov. 29	1,070
25	68	12	545	Dec. 4	593
Nov. 18	164	22	61	30	680
		23	227		
1947		1948		1949	
Jan. 13	173	Feb. 14	1,200	Jan. 6	348
14	354	Mar. 7	336	May 3	270
20	542	17	250	11	484
July 20	69	May 25	74	16	518
21	286	26	189	July 17	188
Sept. 24	393	Oct. 4	53	Aug. 29	258
25	1,880	5	312	Sept. 1	88
Nov. 3	405	Nov. 28	143		
4	228				

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
November 1946.....	559.2	164	9.1	18.6	0.489	0.55
January 1947.....	2,586	542	18	83.4	2.19	2.52
July.....	509.2	286	2.0	16.4	.432	.50
September.....	2,457.7	1,880	.3	81.9	2.16	2.41
Water year 1946-47.....	11,882.1	1,680	.3	32.6	.858	11.63
November 1947.....	2,559	545	16	85.3	2.24	2.50
Calendar year 1947.....	14,767.1	1,880	.3	40.5	1.07	14.45
February 1948.....	3,077	1,200	24	106	2.79	3.01
March.....	2,239	336	22	72.2	1.90	2.19
May.....	877.0	189	6.3	28.3	.745	.86
Water year 1947-48.....	14,888.4	1,200	1.1	40.7	1.07	14.56
October 1948.....	673.8	312	4.0	21.7	.571	.66
November.....	2,295.0	1,070	6.4	76.5	2.01	2.24
December.....	2,572	680	20	83.0	2.18	2.51
Calendar year 1948.....	16,138.7	1,200	1.1	44.1	1.16	15.77
January 1949.....	1,641	348	21	52.9	1.39	1.60
May.....	2,055.4	518	9.6	66.3	1.74	2.01
July.....	648.1	188	2.7	20.9	.550	.63
August.....	676.0	258	2.4	21.8	.574	.66
September.....	518.6	88	7.4	17.3	.455	.51
Water year 1948-49.....	15,362.1	1,070	2.4	42.1	1.11	15.01
Calendar year 1948.....	14,461.5	1,180	2.4	39.6	1.04	14.14

CHOWAN RIVER BASIN

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Nottoway River near Burkeville, Va.--Continued
Discharge, in cubic feet per second, water year October 1953 to September 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	5.1	4.3	8.0	21	847	34	16	9.0	1.3	0.7	
2	1.6	4.5	4.2	8.0	21	184	24	14	7.8	1.2	1.9	
3	1.5	4.1	4.2	8.2	20	122	22	12	7.0	1.1	6.3	
4	1.4	3.9	4.8	8.4	18	98	19	22	6.3	1.4	2.9	
5	1.5	3.8	10	8.0	17	52	21	14	5.6	1.6	1.3	
6	1.5	3.9	9.6	8.2	16	41	21	12	5.2	1.4	1.4	
7	1.6	4.6	*24	7.6	14	36	20	11	4.9	1.2	1.1	
8	1.6	4.9	13	7.0	14	32	19	12	4.8	1.2	.8	
9	1.6	4.8	8.8	7.6	14	29	17	11	4.7	2.2	.7	
10	1.6	4.6	9.2	8.0	13	27	16	12	4.7	2.3	1.4	
11	1.7	4.3	9.6	*17	13	25	16	10	4.5	1.6	.8	
12	*1.8	4.2	14	14	12	23	16	9.6	4.1	1.2	.5	
13	1.7	4.1	45	11	11	23	14	9.2	3.7	0.9	.3	
14	1.6	4.1	370	9.6	12	122	14	19	4.9	.8	.3	
15	1.8	4.2	56	54	*12	60	14	167	4.9	.8	.2	
16	1.8	*4.1	25	524	12	37	606	224	13	.8	.2	
17	1.8	4.0	18	50	14	31	703	58	6.2	.8	.2	
18	1.8	4.0	14	36	13	28	143	89	5.5	.7	.1	
19	1.8	3.9	12	29	12	27	60	110	4.9	*1.3	.1	
20	1.9	4.0	12	26	11	46	39	324	3.9	3.2	.1	
21	2.0	4.9	12	187	225	33	30	405	*3.7	1.7	.2	
22	2.2	6.5	13	370	110	*26	25	73	3.3	1.8	.3	
23	2.4	6.7	12	149	41	24	21	39	3.0	2.0	*.2	
24	2.7	9.0	10	63	30	23	19	*27	2.8	1.3	.1	
25	2.7	6.5	9.2	83	25	22	18	21	2.5	.8	.1	
26	2.7	5.6	9.4	212	22	23	42	17	2.2	.6	.1	
27	2.9	4.8	8.8	152	19	21	*95	14	2.0	.5	.1	
28	3.2	4.6	8.8	56	18	20	30	13	1.6	.5	.1	
29	48	4.3	9.0	36	-	20	20	12	1.4	.3	0	
30	28	4.3	9.0	29	-----	19	18	13	1.4	.3	0	
31	7.4	-----	8.6	24	-----	22	-----	10	-----	.3	0	
Total	135.4	142.1	777.5	2,240.6	780	2,143	2,156	1,799.8	139.5	37.1	22.5	0
Mean	4.37	4.74	25.1	72.3	27.9	69.1	71.9	58.1	4.65	1.20	0.73	0
Cfsm	0.115	0.125	0.661	1.90	0.734	1.82	1.89	1.53	0.122	0.032	0.019	0
In.	0.13	0.14	0.76	2.19	0.76	2.10	2.11	1.76	0.14	0.04	0.02	0

Calendar year 1953: Max 772 Min 0.7 Mean 27.7 Cfsm 0.729 In. 9.90
Water year 1953-54: Max 847 Min 0 Mean 28.4 Cfsm 0.749 In. 10.15

Peak discharge (base, 600 cfs).--Dec. 14 (1 p.m.) 727 cfs (9.94 ft); Jan. 16 (1 p.m.) 900 cfs (10.80 ft); Jan. 22 (8 p.m.) 736 cfs (10.00 ft); Feb. 21 (8 p.m.) 627 cfs (9.40 ft); Mar. 1 (6 p.m.) 1,810 cfs (14.50 ft); Apr. 16 (4 p.m.) 1,170 cfs (12.00 ft); May 21 (1.30 a.m.) 723 cfs (9.92 ft).
* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	3.4	7.0	7.6	11	70	15	15	6.5	1.4	2.8	a20
2	0	2.8	6.0	7.8	12	42	15	14	5.1	1.3	1.5	a40
3	0	5.1	5.2	7.6	11	29	15	12	4.7	1.1	.9	a30
4	0	4.8	4.7	7.2	8.6	107	13	12	4.3	.9	.5	a25
5	0	4.1	4.6	7.4	11	113	12	11	4.1	1.1	.3	a20
6	0	5.2	6.8	7.6	101	394	13	9.4	3.9	2.1	.3	a15
7	0	4.8	8.6	7.6	365	125	14	8.4	9.3	1.9	.2	a13
8	0	6.8	6.7	6.8	52	12	12	7.8	3.2	1.5	.2	a11
9	0	3.2	9.5	6.8	37	11	7.0	18	1.6	1.6	.1	a10
10	0	2.9	65	7.0	27	29	11	6.5	11	32	.4	a9
11	0	2.7	20	9.4	50	26	11	6.3	26	33	.8	a10
12	0	2.7	12	10	104	41	27	7.6	42	14	15	a9
13	0	2.7	*15	9.8	34	32	21	17	12	21	153	a8.5
14	0	2.7	164	9.2	*31	31	858	49	7.8	9.4	47	a8
15	10	*2.6	72	9.6	23	34	577	24	5.8	6.2	222	a7.5
16	71	2.7	27	14	20	50	89	20	5.1	5.1	24	a7
17	4.8	2.9	18	*13	19	35	47	18	4.3	4.2	309	a6.5
18	2.2	3.3	16	11	17	50	36	16	3.7	3.6	*2,300	a20
19	1.4	4.1	16	11	15	57	31	15	4.3	2.9	132	a300
20	1.1	14	13	10	14	43	26	13	*5.1	2.5	36	a70
21	.8	11	10	12	13	*33	22	12	3.8	3.4	22	a35
22	.7	6.5	11	13	13	88	37	11	3.0	2.5	18	a25
23	.6	5.2	10	36	19	54	29	*16	2.5	2.0	24	a20
24	.6	6.2	10	20	21	33	23	12	2.5	1.7	18	a15
25	.6	7.2	8.6	19	32	26	*76	20	2.2	1.6	13	a12
26	.6	5.8	9.2	17	24	24	40	11	10	*1.6	11	a10
27	.8	4.8	8.8	15	79	21	27	8.0	5.1	1.4	11	a9
28	.9	4.6	8.8	13	83	19	23	6.7	2.8	4.2	10	a8
29	3.3	11	10	-----	-----	22	20	6.0	2.1	11	8.8	*a7.5
30	6.5	11	9.0	11	-----	17	17	13	1.8	4.2	8.2	257
31	5.1	-----	7.8	11	-----	16	-----	11	-----	4.0	7.4	-----
Total	111.0	153.8	599.3	359.4	1,266.6	1,746	1,968	415.7	249.8	184.4	3,397.4	1,038.0
Mean	3.58	5.13	19.3	11.6	45.2	56.3	65.6	13.4	8.33	5.95	110	34.6
Cfsm	0.094	0.135	0.508	0.305	1.19	1.48	1.73	0.353	0.219	0.157	2.89	0.911
In.	0.11	0.15	0.59	0.35	1.24	1.71	1.93	0.41	0.24	0.18	3.33	1.02

Calendar year 1954: Max 847 Min 0 Mean 27.9 Cfsm 0.734 In. 9.97
Water year 1954-55: Max 2,300 Min 0 Mean 31.5 Cfsm 0.829 In. 11.26

Peak discharge (base, 600 cfs).--Feb. 7 (4:30 a.m.) 689 cfs (9.74 ft); Mar. 6 (6:30 a.m.) 667 cfs (9.52 ft); Apr. 14 (10:30 p.m.) 2,020 cfs (15.25 ft); Aug. 18 (8 a.m.) 3,320 cfs (19.06 ft); Sept. 19 (time unknown) 821 cfs (10.42 ft). * Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement and records for station near Rawlings and Stony Creek near Dinwiddie.

CHOWAN RIVER BASIN

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 1955.

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

Average discharge.--5 years, 252 cfs.

Extremes.--Maximum discharge during year, 6,420 cfs Aug. 19 (gage height, 12.61 ft); minimum, 0.4 cfs Oct. 14, 15; minimum gage height, 1.83 ft Oct. 15.

1950-55: Maximum discharge, that of Aug. 19, 1955; minimum, that of Oct. 14, 15, 1954.

Remarks.--Records good.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 13 to July 10)

Oct. 1 to Apr. 15

Apr. 16 to Sept. 30

1.7	0.2	2.7	74	2.3	20	3.4	276
1.8	.5	3.0	156	2.4	28	4.0	574
1.9	1.0	3.5	344	2.6	52	8.0	2,940
2.1	7.0	4.0	574	2.8	84	12.2	6,100
2.2	13	6.0	1,690	3.0	132		
2.4	31						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	60	91	80	89	495	163	169	75	34	127	127
2	4.3	49	89	78	107	412	156	153	66	28	75	172
3	4.3	50	80	78	112	320	156	144	58	27	56	590
4	4.9	54	72	74	95	288	150	135	53	24	44	382
5	4.6	54	67	74	78	426	140	129	51	26	35	256
6	4.3	62	89	74	110	925	137	122	48	25	33	189
7	4.0	62	110	74	486	1,510	140	111	47	26	27	153
8	2.8	56	87	69	1,010	898	134	104	114	33	33	141
9	1.9	50	87	67	490	444	124	109	182	171	33	122
10	1.6	47	143	67	304	340	118	109	129	68	27	102
11	1.0	44	208	89	268	292	118	99	122	569	38	102
12	1.0	43	187	124	519	280	180	97	736	817	212	127
13	*.8	43	150	121	529	344	197	106	425	644	1,630	116
14	.4	43	268	110	316	304	316	248	150	290	1,080	99
15	.6	41	*539	98	260	288	1,370	276	93	144	353	88
16	10	41	412	95	*234	304	2,290	189	71	97	410	84
17	140	*44	245	95	208	316	898	141	60	75	709	80
18	78	44	190	95	194	292	391	119	53	62	*3,500	77
19	39	47	180	95	170	344	310	104	70	52	6,100	130
20	23	87	156	101	156	378	260	95	86	46	3,200	1,140
21	18	140	127	89	146	324	220	86	70	41	470	736
22	14	124	93	95	137	304	286	86	58	38	281	305
23	12	101	87	134	140	369	305	153	*47	33	310	208
24	11	93	98	166	153	352	248	156	42	28	396	182
25	11	89	98	173	204	272	310	138	40	50	224	182
26	11	82	84	156	215	245	420	127	106	50	172	193
27	12	72	80	143	226	222	324	111	102	33	141	*162
28	14	69	87	130	399	194	*248	86	68	25	124	141
29	20	78	87	118	-	180	212	75	51	59	114	147
30	47	91	91	112	-----	173	186	73	41	281	109	138
31	69	---	84	93	-----	168	-----	75	-----	244	99	-
Total	568.9	1,960	4,466	3,167	7,355	12,001	10,507	3,925	3,314	4,140	20,142	6,671
Mean	18.4	65.3	144	102	263	387	350	127	110	134	650	222
Cfsm	0.057	0.202	0.446	0.316	0.814	1.20	1.08	0.393	0.341	0.415	2.01	0.687
In.	0.07	0.23	0.51	0.36	0.85	1.38	1.21	0.46	0.58	0.48	2.32	0.77

Calendar year 1954: Max 2,050 Min 0.4 Mean 187 Cfsm 0.579 In. 7.87
Water year 1954-55: Max 6,100 Min 0.4 Mean 214 Cfsm 0.663 In. 9.01

Peak discharge (base, 2,500 cfs).--Apr. 16 (2:30 p.m.) 2,550 cfs (7.37 ft); Aug. 19 (1 p.m.) 6,420 cfs (12.61 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 1955.

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.--25 years, 534 cfs.

Extremes.--Maximum discharge during year, 6,830 cfs Aug. 21 (gage height, 16.73 ft); minimum, 5.6 cfs Oct. 15 (gage height, 1.65 ft).
1930-55: 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 good.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 2 to Mar. 6)

Oct. 1 to June 12

June 13 to Sept. 30

1.6	5.0	3.0	129	2.1	38	10.0	2,190
1.7	6.2	3.5	217	2.5	80	12.0	2,930
1.8	7.5	4.0	330	3.0	153	14.0	4,000
2.0	17	7.0	1,170	4.0	350	17.0	7,180
2.3	41	12.0	2,930	6.0	870		
2.5	62						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.3	26	68	88	113	900	217	253	78	69	305	176
2	6.5	52	73	77	107	870	209	221	69	64	167	219
3	6.8	52	72	72	120	641	208	198	63	58	104	345
4	8.8	42	69	73	128	495	206	180	54	59	75	810
5	7.2	41	61	68	113	641	196	166	50	50	60	520
6	6.7	49	67	68	106	1,650	182	152	45	40	53	386
7	6.6	44	72	69	350	2,630	184	134	45	64	45	294
8	6.1	45	90	69	1,170	2,400	187	117	47	81	50	247
9	5.8	47	96	63	1,230	1,270	175	104	73	98	42	214
10	6.8	46	88	61	600	1,020	159	100	175	316	41	190
11	8.0	42	108	78	418	560	154	104	166	193	48	158
12	7.0	41	176	94	1,080	521	171	95	202	1,540	185	155
13	*6.5	36	194	152	1,080	547	260	91	990	1,440	2,750	181
14	5.8	36	*175	143	696	560	301	123	495	930	3,050	166
15	7.2	30	355	128	*443	482	810	342	219	410	1,650	140
16	9.3	30	724	111	355	482	1,990	330	143	214	600	126
17	8.4	37	495	107	306	521	2,400	215	109	145	970	116
18	9.3	37	292	103	276	495	870	154	93	113	4,270	110
19	103	35	217	107	251	521	521	124	88	93	6,110	237
20	82	38	202	107	211	641	430	108	89	90	6,360	1,650
21	59	43	171	103	193	614	368	97	137	80	6,550	2,220
22	38	80	132	107	178	521	342	88	*116	65	2,080	1,080
23	30	103	88	111	171	521	534	104	88	62	1,350	520
24	25	91	108	173	180	560	469	180	80	57	*1,270	398
25	26	78	101	204	230	469	482	193	75	49	754	338
26	20	72	91	213	342	380	696	157	78	46	446	316
27	15	67	91	191	350	350	682	135	119	59	338	*305
28	16	62	77	171	628	290	*495	117	153	58	274	249
29	22	60	82	152	253	368	91	107	49	49	225	223
30	20	58	86	135	238	299	84	79	42	199	210	
31	28	88	116	116	228	228	83	83	386	183		
Total	613.1	1,520	4,809	3,514	11,435	22,251	14,565	4,640	4,325	7,020	40,604	12,299
Mean	19.8	50.7	155	113	408	718	486	150	144	226	1,310	410
Cfsm	0.034	0.087	0.265	0.193	0.696	1.23	0.829	0.256	0.246	0.386	2.24	0.700
In.	0.04	0.10	0.31	0.22	0.72	1.42	0.92	0.30	0.27	0.44	2.58	0.78

Calendar year 1954: Max 5,440 Min 5.8 Mean 316 Cfsm 0.539 In. 7.33

Water year 1954-55: Max 6,550 Min 5.8 Mean 350 Cfsm 0.597 In. 8.10

Peak discharge (base, 3,500 cfs).--Aug. 21 (8 a.m.) 6,830 cfs (16.73 ft).

* Discharge measurement made on this day.

Stony Creek near Dinwiddie, Va.

Location.--Lat 37°04'00", long 77°36'10", near center of span on 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 Butterwood Creeks.

Drainage area.--111 sq mi.

Records available.--September 1946 to September 1955. Published as "at Dinwiddie" September 1946 to September 1947 and October 1949 to September 1950.

Gage.--Wire-weight gage and crest-stage indicator; gage read once daily. Altitude of gage is 131 ft (by barometer).

Average discharge.--9 years, 95.1 cfs.

Extremes.--Maximum discharge during year, 3,000 cfs Aug. 18 (gage height, 11.52 ft); no flow for part of Oct. 13; minimum daily discharge, 0.1 cfs Oct. 1-14, 16-28, Nov. 1. 1946-55: Maximum discharge, that of Aug. 18, 1955; no flow for part of Oct. 13, 1954; minimum daily discharge, 0.1 cfs Sept. 14 to Oct. 14, Oct. 16-28, Nov. 1, 1954.

Remarks.--Records fair.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 24 to May 8)

Oct. 1 to Nov. 2

Nov. 3 to Sept. 30

0.8	0.1	1.0	0.4	2.2	92
.9	.4	1.1	1.4	3.0	222
		1.2	4.2	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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.1	7.8	11	16	171	48	50	17	12	24	40
2	.1	.2	8.2	10	16	123	45	46	15	11	22	40
3	.1	1.3	7.8	10	16	79	45	42	13	9.5	15	65
4	.1	2.0	7.8	10	16	123	44	38	12	7.4	11	78
5	.1	2.5	7.1	10	16	238	40	37	10	6.0	9.5	65
6	.1	2.2	9.5	11	17	632	38	34	10	5.3	7.8	53
7	.1	3.6	11	10	188	619	38	31	9.1	14	6.4	43
8	.1	3.6	10	10	155	399	39	27	32	11	5.3	70
9	.1	3.6	12	9.1	82	196	38	22	34	22	4.2	45
10	.1	3.4	12	9.1	58	115	36	22	38	20	3.9	33
11	.1	3.1	14	12	43	85	35	22	34	65	4.9	30
12	.1	2.8	15	19	285	205	46	22	163	171	222	28
13	*.1	2.2	16	20	139	171	63	22	238	315	1,430	27
14	.1	2.5	22	21	84	147	107	41	139	188	915	25
15	.2	2.8	*31	17	63	131	413	61	48	66	385	24
16	.1	2.8	38	18	*50	123	385	53	30	34	155	22
17	.1	*2.8	34	21	44	102	205	40	22	22	472	19
18	.1	3.1	29	20	40	84	123	33	17	19	2,390	19
19	.1	2.8	27	*21	33	131	88	24	14	13	1,390	78
20	.1	3.1	28	21	31	123	75	24	16	11	525	659
21	.1	2.2	22	19	30	100	64	22	21	9.5	205	*709
22	.1	3.9	24	18	27	91	86	23	21	8.2	131	315
23	.1	5.6	14	25	28	101	123	27	*17	7.1	214	139
24	.1	8.2	15	31	28	*91	88	30	13	6.4	*100	100
25	.1	7.8	10	31	61	81	86	*39	16	6.0	65	89
26	.1	9.5	18	30	65	72	123	37	14	5.3	53	85
27	.1	8.6	12	25	58	60	100	31	25	4.6	41	92
28	.1	7.9	13	22	222	*91	24	21	*3.9	34	73	73
29	.2	7.8	12	21	-	53	69	22	19	3.6	29	60
30	.3	7.1	12	17	-	49	61	19	14	4.6	27	51
31	.2	-	12	17	-	48	-	18	-	27	25	-
Total	3.6	119.0	511.2	546.2	1,911	4,801	2,832	983	1,092.1	1,108.4	8,922.0	3,165
Mean	0.12	3.97	16.5	17.6	68.2	155	94.4	31.7	36.4	35.8	288	106
Cfsm	0.0011	0.036	0.149	0.159	0.614	1.40	0.850	0.286	0.328	0.323	2.59	0.955
In.	0.001	0.04	0.17	0.18	0.64	1.61	0.95	0.33	0.37	0.37	2.99	1.07

Calendar year 1954: Max 1,160 Min 0.1 Mean 54.8 Cfsm 0.494 In. 6.69

Water year 1954-55: Max 2,390 Min 0.1 Mean 71.2 Cfsm 0.641 In. 8.72

Peak discharge (base, 1,200 cfs).--Aug. 13 (time unknown) 1,680 cfs (9.46 ft); Aug. 18 (time unknown) 3,000 cfs (11.52 ft).

* Discharge measurement made on this day.

Anderson Branch at Sussex, Va.

Location.--Lat 36°55'10", long 77°15'45", on right bank 20 ft downstream from bridge on State Highway 40, 1.0 mile east of Sussex, Sussex County, and 1.5 miles upstream from mouth.

Drainage area.--5.4 sq mi, approximately.

Records available.--October 1948 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 96 ft (by barometer)..

Average discharge.--7 years, 3.60 cfs.

Extremes.--Maximum discharge during year, 188 cfs Aug. 23 (gage height, 5.78 ft); no flow at times.

1948-55: Maximum discharge, that of Aug. 23, 1955; no flow for prolonged periods.

Remarks.--Records poor.

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)

2.6	0	3.5	5.0
2.7	.1	3.8	11
2.9	.3	4.0	17
3.0	.5	4.4	32
3.1	1.0	5.0	96
3.2	1.6	6.0	214
3.3	2.4		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	4.0	1.4	0.8	0.2	0	0	5.0
2					0	4.1	1.3	.5	.1	0	0	3.0
3					0	3.6	1.2	.4	0	0	0	4.0
4					0	5.9	1.0	.3	0	0	0	5.0
5					0	10	.8	.2	0	0	0	3.7
6					.1	27	.8	.2	0	0	0	2.0
7					.8	32	.8	.1	0	0	0	1.5
8					.4	19	.6	.1	0	0	0	2.9
9					.3	12	.5	0	0	0	0	1.6
10					.3	8.4	.4	0	0	.4	0	.6
11					.4	6.8	.4	0	0	1.6	0	.4
12					1.0	20	1.8	0	0	2.4	.4	.3
13					.4	21	1.9	0	0	.5	22	.2
14					.3	15	2.5	0	0	.2	8.6	.2
15					*.4	12	5.2	0	0	0	7.6	.2
16					.3	10	4.0	0	0	0	1.5	.1
17					.3	8.8	2.4	0	0	0	12	.1
18					.3	7.8	1.6	0	0	0	34	0
19					.3	8.4	1.3	0	0	0	15	18
20					.2	8.8	1.0	0	0	0	5.0	67
21					.2	7.8	.8	0	0	0	1.6	22
22					.2	7.2	2.1	0	0	0	.8	10
23					.2	*5.7	1.7	0	0	0	*111	6.8
24					.3	4.4	1.1	0	0	0	*25	5.4
25					.8	3.4	5.0	.1	0	0	11	4.6
26					.4	3.2	5.0	.1	0	0	6.4	3.3
27					1.4	2.4	*3.7	0	0	0	3.4	*2.2
28					2.4	2.0	2.4	0	0	0	1.6	1.6
29					-	1.8	1.7	0	0	0	.9	1.3
30					-----	1.6	1.2	1.0	0	0	.5	.9
31					-----	1.5	-----	1.4	-----	0	.8	-----
Total	0	0	0	0	11.7	285.6	55.6	5.2	0.3	5.1	269.1	173.9
Mean	0	0	0	0	0.42	9.21	1.85	0.17	0.01	0.16	8.68	5.80
Cfsm	0	0	0	0	0.078	1.71	0.343	0.031	0.0019	0.030	1.81	1.07
In.	0	0	0	0	0.08	1.97	0.38	0.04	0.002	0.03	1.86	1.19

Calendar year 1954: Max 77 Min 0 Mean 3.45 Cfsm 0.639 In. 8.70

Water year 1954-55: Max 111 Min 0 Mean 2.21 Cfsm 0.409 In. 5.55

Peak discharge (base, 50 cfs).--Aug. 23 (6 a.m.) 188 cfs (5.78 ft); Sept. 20 (9 to 10 a.m.) 77 cfs (4.83 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 Assamoosick Swamp.

Drainage area.--1,451 sq mi.

Records available.--September 1941 to September 1955.

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.--14 years, 1,167 cfs.

Extremes.--Maximum discharge during year, 10,700 cfs Aug. 24 (gage height, 19.00 ft); minimum, 14 cfs Oct. 13-15 (gage height, 3.10 ft).

1941-55: 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.

Revisions (water years).--WSP 1333: 1944(M).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 19

Apr. 20 to Sept. 30

3.1	14	6.0	604	3.4	60	9.0	1,530
3.2	20	9.0	1,530	4.0	155	13.0	3,150
3.5	57	12.0	2,700	5.0	354	16.0	5,580
4.0	126	14.0	3,790	6.0	604	19.0	10,700

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	29	103	152	246	1,060	591	764	220	157	162	996
2	18	32	99	158	232	1,420	552	682	206	135	354	1,190
3	18	38	103	156	229	1,530	539	604	182	118	280	1,220
4	17	47	110	146	222	1,390	513	513	162	102	193	1,320
5	16	78	110	140	229	1,290	500	450	146	92	143	1,670
6	16	74	120	142	244	1,560	474	402	130	89	113	1,630
7	16	69	118	139	306	2,130	474	366	123	84	94	1,360
8	15	69	112	133	402	2,570	450	332	119	76	84	1,420
9	15	70	116	133	936	2,960	450	290	111	115	76	1,420
10	16	70	133	131	1,420	3,380	438	270	108	191	76	1,120
11	16	71	142	139	1,150	3,650	414	248	178	290	67	906
12	*15	73	137	148	848	3,260	414	236	290	539	139	736
13	15	70	160	166	1,150	2,490	438	228	414	1,360	785	591
14	14	67	248	198	1,530	2,050	539	224	764	1,810	2,050	526
15	20	67	272	251	1,390	1,850	708	228	792	1,630	2,610	487
16	27	*62	270	251	996	1,600	996	332	539	966	3,050	438
17	23	61	526	217	792	1,460	1,740	450	332	565	3,930	390
18	21	56	604	*217	708	1,390	2,170	390	232	414	4,660	343
19	19	56	462	215	643	1,320	2,330	321	184	343	4,500	402
20	18	67	354	217	604	1,320	1,530	270	157	270	4,500	1,250
21	16	66	306	217	565	1,420	906	236	145	197	5,690	2,410
22	83	65	282	215	500	*1,390	764	220	*152	160	8,200	2,870
23	74	69	239	227	462	1,290	708	212	173	128	10,300	3,260
24	62	97	215	246	450	1,190	848	*204	157	107	10,300	3,650
25	49	133	186	272	474	1,150	966	260	138	99	*6,400	3,440
26	41	124	184	330	526	1,060	1,030	310	135	95	6,040	2,530
27	36	115	171	366	682	936	1,190	290	130	*64	4,410	1,740
28	36	112	160	354	820	820	1,250	260	128	76	2,870	*1,250
29	38	112	158	330	-	764	1,090	236	191	89	1,740	936
30	34	109	150	301	-----	682	876	222	184	94	1,120	764
31	28	-----	150	272	-----	617	-----	214	-----	80	820	-----
Total	850	2,228	6,500	6,579	18,756	50,999	25,888	10,264	6,922	10,555	87,776	42,265
Mean	27.4	74.3	210	212	670	1,645	863	331	231	340	2,831	1,409
Cfsm	0.019	0.051	0.145	0.146	0.462	1.13	0.595	0.228	0.159	0.234	1.95	0.971
In.	0.02	0.06	0.17	0.17	0.48	1.30	0.66	0.26	0.18	0.27	2.25	1.08
Calendar year 1954: Max	9,000	Min	14	Mean	808	Cfsm	0.557	In.	7.56			
Water year 1954-55: Max	10,300	Min	14	Mean	739	Cfsm	0.509	In.	6.90			

* Discharge measurement made on this day.

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 southwest of Dendron, Surry County.

Drainage area.--285 sq mi.

Records available.--January 1942 to September 1955.

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

Average discharge.--13 years, 266 cfs.

Extremes.--Maximum discharge during year, 2,310 cfs Aug. 19 (gage height, 6.41 ft); no flow at times.

1942-55: Maximum discharge, 4,710 cfs July 21, 1945 (gage height, 8.90 ft); no flow at times.

Flood of 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 fair.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 8 to Apr. 6)

0.8	0	2.5	51
.9	.3	2.7	71
1.0	1.6	2.9	107
1.1	3.2	3.5	273
1.3	7.3	4.0	500
1.5	12	5.0	1,150
1.9	24	7.0	2,850
2.1	30		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	25	55	221	149	139	12	93	21	206
2			0	24	57	230	139	125	18	65	16	195
3			0	23	57	242	129	117	24	50	12	192
4			0	23	55	287	121	114	22	43	9.5	227
5			0	22	53	316	109	112	16	34	7.3	258
6			0	21	60	424	101	103	9.8	28	8.2	245
7			0	20	93	584	103	91	7.7	30	13	218
8			0	20	129	668	109	75	14	28	16	245
9			0	19	168	820	103	57	10	44	22	273
10			0	18	179	614	95	46	8.6	69	16	294
11			0	23	176	632	84	37	9.5	93	12	332
12			0	26	176	632	93	30	13	107	82	324
13			0	27	168	602	93	27	15	107	434	284
14			0	28	168	548	93	27	36	117	975	224
15			0	30	173	489	101	25	162	157	1,120	162
16			0	34	195	429	103	22	215	179	1,040	121
17			0	38	215	375	103	20	198	170	1,190	93
18			0	39	218	336	101	18	179	160	1,880	73
19			0	41	224	316	99	15	179	149	2,220	125
20			2.7	43	236	284	101	12	157	141	2,220	298
21			14	44	233	267	107	9.3	136	129	2,000	594
22			21	46	212	254	141	9.1	*157	105	1,960	875
23			24	51	192	*239	165	10	109	85	*1,830	1,080
24			26	54	181	224	170	9.5	81	82	1,540	1,010
25			28	57	187	212	198	*12	'82	81	1,220	975
26			26	59	176	204	206	19	162	56	908	1,040
27			25	60	187	198	190	20	154	41	668	940
28			25	60	209	184	179	17	121	*33	489	790
29			24	61	-	173	165	13	141	29	362	644
30			25	59	-	165	152	16	129	31	273	536
31			25	57	-	154	152	14	-	27	221	-
Total	0	0	263.7	1,154	4,432	11,123	1,359.9	2,577.6	2,563	22,785.0	12,864	
Mean	0	0	8.51	37.2	158	359	127	43.9	85.9	82.7	735	429
Cfsm	0	0	0.030	0.131	0.554	1.26	0.446	0.154	0.301	0.290	2.58	1.51
In.	0	0	0.03	0.15	0.58	1.45	0.50	0.18	0.34	0.33	2.97	1.68

Calendar year 1954: Max 1,680 Min 0 Mean 175 Cfsm 0.614 In. 8.30
Water year 1954-55: Max 2,220 Min 0 Mean 172 Cfsm 0.604 In. 8.21

Peak discharge (base, 1,000 cfs).--Aug. 19 (11 p.m.) 2,310 cfs (6.41 ft); Sept. 23 (8 to 11 p.m.) 1,080 cfs (4.92 ft).

* Discharge measurement made on this day.

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 1955.

Gage--Staff gage read once daily. Datum of gage is 8.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge--12 years, 396 cfs.

Extremes--Maximum discharge observed during year, 2,620 cfs Aug. 24 (gage height, 11.40 ft); no flow Oct. 1-31, 1943-55; 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 20 cfs, which are poor.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 6 to June 5, July 15 to Aug. 12)

0.8	0	4.0	81
.9	.1	5.0	137
1.0	.5	6.0	210
1.1	1	6.5	300
1.5	5	7.0	430
2.0	13	8.0	620
3.0	36	12.0	2,980

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.1	0.4	21	81	225	210	210	14	119	25	490
2		.1	.4	23	81	225	198	198	12	107	24	430
3		.1	.4	25	81	225	188	180	11	86	23	490
4		.1	.4	25	81	240	180	161	9.8	81	21	480
5		.1	.4	25	81	260	173	149	9.0	61	19	460
6		.1	.5	25	76	430	167	137	6.9	43	18	430
7		.1	.6	25	96	560	161	119	8.0	38	13	490
8		.1	.7	25	119	685	155	113	12	61	12	490
9		.1	1.0	25	125	820	149	101	13	161	33	430
10		.1	1.4	24	125	920	143	91	12	173	39	375
11		.1	2.0	25	131	920	137	81	9.4	240	66	325
12		.1	3.4	34	143	870	143	71	9.0	460	125	300
13		.1	4.0	34	161	820	149	61	8.6	400	560	300
14		.1	5.0	36	155	820	155	58	7.0	325	775	300
15		.1	*6.4	36	167	775	161	56	6.2	188	1,020	240
16		.1	9.0	36	*167	775	155	56	5.4	155	1,270	198
17		*.1	10	41	167	685	149	47	5.8	137	1,370	180
18		.1	13	*43	173	640	143	41	19	137	1,720	173
19		.1	12	51	167	600	137	32	76	131	1,870	188
20		.2	11	54	173	560	131	28	125	137	2,000	350
21		.3	13	61	180	490	125	26	*137	143	2,320	*685
22		.3	13	66	180	*460	131	23	188	131	*2,500	775
23		.3	12	71	188	400	137	23	210	119	2,500	1,020
24		.3	12	76	188	375	143	*22	188	107	2,620	1,020
25		.3	9.8	76	198	325	180	21	173	96	2,380	1,070
26		.4	9.0	81	198	325	225	18	161	86	2,140	1,270
27		.4	9.0	86	198	280	*240	16	149	*71	1,770	1,170
28		.4	9.8	86	210	260	240	16	155	71	1,370	1,170
29		.5	10	86	-	240	240	15	167	58	1,120	1,170
30		.4	11	86	-----	225	225	14	155	45	820	1,070
31		---	14	81	-----	225	-----	17	-----	30	640	---
Total	0	5.7	204.6	1,489	4,090	15,680	5,070	2,201	2,062.1	4,197	31,383	17,519
Mean	0	0.19	6.60	48.0	146	506	169	71.0	68.7	135	1,012	584
Cfsm	0	0.00042	0.015	0.107	0.326	1.13	0.377	0.158	0.153	0.301	2.26	1.30
In.	0	0.0005	0.02	0.12	0.34	1.30	0.42	0.18	0.17	0.35	2.61	1.45
Calendar year 1954: Max			2,320	Min	0	Mean	282	Cfsm	0.629	In.	8.54	
Water year 1954-55: Max			2,620	Min	0	Mean	230	Cfsm	0.513	In.	6.96	

* 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 Corroawagh Swamp, and 6 miles north of Franklin, Southampton County.

Drainage area.--613 sq mi.

Records available.--August 1944 to September 1955.

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

Average discharge.--11 years, 552 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 3,660 cfs Aug. 24 (gage height, 11.50 ft); minimum daily, 0.7 cfs Oct. 12-14, 19, 20.

1944-55: 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 poor. Diversion above station by city of Norfolk for municipal supply some years.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 10

Mar. 11 to Sept. 30

0.4	0	3.0	140	0.7	4.2	7.0	700
.5	1.0	4.0	240	.9	8.5	8.0	1,160
.7	4.2	5.0	375	1.1	14	9.0	1,760
.9	8.5	6.0	565	2.5	95	11.0	3,260
1.0	11	7.0	835	4.0	230	12.0	4,100
2.0	60	8.0	1,200	6.0	450		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a2.2	a1.3	4.0	26	106	391	285	348	9.4	126	24	820
2	a1.9	a1.4	3.9	30	106	407	270	315	7.4	96	12	860
3	a1.7	a1.5	3.9	32	106	391	255	275	6.2	74	7.4	960
4	a1.5	a1.7	3.9	33	101	391	240	230	6.2	59	4.2	1,160
5	a1.4	a1.9	4.0	34	97	431	221	190	13	49	7.6	1,190
6	a1.2	a2.1	5.6	36	102	604	208	180	12	36	13	1,080
7	a1.1	a2.2	4.8	36	155	865	198	144	12	28	19	935
8	a1.0	a2.4	a4.7	35	205	1,030	185	a120	47	24	19	840
9	a.9	a2.4	a4.5	35	220	1,160	172	a100	23	131	16	760
10	a.8	a2.3	a4.4	36	225	1,200	162	85	11	250	31	655
11	a.8	a2.2	a4.2	40	230	1,190	154	70	20	216	41	565
12	*a.7	a2.1	a4.0	43	235	1,160	162	71	42	250	178	490
13	a.7	a2.0	a3.9	50	240	1,110	185	46	35	354	578	458
14	a.7	a1.9	5.7	54	246	1,060	216	47	20	390	929	414
15	a.8	a1.8	5.4	56	252	985	226	47	6.0	360	1,150	402
16	a.9	*1.8	2.7	60	252	935	226	41	6.7	275	1,580	396
17	a.8	1.6	2.2	61	252	885	212	35	9.8	176	1,560	378
18	a.8	1.8	3.4	*61	252	820	190	25	13	122	1,870	348
19	a.7	2.4	12	63	246	760	176	20	46	100	2,150	378
20	a.7	4.6	26	63	220	720	190	17	87	96	2,350	1,120
21	a.8	7.1	30	63	220	695	176	14	*102	95	2,560	1,700
22	a.9	6.0	29	67	220	*640	176	14	180	87	2,720	1,640
23	a.9	4.2	28	83	230	595	198	22	226	79	*3,220	1,520
24	a1.1	3.7	26	101	240	520	198	*17	235	73	3,590	1,520
25	a1.1	4.2	23	116	264	465	270	17	198	65	3,510	1,520
26	a1.0	3.7	20	126	288	432	384	13	172	52	3,140	1,520
27	a.9	3.2	18	130	307	402	426	7.6	144	40	2,690	1,460
28	a.9	3.7	16	136	351	372	420	15	136	34	2,160	*1,400
29	a1.0	7.1	16	126	342	402	23	140	30	1,730		1,340
30	a1.1	4.4	18	121	-----	320	378	38	144	25	1,360	1,280
31	a1.2	-----	20	110	-----	300	-----	36	-----	28	1,020	-----
Total	32.2	88.7	353.2	2,057	5,968	21,568	7,161	2,622.6	2,109.7	3,820	40,039.2	29,089
Mean	1.04	2.96	11.4	66.4	225	730	271	114	89.4	155	1,303	970
Cfsm	0.0017	0.0048	0.019	0.108	0.367	1.19	0.442	0.186	0.146	0.253	2.13	1.58
In.	0.002	0.005	0.02	0.12	0.38	1.37	0.49	0.21	0.16	0.29	2.46	1.76

Adjusted for pumpage by city of Norfolk

	Observed	Adjusted
Calendar year 1954: Max	2,940	Min 0.7
Water year 1954-55: Max	3,590	Min 0.7
	Mean 399	Mean 401
	Mean 315	Mean 329
	Cfsm 0.654	In. 8.87
	Cfsm 0.537	In. 7.27

* Discharge measurement made on this day.

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

a No gage-height record; discharge estimated on basis of 2 discharge measurements and records for stations at Zuni and near Dendron, and for Nottoway River near Seabell.

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 1955.

Gage.--Water-stage recorder. Concrete control since Sept. 4, 1953. Altitude of gage is 475 ft (by barometer).

Average discharge.--7 years, 9.67 cfs.

Extremes.--1953-54: Maximum discharge during water year, 660 cfs Mar. 1 (gage height, 6.06 ft), from rating curve extended above 220 cfs by logarithmic plotting; minimum, 0.1 cfs Sept. 8 (gage height, 0.44 ft).
1954-55: Maximum discharge during water year, 910 cfs Apr. 14 (gage height, 7.28 ft), from rating curve extended above 220 cfs by logarithmic plotting; minimum, 0.1 cfs Oct. 4 (gage height, 0.44 ft).
1948-55: Maximum discharge, that of Apr. 14, 1955; minimum, that of Sept. 8, Oct. 4, 1954; minimum gage height, 0.10 ft July 17-22, Aug. 31, 1953.

Remarks.--Records fair except those for periods of doubtful gage-height record, which are poor.

Rating tables, Oct. 1, 1953, to Sept. 30, 1955 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 17 to May 7, 1954, Apr. 25, 1955)

Oct. 1, 1953, to Jan. 27, 1954					Jan. 28, 1954, to Sept. 30, 1955				
0.5	0.3	0.9	14		0.4	0	0.9	14	
.6	1.5	1.5	74		.5	.3	1.5	74	
.7	3.9	2.0	106		.6	.9	2.0	106	
.8	7.6				.7	2.8	3.0	174	
					.8	7.0	4.0	300	

Discharge, in cubic feet per second, water year October 1953 to September 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.7	2.9	3.2	4.5	154	9.8	3.3	2.6	0.7	0.3	0.3
2	1.4	1.7	2.9	3.2	4.5	31	5.0	3.6	2.4	.6	.3	.2
3	1.3	1.5	2.9	3.4	4.2	42	4.2	3.6	2.2	.6	.7	.2
4	1.4	1.5	3.4	3.4	3.9	24	3.6	4.2	2.0	.6	.4	.2
5	1.4	1.5	5.4	3.4	3.9	14	9.1	3.3	2.0	.8	.4	.2
6	1.4	2.0	5.0	3.4	3.6	11	6.3	3.3	1.8	1.3	.5	.2
7	1.4	2.7	*7.6	3.4	3.6	9.8	5.0	3.3	1.8	.6	.4	.2
8	1.3	3.2	5.0	3.4	3.6	8.4	4.5	3.9	1.8	.7	.3	.2
9	1.3	2.9	3.9	3.4	3.6	7.7	3.9	3.9	2.0	1.3	.24	.3
10	1.3	2.7	5.8	3.4	3.3	7.0	3.3	3.6	1.8	.8	2.2	.5
11	1.3	2.5	4.3	*7.6	3.3	6.3	3.3	3.3	1.8	.8	.6	.5
12	*1.3	2.5	13	4.6	3.3	7.0	3.3	3.0	1.8	.6	.5	.3
13	1.3	2.5	7.6	3.9	3.0	7.0	3.0	3.3	1.6	.6	.5	.3
14	1.3	2.5	*74	3.9	3.3	44	3.0	8.9	2.4	.5	.5	.3
15	1.3	2.5	6.9	33	*3.3	14	3.0	55	2.4	.6	.5	.3
16	1.4	*2.5	6.1	104	3.3	9.1	142	35	2.4	.6	.3	.3
17	1.4	2.5	5.0	12	5.0	7.0	104	9.8	2.2	.6	.3	.3
18	1.3	2.5	4.6	6.9	3.6	6.3	31	10	2.2	.5	.3	.2
19	1.4	2.5	3.9	6.5	3.3	6.3	16	29	1.8	*7.7	.4	.3
20	1.5	2.5	3.9	6.5	3.3	21	10	63	1.6	.7	.3	.6
21	1.4	3.7	4.3	46	67	9.8	7.7	46	*1.5	1.5	.3	*.5
22	1.4	3.7	4.6	101	17	*6.3	6.3	12	1.3	.7	.4	.2
23	1.4	4.6	3.9	26	7.7	5.6	5.0	7.0	1.3	.7	*.5	.2
24	1.4	3.9	3.7	13	6.3	5.0	5.0	*4.2	1.3	.6	.5	.2
25	1.4	3.7	3.7	33	5.0	5.0	4.5	3.3	1.3	.5	.4	.2
26	1.4	3.4	3.4	58	4.2	6.3	4.5	3.3	1.3	.5	.3	.3
27	1.4	3.2	3.4	31	3.9	4.5	*5.0	3.0	1.8	.4	.3	.2
28	1.7	3.2	3.4	11	4.2	4.2	3.9	2.8	.8	.3	.5	.2
29	7.2	2.9	3.4	7.7	-	4.2	3.3	2.8	.8	.3	.4	.2
30	3.4	2.9	3.4	6.3	-----	4.2	3.3	2.8	.7	.3	.3	.2
31	2.2	-	3.4	5.0	-----	6.3	-----	2.6	-----	.3	.3	-
Total	51.4	81.6	216.7	562.5	188.7	498.3	421.8	346.1	52.7	20.3	37.9	8.3
Mean	1.66	2.72	6.99	18.1	6.74	16.1	14.1	11.2	1.76	0.65	1.22	0.28
Cfsm	0.180	0.296	0.760	1.97	0.733	1.75	1.53	1.22	0.191	0.071	0.135	0.030
In.	0.21	0.33	0.88	2.27	0.76	2.02	1.71	1.41	0.21	0.08	0.15	0.03

Calendar year 1953: Max 191 Min 0.6 Mean 8.09 Cfsm 0.879 In. 11.96
Water year 1953-54: Max 154 Min 0.2 Mean 6.81 Cfsm 0.740 In. 10.06

Peak discharge (base, 300 cfs).--Jan. 16 (2:30 a.m.) 307 cfs (4.03 ft); Mar. 1 (8 a.m.) 660 cfs (6.06 ft); Apr. 16 (8:30 a.m.) 344 cfs (4.30 ft).
* Discharge measurement made on this day.

North Meherrin River near Keysville, Va.--Continued

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.9	2.6	2.6	3.0	18	2.6	3.3	2.0	d1.5	0.8	16
2	.4	1.8	2.4	2.6	3.3	8.4	2.6	2.8	1.8	d1.4	.6	42
3	.5	2.8	2.2	2.4	3.0	5.0	2.6	2.6	1.5	d1.3	.6	38
4	.2	1.8	2.0	2.4	2.8	14	2.6	2.6	1.5	d1.2	.5	14
5	.2	3.0	2.0	2.4	2.8	60	2.6	2.4	1.3	d1.3	.5	7.0
6	.2	2.8	3.3	2.6	68	92	2.4	2.2	1.3	d2.0	.6	4.5
7	.2	2.0	2.8	2.4	61	27	2.4	2.2	35	d2.5	.5	3.9
8	.3	1.8	2.4	2.4	14	10	2.2	2.0	18	d6.0	.4	3.3
9	.3	1.8	12	2.4	6.3	7.0	2.2	2.0	7.0	d11	.6	3.0
10	.2	1.8	8.4	2.6	4.2	4.5	2.0	3.0	3.0	d10	.6	2.8
11	*.2	1.8	3.3	4.5	14	4.5	2.4	2.0	42	d25	1.1	3.0
12	.2	2.0	2.8	4.2	9.8	6.3	5.6	2.4	9.1	41	16	2.6
13	.2	2.0	*18	4.2	3.9	4.2	10	28	3.3	17	28	2.4
14	.2	1.6	84	3.3	*3.6	6.3	241	13	2.4	6.0	41	2.4
15	*.45	*1.6	21	3.3	3.6	8.4	78	5.6	2.2	1.5	27	2.4
16	4.2	1.5	8.4	3.9	3.3	11	22	3.9	2.0	1.1	4.2	2.2
17	1.1	1.6	4.5	*3.3	3.3	6.3	12	3.3	1.6	d1.0	170	2.2
18	.6	2.2	5.0	2.8	3.0	31	9.8	3.0	1.6	d.8	*223	2.0
19	.6	2.8	4.2	3.3	2.8	15	7.0	2.8	2.2	d.8	17	*10
20	.6	9.1	3.6	3.0	2.6	10	5.0	2.6	*2.0	.7	6.3	4.2
21	.6	8.4	3.0	2.8	2.6	*8.4	4.5	2.2	d1.9	d.7	3.9	2.6
22	.6	3.0	2.8	7.7	3.0	48	18	3.3	d1.8	d.6	3.0	2.4
23	.6	2.8	2.8	8.4	6.3	11	6.3	*5.0	d1.7	d.6	7.0	2.4
24	.6	3.6	2.8	5.0	7.0	6.3	7.0	3.3	d1.6	d.7	3.3	2.4
25	.6	3.0	2.6	4.5	9.1	4.5	*33	4.5	d1.7	d1.5	2.8	2.6
26	.6	2.4	2.6	3.9	5.0	4.5	11	2.8	d2.5	*.8	2.8	2.4
27	.6	2.2	2.6	3.6	35	3.6	7.0	2.2	d2.2	.5	2.4	2.2
28	.6	2.4	2.6	3.3	21	3.3	5.0	2.2	d2.0	.6	2.4	3.0
29	4.2	12	2.8	3.0	-	3.0	3.9	2.2	d1.8	.7	2.6	2.4
30	2.2	3.6	2.8	3.0	-----	2.8	3.3	3.9	d1.6	2.0	2.4	22
31	1.5	-----	2.6	2.8	-----	2.8	-----	2.4	-----	1.5	2.2	..
Total	68.3	90.1	224.9	108.6	307.3	447.1	516.0	124.7	159.6	143.4	574.1	212.3
Mean	2.20	3.00	7.25	3.50	11.0	14.4	17.2	4.02	5.32	4.63	18.5	7.08
Cfsm	0.239	0.326	0.786	0.380	1.20	1.57	1.87	0.437	0.578	0.503	2.01	0.770
In.	0.28	0.36	0.91	0.44	1.25	1.81	2.09	0.50	0.64	0.58	2.32	0.86

Calendar year 1954: Max 154 Min 0.2 Mean 6.90 Cfsm 0.750 In. 10.19
 Water year 1954-55: Max 241 Min 0.2 Mean 8.15 Cfsm 0.886 In. 12.26

Peak discharge (base, 300 cfs).--Oct. 15 (6 p.m.) 352 cfs (4.37 ft); Mar. 5 (10:30 p.m.) 392 cfs (4.61 ft); Apr. 14 (1 p.m.) 910 cfs (7.28 ft); Aug. 14 (7:30 p.m.) 300 cfs (3.98 ft); Aug. 18 (3 a.m.) 700 cfs (6.31 ft).

* Discharge measurement made on this day.

d Doubtful gage-height record; discharge estimated on basis of records for station near Lunenburg.

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 1955.

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.--9 years, 48.1 cfs.

Extremes.--Maximum discharge during year, 3,800 cfs Apr. 14 (gage height, 19.70 ft), from rating curve extended above 1,600 cfs by logarithmic plotting; no flow Oct. 8-14, 1946-55; Maximum discharge, that of Apr. 14, 1955; 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.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.6	0	1.8	25
.7	.1	2.2	51
.8	.3	3.0	129
.9	.6	4.0	271
1.0	1.3	6.0	624
1.2	3.8	9.0	1,160
1.5	12	13.0	2,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	3.2	9.4	7.8	11	106	19	22	9.8	3.8	5.6	170
2	.5	3.2	8.0	8.0	12	55	18	20	8.3	3.7	3.5	631
3	.6	6.7	6.9	7.8	11	35	18	18	7.2	3.4	3.2	144
4	.4	4.6	6.7	7.8	11	79	17	17	6.9	3.1	3.0	85
5	.3	5.9	6.4	7.8	10	244	16	16	6.4	3.4	2.7	44
6	.2	7.8	10	7.8	344	642	17	14	5.9	3.4	2.7	31
7	.1	5.6	12	7.5	357	150	18	12	47	9.5	2.4	23
8	0	4.3	8.3	6.9	82	71	15	12	104	10	2.2	18
9	0	3.7	37	7.2	43	50	14	11	53	71	2.4	16
10	0	3.4	74	7.2	30	56	14	11	16	64	3.1	15
11	*0	3.4	20	11	78	33	15	11	106	142	3.1	17
12	0	3.4	15	11	88	67	41	13	62	326	51	15
13	0	3.4	*32	9.8	36	43	28	61	20	54	195	12
14	0	3.4	382	11	*31	46	1,610	68	14	18	399	11
15	242	*3.4	91	9.1	24	53	417	28	11	12	222	11
16	43	3.5	32	14	21	77	106	18	10	9.1	27	11
17	4.6	3.7	19	13	20	50	63	16	9.1	7.2	1,080	9.8
18	2.7	4.3	18	12	18	100	48	14	7.8	5.9	1,820	9.4
19	2.2	6.1	17	11	16	86	40	12	10	4.8	106	30
20	2.1	26	14	11	15	67	33	11	*10	4.3	43	54
21	2.0	22	11	11	14	50	29	10	8.0	3.8	26	16
22	1.8	11	10	15	14	147	72	11	6.7	3.5	20	13
23	1.7	8.3	9.8	47	22	72	40	*22	6.1	5.2	127	13
24	1.7	11	10	21	23	44	34	15	6.4	3.4	27	13
25	1.7	10	6.6	20	42	54	225	25	5.9	5.4	18	15
26	1.8	7.8	8.8	18	28	31	69	15	8.8	3.4	*16	12
27	1.8	6.7	8.6	15	162	25	45	10	7.5	2.8	14	11
28	2.2	6.1	8.6	14	98	22	36	8.8	5.6	2.7	12	12
29	12	25	9.1	16	-	22	29	8.6	4.6	8.0	13	*12
30	7.8	15	8.8	15	20	24	39	11	4.3	19	12	72
31	4.8	8.0	13	13	19	15	15	15	11	10	10	10
Total	338.3	231.9	920.0	393.7	1,661	2,576	3,170	584.4	568.3	824.8	4,271.9	1,546.2
Mean	10.9	7.73	29.7	12.7	59.3	83.1	106	18.9	18.9	26.6	138	51.5
Cfsm	0.162	0.129	0.495	0.212	0.988	1.38	1.77	0.315	0.315	0.443	2.30	0.858
In.	0.21	0.14	0.57	0.24	1.03	1.59	1.98	0.36	0.35	0.51	2.65	0.96

Calendar year 1954: Max 1,110 Min 0 Mean 34.1 Cfsm 0.568 In. 7.70
 Water year 1954-55: Max 1,820 Min 0 Mean 46.8 Cfsm 0.780 In. 10.59

Peak discharge (base, 850 cfs).--Oct. 15 (6:30 p.m.) 1,070 cfs (8.48 ft); Feb. 6 (9:30 p.m.) 1,250 cfs (9.48 ft); Mar. 6 (1:30 a.m.) 1,510 cfs (10.81 ft); Apr. 14 (4:30 p.m.) 3,800 cfs (19.70 ft); July 12 (1:30 p.m.) 1,240 cfs (9.41 ft); Aug. 14 (8:30 p.m.) 1,600 cfs (11.18 ft); Aug. 18 (4:30 a.m.) 3,700 cfs (19.35 ft).

* Discharge measurement or observation of no flow 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 1955.

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.--26 years (1929-55), 492 cfs.

Extremes.--Maximum discharge during year, 10,600 cfs Aug. 20 (gage height, 25.30 ft); minimum, 4.2 cfs Oct. 7, 8 (gage height, 0.92 ft).

1928-55: Maximum discharge, 38,000 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, that of Oct. 7, 8, 1954.

Remarks.--Records good.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 7-16)

Oct. 1-16					Oct. 17 to Sept. 30				
0.8	4.0	1.3	19		1.3	24	7.0	1,200	
.9	5.0	1.5	32		1.7	53	13.0	3,320	
1.0	6.5	1.9	68		2.5	147	20.0	6,000	
1.1	9.0	3.0	225		3.5	322	24.0	9,200	
1.2	13	5.0	669		5.0	669			

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	48	89	92	126	1,610	194	272	135	77	131	182
2	5.9	60	111	92	143	1,140	186	235	117	66	91	352
3	5.6	56	85	90	134	620	184	212	100	59	69	1,220
4	5.3	47	69	91	116	490	178	195	97	48	81	847
5	4.9	60	68	89	97	548	170	181	95	44	56	596
6	4.7	61	82	94	137	1,770	166	166	72	50	51	343
7	4.2	59	101	83	2,050	2,710	168	151	82	84	48	263
8	4.2	53	111	86	2,110	1,090	164	139	150	66	51	226
9	4.3	39	125	85	669	620	155	131	432	203	46	189
10	4.4	53	133	82	409	466	148	129	209	669	38	158
11	*5.3	57	364	111	444	386	147	192	144	744	42	151
12	5.6	51	207	153	1,610	354	172	195	1,230	1,460	85	164
13	6.2	47	157	178	873	409	223	226	596	2,480	597	187
14	6.0	47	498	153	409	364	557	644	235	745	850	142
15	7.5	*42	1,650	134	354	312	3,620	596	150	282	2,300	129
16	645	34	669	128	312	343	4,420	292	124	181	1,390	122
17	533	48	312	*117	272	466	979	202	108	137	804	116
18	111	47	212	116	254	409	572	166	98	108	4,290	111
19	60	49	189	116	224	478	455	146	121	96	7,240	191
20	43	70	174	109	200	669	386	131	*113	83	9,110	*1,030
21	34	91	151	97	186	*572	332	121	109	77	2,610	644
22	29	135	103	131	176	444	343	124	103	72	424	292
23	28	114	117	155	174	669	694	*254	90	66	771	223
24	27	96	139	282	186	512	444	254	88	56	1,380	197
25	27	78	116	244	263	364	984	364	86	45	480	235
26	26	75	97	214	364	312	1,820	512	158	*76	*319	332
27	26	80	112	194	343	282	719	244	282	57	268	195
28	26	69	111	172	1,140	254	478	161	133	51	223	166
29	28	69	104	154	-	226	375	135	98	48	195	158
30	34	84	103	140	-----	214	312	116	88	52	189	147
31	43	-----	102	114	-----	200	-----	112	-----	116	178	---
Total	1,800.3	1,919	6,661	4,096	13,755	19,303	19,745	6,998	5,643	8,398	34,387	9,308
Mean	58.1	64.0	215	132	431	623	658	226	188	271	1,109	310
Cfs/m	0.105	0.116	0.589	0.239	0.888	1.13	1.19	0.409	0.340	0.490	2.01	0.561
In.	0.12	0.13	0.45	0.28	0.92	1.30	1.33	0.47	0.38	0.56	2.32	0.63

Calendar year 1954: Max 4,040 Min 4.2 Mean 281 Cfs/m 0.508 In. 6.89
Water year 1954-55: Max 9,110 Min 4.2 Mean 362 Cfs/m 0.655 In. 8.89

Peak discharge (base, 4,500 cfs).--Apr. 16 (1 p.m.) 4,780 cfs (16.85 ft); Aug. 20 (3 a.m.) 10,600 cfs (25.30 ft).

* Discharge measurement made on this day.

CHOWAN RIVER BASIN

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 1955.

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

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

1951-55: Maximum discharge, that of Aug. 21, 1955; minimum, that of Nov. 11, 1954.

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

Remarks.--Records good. Low and medium flow regulated by powerplant 0.8 mile above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 22 to Sept. 30)

1.0	5	4.0	400
1.1	10	12.0	2,180
1.4	28	14.0	3,080
2.0	66	16.0	4,360
2.4	103	20.0	8,600
3.0	200	22.0	11,400

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	11	90	170	96	1,520	417	460	145	226	110	384
2	11	13	94	17	135	1,680	20	319	109	36	146	654
3	10	11	137	110	253	1,020	234	142	148	38	120	842
4	11	10	26	108	282	772	252	106	29	36	32	776
5	11	11	25	108	19	705	266	248	29	36	132	864
6	16	10	294	110	23	1,170	264	426	220	37	32	626
7	10	9	224	134	805	3,020	222	169	34	140	32	260
8	10	8	25	23	2,860	1,990	352	16	218	221	37	324
9	10	8	26	23	1,240	996	25	109	264	34	202	382
10	10	8	108	180	686	743	29	142	475	287	34	33
11	14	105	281	244	598	732	270	163	32	887	33	34
12	*16	92	400	284	1,220	530	239	163	437	970	513	204
13	16	21	282	19	1,550	85	334	367	1,250	1,990	908	158
14	17	18	308	323	804	683	484	350	549	1,870	1,280	212
15	22	90	1,080	162	424	520	1,880	566	30	655	1,240	203
16	22	94	1,280	18	438	380	5,000	617	254	30	2,420	205
17	418	17	802	*138	488	480	3,410	290	231	103	1,220	35
18	548	17	344	*134	475	690	958	213	30	363	4,850	34
19	16	96	183	135	159	754	674	220	29	31	7,400	609
20	14	101	226	163	117	732	450	380	136	118	11,000	1,220
21	11	19	285	248	305	662	451	29	136	29	10,000	1,260
22	10	96	20	245	366	470	587	29	137	192	1,560	952
23	10	289	137	20	257	*480	310	*132	*138	31	549	510
24	9	171	239	184	280	745	638	348	231	30	1,410	34
25	9	18	19	346	471	723	776	461	31	29	*866	57
26	9	113	17	312	162	308	1,820	484	35	30	563	542
27	9	18	215	226	482	231	1,240	578	414	128	290	280
28	11	96	128	368	784	370	750	246	225	90	72	*223
29	15	132	110	270	-	370	659	27	124	129	190	215
30	11	95	132	21	-----	264	460	28	128	30	164	290
31	10	-	158	111	-----	284	-----	202	-----	30	200	-
Total	1,327	1,799	7,505	4,954	15,779	24,109	23,471	8,030	6,248	8,856	47,605	12,422
Mean	42.8	80.0	242	160	564	778	782	259	208	286	1,536	414
Cfs/m	0.057	0.080	0.323	0.214	0.753	1.04	1.04	0.346	0.278	0.382	2.05	0.553
In.	0.07	0.09	0.37	0.25	0.78	1.20	1.16	0.40	0.31	0.44	2.36	0.62

Calendar year 1954: Max 4,840 Min 8 Mean 407 Cfs/m 0.543 In. 7.38
Water year 1954-55: Max 11,000 Min 8 Mean 444 Cfs/m 0.593 In. 8.05

Peak discharge (base, 6,000 cfs).--Aug. 21 (1 a.m.) 12,600 cfs (22.80 ft).

* Discharge measurement made on this day.

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 1955.

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

Extremes.--Maximum discharge during year, 1,620 cfs Aug. 18 (gage height, 13.71 ft); no flow at times.

1953-55: Maximum discharge, that of Aug. 18, 1955; no flow at times.

Remarks.--Records good.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 12				Feb. 13 to Sept. 30			
2.3	0	3.2	14	2.5	1.4	5.0	104
2.4	.05	3.5	27	2.7	4.2	6.0	181
2.5	.6	4.0	52	2.9	8.5	8.0	398
2.6	1.7	4.5	77	3.3	21	10.0	700
2.8	4.5	5.0	116	4.0	50	13.0	1,420
3.0	8.5	6.0	217				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			2.0	4.9	9.0	132	26	31	18	11	6.2	35
2			2.2	4.7	9.0	118	25	26	12	8.0	6.2	43
3			2.1	4.5	9.2	80	25	23	8.5	7.4	5.2	54
4			2.1	4.5	8.8	70	24	20	7.1	10	3.6	58
5			2.2	4.5	8.1	80	23	17	6.0	6.7	2.8	43
6				4.5	10	213	22	15	5.2	5.4	2.3	34
7			3.0	4.5	7.2	218	25	13	5.4	19	1.9	29
8			4.4	4.4	68	136	19	15	19	15	1.5	24
9			3.9	4.2	51	95	21	12	40	19	1.5	19
10			4.2	4.2	38	64	19	12	43	262	1.4	16
11			5.5	5.3	41	52	19	11	19	202	1.7	17
12			5.1	9.2	138	46	22	11	19	223	33	19
13			*5.1	12	92	45	25	16	16	169	302	16
14			7.3	11	*86	40	78	50	11	70	*269	14
15			12	9.8	54	39	136	45	9.0	43	114	12
16			12	8.5	41	43	83	34	7.6	27	41	11
17			10	*7.5	35	63	56	23	6.4	19	248	9.8
18			8.8	6.5	32	61	41	17	5.4	14	1,360	9.0
19			8.1	6.7	29	89	35	14	7.6	11	685	62
20			7.7	6.9	26	111	31	12	45	9.0	224	*488
21			6.9	6.5	24	*86	27	10	65	7.4	77	324
22			6.1	7.3	23	70	30	10	*26	6.2	41	147
23			5.5	11	21	56	30	*18	14	5.2	34	70
24			5.5	15	22	*46	27	17	25	4.6	46	62
25			5.3	17	35	45	*757	25	37	4.4	46	50
26			4.7	17	37	39	218	23	66	*3.9	31	41
27			4.5	15	46	35	108	21	85	3.4	24	34
28			4.5	13	92	31	65	13	56	3.0	19	30
29			4.7	12	-	29	45	9.5	25	2.8	16	29
30			4.9	10	-----	28	37	9.8	15	3.9	15	26
31			4.9	9.2	-----	27	-----	21	-----	5.0	14	-
Total	0	0	168.8	261.3	1,157.1	2,287	2,103	591.3	724.2	1,200.3	3,673.3	1,825.8
Mean	0	0	5.45	8.43	41.3	73.8	70.1	19.1	24.1	38.7	118	60.9
Cfsm	0	0	0.079	0.123	0.602	1.08	1.02	0.278	0.351	0.564	1.72	0.888
In.	0	0	0.09	0.14	0.63	1.24	1.14	0.32	0.39	0.65	1.98	0.99

Calendar year 1954: Max 1,210 Min 0 Mean 49.6 Cfsm 0.723 In. 9.80
 Water year 1954-55: Max 1,360 Min 0 Mean 38.3 Cfsm 0.558 In. 7.57

Peak discharge (base, 1,000 cfs).--Aug. 18 (9:30 a.m.) 1,620 cfs (13.71 ft).

* Discharge measurement made on this day.

CHOWAN RIVER BASIN

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 1955.

Average discharge.--5 years, 48.7 cfs.

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

Extremes.--Maximum discharge during year, 1,420 cfs Sept. 22 (gage height, 8.77 ft); no flow for many days during several months.

1950-55: Maximum discharge, that of Sept. 22, 1955; no flow at times during each year.

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 20 cfs and those for period of no gage-height record, which are poor.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	*1	4	*23	98	25	10	0	37	*0	*75
2	0	*0	1	4	20	103	23	9.5	0	27	0	104
3	0	0	.9	3.5	17	*98	21	8	0	16	0	379
4	0	0	.8	3.5	13	95	19	7	0	7	0	a700
5	0	.4	.8	3.5	9	95	17	6.5	0	3.5	0	a1,000
6	0	.4	3	3.5	15	126	16	5.5	0	1.5	0	a800
7	0	.3	3.5	3	31	131	15	4.5	*0	.6	0	a550
8	0	.2	2.5	2.5	31	149	15	4	3.2	.3	0	a400
9	0	.1	2	2.5	34	164	11	*3.5	1	.4	0	a300
10	0	.1	3	2.5	39	164	9	2.5	.3	.2	0	245
11	0	.1	2	*7.5	44	141	*7.5	1.5	.2	2.1	0	188
12	0	.1	1.5	10	49	115	7	1	.4	24	68	137
13	0	.1	1.5	8.5	46	92	6.5	1	.6	14	78	a90
14	0	.1	17	8.5	43	75	7.5	1.5	2.8	6.5	108	a70
15	.5	.1	16	8.5	41	59	10	.9	4.5	2.5	140	a50
16	.2	.1	5.5	9	*37	51	9.5	.6	4	1	163	a40
17	0	.1	3.5	9	35	44	10	.3	2.5	.4	274	a32
18	0	.2	5.5	9	33	38	10	.2	2	.1	351	a32
19	0	.2	8	8.5	30	42	11	0	1.5	0	380	215
20	0	.4	8	9	26	51	14	0	5.8	0	332	*668
21	0	.9	8	8.5	23	55	15	0	5.5	*0	341	1,190
22	0	.8	7.5	12	19	65	15	0	3	0	293	1,330
23	0	.7	7	18	18	68	13	.1	1.5	0	214	922
24	0	.7	7	19	22	66	10	**2	2	0	169	555
25	0	.7	7	23	52	65	10	.4	2.2	0	*149	a370
26	0	.7	6.5	25	48	59	*10	.1	17	0	139	a230
27	0	.7	5.5	28	67	49	11	0	9.5	0	131	a160
28	0	.8	5.5	30	89	41	10	0	20	0	131	a120
29	0	1.5	5	30	-	*35	10	0	35	.2	121	a90
30	0	1.5	5	30	-	30	10	0	41	0	107	a70
31	0	-	4	25	-	28	-	0	-	0	92	-
Total	0.7	12.0	155.0	368.5	954	2,490	376.0	68.8	165.5	144.3	3,781	11,112
Mean	0.02	0.400	5.00	11.9	34.1	80.3	12.5	2.22	5.52	4.65	122	370
Cfsm	0.00031	0.0062	0.078	0.185	0.530	1.25	0.194	0.035	0.086	0.072	1.90	5.75
In.	0.0004	0.007	0.09	0.21	0.55	1.44	0.22	0.04	0.10	0.08	2.19	6.43
Calendar year 1954: Max	1,060				Min 0	Mean 52.5	Cfsm 0.816	In. 11.08				
Water year 1954-55: Max	1,330				Min 0	Mean 53.8	Cfsm 0.837	In. 11.36				

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

** Field estimate made on this day.

a No gage-height record; discharge estimated on basis of occasional staff-gage readings and fragmentary gage-height record.

ROANOKE RIVER BASIN

Big Springs at Elliston, Va.

Location.--Lat 37°13', long 80°14', a quarter of a mile upstream from South Fork Roanoke River and 0.3 mile south of Elliston, Montgomery County.

Records available.--June 1928, August 1947, December 1949 to September 1955 (discharge measurements only).

Extremes.--1928, 1947, 1949-55: Maximum discharge measured, 6.51 cfs May 3, 1950; minimum measured, 3.08 cfs Oct. 22, 1952.

Remarks.--Discharge measurements made at bridge where U. S. Highway 11 crosses spring.

Discharge measurements, in cubic feet per second, water year
October 1954 to September 1955

Oct. 29.....	3.62	Apr. 1.....	4.82
Dec. 1.....	3.92	May 4.....	4.30
22.....	4.01	June 2.....	3.85
Feb. 3.....	3.70	28.....	3.69
Mar. 3.....	5.47	Aug. 30.....	3.90

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 1955.

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.--12 years, 256 cfs.

Extremes.--Maximum discharge during year, 6,090 cfs Oct. 15 (gage height, 7.91 ft); minimum daily, 33 cfs Oct. 6-14.

1943-55: 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.

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

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.9	26	2.0	430
1.0	40	3.0	980
1.2	88	5.0	2,340
1.5	192		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	a70	*112	375	a110	1,900	*350	209	a78	78	80	106
2	65	a70	112	300	a140	1,280	320	192	*a83	75	70	88
3	42	a75	106	240	*a170	*832	305	181	103	85	103	115
4	37	a75	100	201	a150	750	276	*209	100	85	65	129
5	34	a80	100	a190	132	1,250	258	205	97	78	62	109
6	33	a85	280	a180	1,040	2,180	253	192	94	83	58	97
7	33	a85	192	a170	1,690	1,690	244	184	106	96	60	88
8	33	a80	a170	a160	832	950	222	181	173	132	85	80
9	33	a75	a200	a150	552	656	209	173	129	132	60	75
10	33	a70	a250	a150	430	510	201	165	118	125	62	75
11	33	a70	a210	a150	380	450	222	162	304	240	60	75
12	33	a70	a180	a140	290	440	370	162	400	480	53	75
13	33	a65	a220	a130	240	375	400	184	262	248	49	72
14	33	65	a260	a120	240	370	1,430	205	169	154	39	70
15	1,950	a65	a320	a120	235	530	1,010	181	147	118	47	67
16	780	a60	a280	a120	214	1,380	678	158	125	a110	42	65
17	262	a60	a250	a120	205	1,310	525	147	a120	a90	318	62
18	169	58	a230	a120	177	1,480	455	140	a110	a80	2,270	62
19	a140	209	a200	a120	162	1,310	395	132	a110	a75	526	62
20	a130	a300	a180	a110	150	1,100	355	125	a100	a70	310	60
21	a100	a250	a160	a110	140	890	335	115	a90	a65	201	58
22	a90	a200	*a140	a120	143	1,380	455	140	a90	a85	a170	55
23	a80	a170	a130	a130	470	1,070	380	154	a150	72	a150	58
24	a70	a150	a120	a130	450	778	395	203	a250	85	a130	62
25	a65	a130	a110	a120	370	673	450	271	a200	91	a110	78
26	a60	a120	a100	a120	320	722	395	158	a140	83	a100	72
27	a60	a110	a100	a120	770	602	345	129	a110	72	a90	62
28	a60	a100	a200	a110	1,190	525	300	109	*a100	67	a80	62
29	*a65	94	440	a110	-	480	266	91	85	80	a75	62
30	a70	100	805	a100	-----	425	235	136	80	72	*a70	60
31	a80	-	495	a100	-----	380	-----	a97	-----	75	140	-
Total	4,770	3,211	6,752	4,636	11,392	28,668	12,034	5,090	4,223	3,461	5,724	2,261
Mean	154	107	218	150	407	925	401	164	141	112	185	75.4
Cfsm	0.599	0.416	0.848	0.584	1.58	3.60	1.56	0.638	0.549	0.436	0.720	0.293
In.	0.69	0.46	0.98	0.67	1.64	4.15	1.74	0.74	0.61	0.50	0.83	0.33
Calendar year 1954: Max	1,950			Min	24		Mean	140	Cfsm	0.545	In.	7.42
Water year 1954-55: Max	2,270			Min	33		Mean	253	Cfsm	0.984	In.	13.34

Peak discharge (base, 4,500 cfs).--Oct. 15 (6 p.m.) 6,090 cfs (7.91 ft).

* Discharge measurement made on this day.

a Doubtful or no gage-height record; discharge estimated on basis of 2 discharge measurements, recorded range in stage, and records for stations at Roanoke and Niagara.

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 360.8.

Drainage area.--388 sq mi.

Records available.--July 1896 to September 1955.

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.--57 years (1896-1905, 1907-55), 392 cfs.

Extremes.--Maximum discharge during year, 5,960 cfs Oct. 15 (gage height, 7.80 ft); minimum, 39 cfs Oct. 1 (gage height, 0.41 ft); minimum daily, 40 cfs Oct. 8.
1896-1955: Maximum discharge, 28,000 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 good except those for periods of no gage-height record, which are fair. Diurnal fluctuation at low flow caused by powerplant above station.

Revisions (water years).--WSP 972: 1928, 1930, 1933, 1935, 1936-39(M).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.4	38	2.0	585
.6	53	3.0	1,300
.8	92	4.0	2,150
1.0	147	5.0	3,070
1.5	323		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	110	181	639	*153	2,690	508	364	172	105	113	178
2	147	108	172	498	172	2,150	470	337	156	97	124	132
3	67	113	166	403	200	*1,260	444	323	147	97	130	191
4	51	113	156	341	204	1,110	413	306	138	127	115	188
5	46	118	172	306	191	1,620	374	*302	132	105	92	166
6	*43	127	346	294	810	2,780	360	281	130	115	102	147
7	42	127	337	268	2,660	2,600	355	266	156	102	97	130
8	40	121	259	244	1,460	1,500	323	259	213	150	110	115
9	41	113	364	227	910	1,040	306	244	181	162	141	105
10	42	110	449	220	697	801	294	237	162	178	105	102
11	42	105	351	227	627	671	351	227	353	326	100	105
12	42	105	285	213	525	658	537	224	537	516	95	108
13	41	102	a350	204	408	633	615	251	364	337	90	97
14	41	100	a500	194	408	603	2,280	274	274	241	83	90
15	2,560	102	a620	181	398	697	1,700	248	230	194	88	88
16	1,900	92	a500	189	369	1,790	1,080	224	204	169	89	83
17	555	108	a450	179	351	1,970	801	207	178	144	190	81
18	341	118	a400	175	315	1,880	690	197	162	132	2,330	81
19	255	244	a350	181	294	2,020	645	188	159	121	801	79
20	197	460	a320	178	262	1,540	597	172	162	110	449	77
21	169	423	*a300	162	230	1,300	525	166	150	105	302	70
22	147	302	259	178	230	2,020	627	224	135	97	262	68
23	130	255	244	191	470	1,740	567	227	216	92	241	70
24	118	227	244	191	652	1,190	561	227	270	121	191	74
25	110	207	213	181	573	1,000	639	389	184	124	169	83
26	102	188	194	178	486	1,040	591	251	153	108	172	95
27	97	169	178	178	794	895	525	210	138	102	135	83
28	95	166	175	172	1,540	766	470	188	*127	88	130	81
29	*118	*197	812	162	-	697	423	178	118	85	124	77
30	119	204	1,540	166	-----	633	369	210	110	95	108	70
31	124	---	822	144	-----	581	-----	*191	-----	92	*159	-----
Total	7,870	5,034	11,709	6,260	16,389	41,855	18,460	7,592	5,811	4,637	7,436	3,114
Mean	254	168	378	234	585	1,350	615	245	194	150	240	104
Cfs/m	0.655	0.433	0.974	0.603	1.51	3.48	1.59	0.631	0.500	0.387	0.619	0.268
In.	0.76	0.48	1.12	0.70	1.57	4.01	1.77	0.73	0.56	0.45	0.71	0.30

Calendar year 1954: Max 3,770 Min 37 Mean 223 Cfs/m 0.575 In. 7.83
Water year 1954-55: Max 2,780 Min 40 Mean 376 Cfs/m 0.969 In. 13.16

Peak discharge (base, 4,000 cfs).--Oct. 15 (10 p.m.) 5,960 cfs (7.80 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement, recorded range in stage, and records for stations at Lafayette and Niagara.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 820.15 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--29 years, 526 cfs.

Extremes.--Maximum discharge during year, 15,000 cfs Oct. 15 (gage height, 13.60 ft); minimum daily, 8 cfs Oct. 9.

1926-55: 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, 7 cfs Aug. 4, 1954; minimum daily, that of Oct. 9, 1954.

Remarks.--Records good except those for periods of no gage-height record, which are poor. 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: 1927-28, 1929(M), 1930, 1933-38, 1940.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.4	8	2.5	360
.6	21	3.0	530
.9	45	4.0	920
1.3	91	5.0	1,470
1.6	139	7.0	3,120
2.0	221	9.0	5,220

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	160	a170	319	a900	a220	a3,700	a700	375	244	a140	a170	a340
2	226	a170	259	a700	a250	*a2,500	a600	520	204	a140	a180	249
3	130	a170	245	a600	a300	1,720	a580	375	226	a140	a180	334
4	146	a170	186	a500	276	1,500	a540	385	199	a140	a170	287
5	115	a170	260	a450	238	2,230	a500	*376	198	a150	a150	341
6	102	a170	503	a400	1,430	3,820	a480	360	a180	a200	a150	266
7	84	a170	473	a350	3,620	3,520	a460	398	a220	a250	a180	a230
8	114	a170	368	a320	1,870	1,990	a440	354	a300	a200	a230	a200
9	8	a150	480	a300	1,190	1,440	a400	346	a250	a250	a300	a230
10	44	a150	595	a300	894	1,140	a450	314	a220	a300	a250	a200
11	118	a140	494	a300	808	1,010	a560	301	a450	a450	a200	a220
12	96	a140	405	a300	689	940	a700	296	a800	a700	a180	a240
13	92	a140	414	a280	493	900	a780	347	a800	a500	a180	a200
14	75	a140	897	a260	515	840	3,210	317	a450	a400	a180	a180
15	5,060	a140	832	a250	484	920	2,400	388	a350	a300	a180	a180
16	2,530	a140	662	281	452	2,150	1,470	278	a300	a250	a230	a170
17	727	a150	530	218	424	2,580	1,110	298	a250	a200	a350	a170
18	332	a170	539	304	371	2,310	900	282	a220	a180	a3,500	a170
19	347	a350	530	266	330	2,580	840	270	a220	a170	a1,000	a170
20	284	a700	474	301	567	1,990	780	252	a220	a150	a600	a170
21	268	a500	410	266	304	1,640	675	245	a200	a140	a400	a160
22	226	a400	400	236	328	2,660	780	362	a180	a130	a350	a160
23	130	a350	365	284	556	2,310	735	386	a300	a130	a300	a160
24	164	a300	354	304	858	1,580	700	334	a400	a160	a250	a170
25	232	a270	256	258	759	1,340	770	497	a300	a180	a250	a180
26	172	a250	271	310	616	1,400	735	358	a210	a150	a230	a200
27	195	a230	323	182	1,160	1,190	560	304	a190	a140	a200	a160
28	*a170	a250	290	204	a2,500	1,060	640	290	*a170	a130	a180	a180
29	a170	a290	1,280	262	-	940	500	276	a160	a120	a170	a170
30	a170	252	2,070	a290	-----	a900	445	287	a150	a130	a150	a160
31	a170	-----	1,160	a250	-----	a800	-----	273	-----	a150	a220	-----
Total	12,857	6,962	16,644	10,426	22,302	55,600	24,440	10,444	8,352	6,770	11,240	6,277
Mean	415	232	537	336	796	1,794	815	337	278	218	363	209
Cfsm	0.812	0.454	1.05	0.658	1.56	3.51	1.59	0.659	0.544	0.427	0.710	0.409
In.	0.94	0.51	1.21	0.76	1.62	4.05	1.77	0.76	0.61	0.49	0.82	0.46

Calendar year 1954: Max 5,200 Min 8 Mean 317 Cfsm 0.620 In. 8.44
Water year 1954-55: Max 5,060 Min 8 Mean 527 Cfsm 1.03 In. 14.00

Peak discharge (base, 7,000 cfs).--Oct. 15 (6:30 p.m.) 15,000 cfs (13.60 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for stations near Toshes and at Roanoke.

ROANOKE RIVER BASIN

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 1955.

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.--30 years, 231 cfs.

Extremes.--Maximum discharge during year, 6,660 cfs Aug. 18 (gage height, 11.30 ft); minimum, 26 cfs Oct. 7 (gage height, 1.52 ft).
1925-55: 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.

Revisions (water years).--WSP 892: 1930(M), 1933(M), 1938-39(M).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 31, Feb. 1)

Oct. 1-15

Oct. 16 to Sept. 30

1.5	22	3.0	560	1.7	67	3.0	655
1.8	78	5.0	1,710	2.0	160	5.0	1,750
2.0	128	7.0	3,130	2.5	386	8.0	3,930
2.5	317						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	78	123	213	140	*502	208	180	164	143	146	150
2	47	89	114	192	126	417	200	*168	150	133	126	150
3	66	123	110	168	120	316	200	164	140	120	107	200
4	49	110	107	160	114	350	188	164	136	117	101	229
5	36	104	104	153	114	355	180	160	129	120	92	192
6	36	104	160	143	372	699	180	153	126	123	92	168
7	31	95	176	136	864	583	180	146	128	150	117	157
8	29	89	146	126	397	412	172	146	264	140	136	146
9	31	87	150	126	278	340	168	143	176	217	297	140
10	33	81	160	126	229	297	164	140	150	208	287	140
11	35	78	143	140	217	278	180	140	1,100	385	153	140
12	36	78	126	143	208	274	391	143	633	1,690	153	140
13	38	78	150	136	153	251	264	180	321	658	143	136
14	36	75	422	133	200	229	1,870	208	246	325	129	129
15	2,510	75	350	126	200	229	1,200	184	217	246	146	126
16	1,200	75	221	126	168	282	578	160	196	204	133	126
17	229	87	184	126	157	325	428	146	180	180	774	126
18	146	107	208	123	150	321	366	143	164	184	3,420	123
19	120	352	225	126	140	412	321	136	164	168	677	120
20	98	545	180	129	136	412	287	129	176	146	386	117
21	84	892	164	126	133	376	264	126	*160	140	287	110
22	78	278	164	136	136	386	256	140	153	133	238	107
23	75	206	176	126	192	412	234	404	153	121	208	110
24	67	172	160	126	213	345	229	278	238	133	200	126
25	67	153	129	123	192	316	264	616	229	157	200	164
26	67	136	126	126	180	306	229	292	184	156	172	146
27	*67	126	126	126	192	278	229	221	146	129	160	129
28	67	123	*117	123	287	251	200	188	136	179	150	123
29	107	153	150	123	-	242	192	168	129	146	*146	120
30	117	*143	287	129	-----	229	184	282	129	123	146	114
31	87	---	264	140	-----	*217	-----	*204	-----	129	150	-
Total	5,722	4,892	5,416	4,255	6,002	10,648	9,990	6,052	6,615	7,163	9,672	4,204
Mean	185	163	175	137	214	343	333	195	260	231	312	140
Cfs/m	0.869	0.784	0.841	0.659	1.03	1.65	1.60	0.937	1.06	1.11	1.50	0.673
In.	1.02	0.87	0.97	0.76	1.07	1.90	1.78	1.08	1.18	1.28	1.73	0.75

Calendar year 1954: Max 2,510 Min 26 Mean 151 Cfs/m 0.726 In. 9.88

Water year 1954-55: Max 3,420 Min 29 Mean 221 Cfs/m 1.06 In. 14.39

Peak discharge (base, 2,000 cfs).--Oct. 15 (5:30 p.m.) 6,480 cfs (11.10 ft); Apr. 14 (12 m.) 2,810 cfs (6.58 ft); June 11 (4 p.m.) 2,260 cfs (5.78 ft); July 12 (12 m.) 2,890 cfs (6.71 ft); Aug. 18 (9:30 a.m.) 6,660 cfs (11.30 ft).

* Discharge measurement made on this day.

ROANOKE RIVER BASIN

81

Roanoke 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 1955.

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.--30 years, 1,014 cfs.

Extremes.--Maximum discharge during year, 28,200 cfs Oct. 15 (gage height, 19.76 ft); minimum, 62 cfs Oct. 11, 12 (gage height, 0.83 ft).
1925-55: 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 good. 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.8	55	4.0	2,330
.9	78	6.0	4,360
1.2	190	9.0	8,400
1.6	399	12.0	13,000
2.0	685		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	363	558	1,530	587	4,360	1,140	730	595	399	351	507
2	177	399	595	1,250	500	4,800	1,060	745	521	387	351	500
3	231	432	521	978	486	2,800	1,020	850	479	351	306	550
4	204	452	479	*932	486	2,600	895	618	458	363	295	812
5	227	439	399	782	465	2,800	910	715	439	334	284	572
6	156	439	535	745	1,190	5,230	858	685	425	381	255	572
7	137	381	828	715	5,360	5,490	850	662	393	640	363	486
8	110	375	662	670	3,400	3,300	828	798	812	425	381	439
9	156	*339	752	602	2,200	2,420	760	738	715	602	700	395
10	94	328	835	580	1,610	1,920	745	715	2,740	940	850	381
11	*69	300	918	625	1,330	1,610	760	*521	2,600	1,900	412	351
12	144	295	858	662	1,250	1,570	1,490	565	2,150	4,020	412	419
13	129	295	738	610	895	1,450	1,410	685	1,250	1,920	445	375
14	129	204	1,930	514	880	1,250	5,980	842	955	985	439	345
15	10,800	279	2,100	565	925	1,250	6,160	730	775	775	439	*351
16	12,200	357	1,570	580	820	1,920	3,000	618	678	610	393	345
17	1,880	312	1,170	542	790	3,200	2,150	565	610	528	2,040	334
18	1,170	351	1,020	479	760	2,700	1,790	550	565	*514	11,400	322
19	722	1,150	1,100	580	685	3,400	1,530	528	521	432	3,200	312
20	812	1,970	970	535	640	3,000	1,370	500	542	432	1,530	312
21	535	4,310	835	521	588	2,510	1,250	472	528	381	982	306
22	387	1,330	685	535	610	2,600	1,210	528	472	351	842	284
23	393	932	715	550	850	3,500	1,290	1,020	458	351	768	295
24	306	805	700	507	1,330	2,510	1,170	1,060	1,020	393	655	339
25	517	632	625	542	1,250	2,060	1,410	1,570	805	439	588	399
26	393	625	465	479	1,100	2,020	1,250	1,020	722	419	565	381
27	334	558	542	558	1,140	1,880	1,140	760	493	419	465	351
28	322	439	618	419	2,330	1,610	1,020	640	432	363	465	328
29	328	610	595	425	-	1,490	1,060	580	399	514	412	317
30	393	750	2,330	472	-----	1,370	888	835	387	339	412	306
31	369	-	2,200	486	-----	1,210	-----	730	-----	334	419	-
Total	33,745	20,631	28,848	19,970	34,257	79,630	46,394	22,575	23,393	21,241	31,399	11,984
Mean	1.089	688	951	644	1,223	2,569	1,546	728	798	685	1,013	299
Cfs/m	1.07	0.675	0.913	0.631	1.20	2.52	1.52	0.714	0.782	0.672	0.993	0.391
In.	1.23	0.75	1.05	0.73	1.25	2.90	1.70	0.82	0.87	0.77	1.14	0.44

Calendar year 1954: Max 12,200 Min 62 Mean 652 Cfs/m 0.639 In. 8.65
Water year 1954-55: Max 12,200 Min 69 Mean 1,026 Cfs/m 1.01 In. 13.65

Peak discharge (base, 7,500 cfs).--Oct. 15 (11 p.m.) 28,200 cfs (19.76 ft); Apr. 15 (2 a.m.) 9,450 cfs (9.68 ft); July 11 (11 p.m.) 8,850 cfs (9.30 ft); Aug. 18 (11 a.m.) 15,400 cfs (13.36 ft).

* Discharge measurement made on this day.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 602.55 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--25 years, 400 cfs.

Extremes.--Maximum discharge during year, 17,500 cfs Oct. 15 (gage height, 23.66 ft); minimum, 49 cfs Oct. 8 (gage height, 2.75 ft).

1930-55: 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 31)

Oct. 1 to Nov. 21

Nov. 22 to Sept. 30

2.8	53	7.0	1,450	3.2	127	9.0	2,520
2.9	65	11.0	3,760	3.5	190	11.0	3,760
3.5	170	15.0	6,900	4.0	329	15.0	6,900
5.0	582	18.0	10,100	6.0	1,010	17.0	9,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	188	270	299	210	1,350	279	273	226	172	192	200
2	77	215	259	279	208	800	273	264	188	172	168	215
3	139	267	242	256	202	523	276	264	179	164	145	311
4	106	262	226	*239	186	489	264	267	177	158	135	323
5	76	239	220	239	172	852	256	256	177	164	129	264
6	65	239	284	228	871	2,460	270	237	179	158	139	234
7	63	215	323	220	2,520	975	276	234	241	344	208	220
8	57	204	245	210	782	608	264	237	748	195	574	205
9	59	*194	259	205	506	489	242	239	320	212	506	192
10	63	181	290	208	396	412	250	223	237	466	390	190
11	*71	181	256	226	365	390	270	*220	2,000	1,410	231	190
12	70	177	234	245	378	416	455	223	1,020	1,550	234	186
13	71	170	353	231	276	374	472	296	409	591	223	183
14	70	162	1,130	215	308	344	2,500	384	311	344	554	177
15	6,130	162	888	205	308	362	2,520	299	*267	259	416	*177
16	9,070	183	489	212	273	409	905	262	248	223	242	170
17	562	183	365	202	270	403	591	239	228	195	2,650	164
18	344	234	455	200	256	400	489	228	210	*183	8,250	162
19	304	330	506	215	237	458	472	218	212	172	1,010	166
20	256	948	387	218	228	472	384	218	223	164	557	162
21	222	1,600	323	192	223	*455	353	195	212	158	409	153
22	204	608	276	218	231	591	350	228	200	151	332	147
23	194	400	282	228	329	557	335	344	208	168	323	158
24	181	358	279	223	362	458	341	422	302	183	282	172
25	177	293	248	210	350	378	506	625	308	190	253	192
26	172	262	228	202	320	384	387	365	305	164	242	208
27	166	248	226	202	344	344	341	250	223	151	231	181
28	168	231	228	205	523	320	329	234	190	164	218	172
29	246	403	262	192	-	308	320	212	183	212	215	160
30	259	341	416	195	-----	299	284	264	179	170	210	158
31	201	---	378	200	-----	290	-----	251	-----	166	202	---
Total	19,906	9,658	10,827	6,819	11,634	17,330	15,254	8,451	10,110	9,173	19,868	5,792
Mean	642	322	349	220	416	559	508	273	337	296	641	193
Cfsm	1.63	0.817	0.886	0.558	1.06	1.42	1.29	0.693	0.855	0.751	1.63	0.490
In.	1.88	0.91	1.02	0.64	1.10	1.64	1.44	0.80	0.95	0.87	1.88	0.55

Calendar year 1954: Max 9,070 Min 51 Mean 314 Cfsm 0.797 In. 10.82
Water year 1954-55: Max 9,070 Min 57 Mean 397 Cfsm 1.01 In. 13.68

Peak discharge (base, 4,000 cfs).--Oct. 15 (11 p.m.) 17,500 cfs (23.66 ft); Apr. 14 (5 p.m.) 4,110 cfs (11.51 ft); Aug. 18 (2 a.m.) 10,700 cfs (18.50 ft).

* Discharge measurement made on this day.

Goose Creek near Huddleston, Va.

Location.--Lat 37°10', long 70°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 1955.

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.--25 years (1930-55), 183 cfs.

Extremes.--Maximum discharge during year, 16,000 cfs Oct. 15 (gage height, 23.14 ft); minimum, 18 cfs Oct. 7 (gage height, 1.05 ft).

1930-55: 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.

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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting control method used Oct. 16-29)

Oct. 1 to Nov. 21,
Apr. 15 to Sept. 30

Nov. 22 to Apr. 14

1.0	13	3.0	500	1.4	72
1.1	22	5.0	1,180	1.6	124
1.3	45	9.0	3,050	2.0	264
1.5	79	13.0	5,300	3.0	700
				6.0	1,940

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	77	151	244	*121	*902	164	139	66	79	79	91
2	28	103	145	210	113	588	157	131	61	77	60	91
3	30	133	136	178	104	323	154	128	66	73	54	142
4	28	98	130	164	89	482	151	128	64	71	52	152
5	25	103	130	154	91	678	145	126	64	75	50	118
6	24	98	221	148	632	1,140	142	*120	61	73	79	103
7	21	84	174	139	970	745	142	116	69	73	108	91
8	22	79	154	130	355	356	136	113	119	79	116	89
9	25	77	171	127	241	268	136	110	113	113	204	81
10	29	70	214	124	199	233	136	108	68	238	139	81
11	30	66	181	136	185	218	142	108	564	289	103	81
12	28	62	161	133	164	218	416	108	241	227	120	84
13	25	60	168	124	130	199	252	139	168	136	158	77
14	27	60	722	118	154	188	1,650	150	126	110	120	77
15	5,120	60	430	118	154	195	863	123	118	96	139	77
16	1,820	58	264	124	142	268	411	110	108	86	91	75
17	344	66	210	116	139	248	280	108	101	79	790	73
18	210	168	229	113	133	248	238	106	63	75	1,480	70
19	166	620	218	116	124	248	216	101	66	73	315	68
20	133	1,020	188	116	121	244	196	96	103	70	182	70
21	123	2,550	*161	110	118	229	182	93	61	68	142	64
22	113	858	148	124	121	260	182	126	*66	64	123	61
23	98	469	154	124	298	268	168	168	131	64	144	66
24	86	356	145	118	237	188	131	171	70	118	77	77
25	75	293	133	113	203	218	216	144	106	131	103	89
26	68	244	127	110	174	225	174	118	133	96	96	79
27	68	218	124	113	260	203	160	103	103	79	91	70
28	68	195	124	99	487	188	155	96	61	68	89	70
29	139	*208	264	102	-	181	144	101	84	86	*69	70
30	123	168	678	116	-	*174	142	199	81	70	86	68
31	96	-	344	82	-	168	-	*110	-	66	96	-
Total	9,218	8,719	6,799	4,043	6,269	10,340	7,858	3,777	3,776	3,054	5,616	2,508
Mean	297	291	219	130	224	334	261	122	126	98.5	181	83.6
Cfsm	1.59	1.56	1.17	0.695	1.20	1.79	1.40	0.652	0.674	0.527	0.968	0.447
In.	1.83	1.74	1.35	0.80	1.25	2.06	1.56	0.75	0.75	0.61	1.12	0.50

Calendar year 1954: Max 5,120 Min 21 Mean 144 Cfsm 0.770 In. 10.42
Water year 1954-55: Max 5,120 Min 21 Mean 197 Cfsm 1.05 In. 14.32

Peak discharge (base, 3,000 cfs).--Oct. 15 (6 p.m.) 16,000 cfs (23.14 ft); Nov. 21 (4 a.m.) 4,940 cfs (12.44 ft); Apr. 14 (9 a.m.) 3,020 cfs (8.80 ft); Aug. 17 (12 p.m.) 3,150 cfs (9.18 ft).

* Discharge measurement made on this day.

Roanoke River at Altavista, Va.

Location.--Lat 37°06'16" (revised), long 79°17'44" (revised), 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, 3½ miles upstream from Otter River, and at mile 286.5.

Drainage area.--1,802 sq mi.

Records available.--August 1930 to September 1955.

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 on left bank 50 ft downstream at same datum.

Average discharge.--25 years, 1,948 cfs.

Extremes.--Maximum discharge during year, 52,000 cfs Oct. 16 (gage height, 31.23 ft); minimum, 191 cfs Oct. 12 (gage height, 2.17 ft).

1930-55: 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 except those for periods of doubtful or no gage-height record, which are fair. Diurnal fluctuation at low flow caused by powerplant at Niagara, 69 miles above station. Records of water temperatures and sediment loads for the water year 1955 are given in WSP 1400.

Revisions (water years).--WSP 892: 1938(M). WSP 972: 1931-33.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19

Aug. 20 to Sept. 30

2.1	170	13.0	9,600
2.5	300	17.0	15,500
3.0	530	23.0	27,900
4.0	1,090	29.0	44,000
9.0	5,400		

3.0	445
5.0	1,740
8.0	4,230

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	236	778	1,230	2,880	850	7,000	a2,000	1,720	1,440	880	850	1,040
2	239	910	1,260	2,340	970	7,840	a1,900	1,600	1,120	880	850	1,110
3	356	1,030	1,160	*1,960	970	5,220	a1,800	1,520	1,000	850	754	1,360
4	500	1,030	1,060	1,680	940	4,680	a1,700	1,480	970	778	685	1,670
5	376	940	820	1,480	910	4,860	a1,600	1,370	940	850	675	1,500
6	336	940	1,200	1,440	1,730	10,800	a1,600	1,370	910	778	630	1,220
7	264	820	1,840	1,340	10,300	9,160	a1,600	1,300	910	1,300	790	1,110
8	239	790	1,560	1,260	6,900	6,300	a1,500	1,260	1,920	1,090	1,370	1,000
9	221	910	1,340	1,200	4,300	4,590	a1,400	1,300	1,920	970	1,560	900
10	268	*784	1,560	1,120	3,240	3,780	a1,400	1,160	1,340	1,990	2,250	830
11	*215	730	1,720	1,160	2,700	3,240	a1,500	1,160	4,800	2,790	1,340	830
12	194	715	1,400	1,260	2,520	3,150	a2,000	1,160	7,100	9,160	1,120	830
13	289	710	1,400	1,200	1,920	2,880	3,150	1,340	3,150	4,680	1,200	830
14	260	650	4,050	1,090	1,400	2,610	8,410	1,880	2,160	2,340	1,260	736
15	9,270	610	4,660	1,060	1,800	2,520	14,100	1,640	*a1,700	1,720	2,080	*712
16	*41,300	760	3,150	1,030	1,680	3,060	7,840	1,400	a1,600	1,400	1,200	694
17	5,220	736	2,340	1,030	1,560	4,770	a4,500	1,260	a1,400	1,230	3,520	670
18	2,430	880	2,160	1,000	1,480	4,590	a3,500	1,200	a1,300	1,090	27,900	640
19	1,560	1,400	2,430	1,030	1,370	4,950	a3,000	1,120	a1,200	1,030	10,400	628
20	1,440	5,130	2,080	1,060	1,260	5,040	a2,500	1,090	a1,200	970	3,510	610
21	1,090	12,900	1,840	1,000	1,200	*4,410	a2,200	1,030	1,160	880	2,460	580
22	1,000	4,950	1,440	1,000	1,260	4,230	a2,100	1,090	1,090	850	*1,980	555
23	860	2,790	1,370	1,090	1,680	5,600	a2,000	1,760	1,030	778	1,700	555
24	778	2,000	1,400	1,090	2,430	4,500	a2,100	2,160	1,600	910	1,670	592
25	725	1,720	1,300	1,030	2,520	3,780	2,880	3,510	1,760	1,000	1,460	712
26	880	1,340	1,000	1,000	2,250	3,420	2,700	2,610	1,720	1,000	1,320	795
27	710	1,400	1,000	1,000	2,160	3,420	a2,500	1,720	1,260	910	1,220	700
28	720	1,060	1,200	940	3,510	2,970	2,080	1,370	1,030	820	1,110	640
29	820	1,400	1,200	910	-	2,700	1,960	1,230	940	1,090	1,080	616
30	1,090	1,720	3,530	910	-----	2,520	1,840	1,340	880	910	970	586
31	820	-	4,050	850	-----	2,250	-----	1,680	-----	790	970	-
Total	74,725	51,533	57,840	38,440	65,830	140,840	89,160	46,830	50,550	46,714	79,884	25,261
Mean	2,410	1,718	1,866	1,240	2,351	4,543	2,972	1,511	1,685	1,507	2,577	842
Cfsm	1.34	0.953	1.04	0.688	1.30	2.52	1.65	0.839	0.935	0.836	1.43	0.467
In.	1.54	1.06	1.20	0.79	1.35	2.90	1.84	0.97	1.04	0.96	1.65	0.52

Calendar year 1954 : Max 41,300 Min 170 Mean 1,458 Cfsm 0.809 In. 10.98
 Water year 1954-55 : Max 41,300 Min 194 Mean 2,103 Cfsm 1.17 In. 15.82

Peak discharge (base, 18,000 cfs).--Oct. 16 (8 a.m.) 52,000 cfs (31.23 ft); Aug. 18 (6:30 p.m.) 30,800 cfs (24.26 ft).

* Discharge measurement made on this day.

a Doubtful or no gage height record; discharge estimated on basis of 1 discharge measurement and records for stations near Toshes and at Brookneal.

Otter River near Bedford, Va.

Location.--Lat 37°22', long 79°25', 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 1955.

Gage.--Water-stage recorder. Datum of gage is 647.16 ft above mean sea level, datum of 1929.

Average discharge.--12 years, 140 cfs.

Extremes.--Maximum discharge during year, 8,000 cfs Oct. 15 (gage height, 11.96 ft); minimum, 6.4 cfs Oct. 13, 14 (gage height, 0.98 ft).

1943-55: 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, 5.6 Sept. 8, 1944 (gage height, 0.89 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.

Revisions (water years).--WSP 1142: 1940(M), 1944(M), 1948(M).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 17 to May 30, Sept. 29, 30)

0.9	4.8	2.3	150
1.0	7.5	3.0	375
1.1	11	4.0	880
1.2	16	5.0	1,590
1.5	39	7.0	3,630
1.9	87		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	51	116	296	*84	554	172	158	93	56	54	54
2	18	64	112	247	87	403	168	*145	84	52	35	57
3	17	69	108	214	81	328	162	144	77	48	29	116
4	17	59	105	190	72	375	150	132	76	45	25	87
5	16	63	105	172	76	668	148	132	74	46	24	73
6	15	58	160	162	509	820	148	122	72	43	25	66
7	10	54	121	146	556	815	144	120	115	42	29	57
8	8.6	52	112	138	300	447	136	118	238	46	37	49
9	8.6	45	196	134	235	363	130	112	218	53	65	48
10	7.5	42	184	130	199	318	130	111	111	52	49	49
11	7.0	40	145	136	202	296	146	107	1,100	73	35	47
12	7.0	39	128	127	165	314	553	107	253	87	39	47
13	6.7	39	142	126	181	279	296	134	146	81	61	45
14	6.7	39	391	120	148	259	1,310	130	120	53	49	43
15	2,620	38	235	120	138	268	850	120	105	47	66	43
16	356	38	181	121	130	318	520	108	98	43	49	42
17	112	42	155	116	127	293	443	105	87	40	232	37
18	81	90	196	114	120	307	371	101	79	35	1,140	36
19	65	720	172	115	120	304	328	98	77	33	321	35
20	57	732	150	111	126	290	279	94	80	32	272	32
21	57	1,840	134	105	122	279	276	87	73	31	134	29
22	54	431	130	105	128	367	256	139	*66	29	114	34
23	52	265	126	107	357	355	235	165	65	27	114	37
24	49	211	121	102	241	310	290	127	90	30	81	41
25	47	165	115	98	202	293	268	124	64	33	77	45
26	46	136	111	91	181	307	232	107	108	34	76	42
27	*46	121	111	90	358	265	214	98	68	29	65	39
28	45	120	109	80	371	244	199	91	61	46	80	39
29	79	*158	449	94	--	229	181	273	58	46	*54	37
30	60	122	540	97	-----	*202	168	214	56	34	52	44
31	53	---	363	86	-----	181	-----	*105	-----	35	59	-----
Total	4,041.1	5,943	5,524	4,090	5,616	10,831	8,903	3,929	4,002	1,361	3,532	1,450
Mean	130	198	178	132	201	349	297	127	133	43.9	114	48.3
Cfsm	1.12	1.71	1.53	1.14	1.73	3.01	2.56	1.09	1.15	0.378	0.983	0.416
In.	1.29	1.91	1.76	1.31	1.80	3.47	2.86	1.26	1.28	0.44	1.13	0.46

Calendar year 1954: Max 2,620 Min 6.7 Mean 102 Cfsm 0.879 In. 11.96
Water year 1954-55: Max 2,620 Min 6.7 Mean 162 Cfsm 1.40 In. 18.97

Peak discharge (base, 1,500 cfs).--Oct. 15 (4:30 p.m.) 8,000 cfs (11.96 ft); Nov. 21 (3 a.m.) 4,150 cfs (7.52 ft); Apr. 14 (9 a.m.) 2,700 cfs (6.13 ft); June 11 (7 a.m.) 2,700 cfs (6.14 ft); Aug. 18 (3 a.m.) 2,580 cfs (6.06 ft).

* Discharge measurement made on this day.

Otter River near Evington, Va.

Location.--Lat 37°13', long 79°18', 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 1955.

Gage.--Water-stage recorder. Datum of gage is 544.02 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--18 years (1937-55), 365 cfs.

Extremes.--Maximum discharge during year, 13,400 cfs Oct. 15 (gage height, 19.42 ft); minimum, 34 cfs Oct. 8 (gage height, 1.08 ft).
1936-55: 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, 34 cfs Sept. 13, 17, 18, Oct. 8, 1954.

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 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)

1.0	27	5.0	920
1.5	60	7.0	1,640
2.0	164	11.0	3,420
2.5	247	15.0	6,090
3.0	360		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	169	323	598	220	1,430	360	301	247	142	130	152
2	47	202	311	574	220	1,010	348	278	a220	132	113	156
3	47	276	278	*430	212	724	335	267	a210	126	92	398
4	47	220	267	368	190	1,110	323	267	a200	120	82	276
5	45	220	257	360	182	1,260	311	257	a190	119	80	210
6	44	212	458	335	930	2,110	311	238	a180	118	80	188
7	40	196	348	311	2,030	1,480	311	229	a300	140	174	169
8	35	185	301	289	808	920	289	229	a700	156	136	149
9	39	177	402	278	598	752	278	220	a600	149	698	136
10	42	*164	584	267	486	626	278	212	a350	444	257	136
11	*40	156	416	289	444	570	289	212	a3,500	639	162	136
12	39	156	360	289	402	598	1,040	220	a700	448	170	134
13	39	155	374	267	278	570	626	289	a450	212	229	128
14	40	154	1,040	247	323	500	2,580	335	a350	178	260	125
15	4,140	154	724	247	335	500	1,780	257	*301	156	374	*125
16	4,570	154	528	267	301	668	1,010	229	247	138	207	124
17	472	161	430	257	289	626	752	220	220	126	1,540	119
18	278	226	514	247	267	612	668	212	204	118	3,920	119
19	220	1,140	514	257	247	626	584	202	193	*107	638	119
20	188	2,020	416	257	257	584	528	194	202	101	542	116
21	174	5,510	348	229	257	*556	458	186	183	96	323	106
22	167	1,180	301	247	257	668	486	220	170	95	*257	108
23	161	724	311	267	808	640	416	360	169	90	267	112
24	160	570	301	247	668	556	430	289	257	94	220	125
25	158	500	278	234	528	542	556	247	180	107	188	142
26	156	388	257	229	444	584	444	220	247	100	174	128
27	180	335	257	220	771	486	388	196	190	98	161	119
28	158	311	257	196	948	444	360	186	164	190	154	122
29	258	466	612	193	-	416	335	180	154	258	148	119
30	229	374	1,110	212	-	368	311	1,020	146	130	144	120
31	186	-	752	164	-	374	-	348	-	113	152	-
Total	12,406	16,877	13,629	8,836	13,700	22,930	17,145	8,320	11,424	5,238	12,271	4,406
Mean	400	563	440	285	489	740	572	268	381	169	396	147
Cfsm	1.23	1.73	1.35	0.877	1.50	2.28	1.76	0.825	1.17	0.520	1.22	0.452
In.	1.42	1.93	1.56	1.01	1.56	2.63	1.96	0.95	1.30	0.60	1.41	0.50

Calendar year 1954: Max 5,510 Min 34 Mean 287 Cfsm 0.883 In. 12.01
Water year 1954-55: Max 5,510 Min 35 Mean 403 Cfsm 1.24 In. 16.83

Peak discharge (base, 4,000 cfs).--Oct. 15 (11 p.m.) 13,400 cfs (19.42 ft); Nov. 21 (9 a.m.) 7,940 cfs (16.78 ft); June 11 (time unknown) 4,470 cfs (12.88 ft); Aug. 18 (5 a.m.) 6,090 cfs (15.04 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for station near Bedford and Goose Creek near Huddleston.

Roanoke 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 1955.

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.--32 years, 2,486 cfs.

Extremes.--Maximum discharge during year, 49,100 cfs Oct. 16 (gage height, 32.35 ft); minimum, 280 cfs Oct. 13 (gage height, 5.50 ft).
1923-55: 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 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used below 10 ft Apr. 19 to Sept. 30)

5.5	280	12.0	6,750
5.6	320	18.0	14,800
6.0	530	25.0	28,000
7.0	1,330	29.0	38,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	360	970	2,020	3,710	1,240	6,870	2,500	2,080	1,520	1,080	979	1,200
2	340	1,020	1,720	2,970	1,280	9,460	2,390	1,920	1,330	970	1,020	1,470
3	365	1,350	1,750	*2,550	1,420	7,110	2,290	1,820	1,200	898	1,020	d1,800
4	458	1,360	1,570	2,180	1,330	5,940	2,240	1,820	1,140	864	824	d2,200
5	560	1,330	1,470	2,080	1,280	6,290	2,080	1,670	1,100	898	678	d2,000
6	458	1,240	1,520	1,920	1,770	12,500	2,080	1,620	1,080	907	678	d1,800
7	395	1,240	2,180	1,820	8,320	12,900	2,020	1,570	1,200	916	678	d1,600
8	344	1,010	2,130	1,720	9,590	8,820	1,970	1,520	2,440	1,470	1,330	d1,400
9	328	1,050	1,970	1,620	5,600	*5,720	1,870	1,520	2,890	1,100	1,520	1,240
10	312	1,130	2,130	1,570	4,150	4,480	*1,770	1,420	1,970	1,240	2,290	d1,200
11	352	970	2,340	1,570	3,390	3,820	1,820	*1,420	3,510	2,440	2,130	d1,100
12	312	925	2,020	1,670	3,080	3,710	2,440	1,470	10,900	8,080	1,520	d1,100
13	288	916	1,920	1,670	2,660	3,600	4,040	1,620	4,150	6,290	1,420	d1,100
14	*352	898	3,930	1,570	2,180	3,180	6,780	2,340	2,660	3,280	1,720	1,060
15	2,550	792	6,060	1,470	2,240	2,970	18,800	2,130	2,020	2,080	2,860	961.
16	*36,100	824	4,260	1,520	2,290	3,390	9,590	1,720	1,720	1,670	2,080	*1,010
17	20,500	1,010	3,080	1,520	2,130	4,700	5,830	1,520	1,520	1,420	3,080	d1,000
18	3,180	998	2,660	1,470	2,080	5,370	4,590	1,420	1,360	1,380	29,000	4950
19	2,080	1,520	2,970	1,420	1,970	5,140	3,820	1,420	1,330	1,280	22,100	4900
20	1,670	5,370	2,760	1,520	1,820	5,600	3,280	1,380	1,330	*1,240	5,720	864
21	1,470	10,500	2,390	1,470	1,770	5,030	2,970	1,330	1,330	1,200	3,710	848
22	1,280	10,500	1,970	1,420	1,720	4,810	2,760	1,380	1,280	1,110	2,600	880
23	1,200	4,150	1,770	1,570	2,180	5,600	2,660	1,870	1,240	1,050	2,290	864
24	1,060	2,660	1,820	1,570	3,390	5,480	2,760	2,760	1,280	1,020	2,240	970
25	880	2,390	1,770	1,520	3,280	4,260	3,500	3,600	1,970	1,100	2,020	1,080
26	934	2,080	1,620	1,470	2,970	3,820	3,390	3,080	1,870	1,100	d1,800	1,200
27	1,040	1,920	1,420	1,420	2,970	3,820	2,760	2,020	1,720	1,060	d1,700	970
28	880	1,820	1,470	1,420	4,260	3,390	2,550	1,570	1,280	988	d1,500	898
29	988	1,920	1,570	1,280	-----	3,080	2,290	1,420	1,150	1,040	d1,400	d860
30	1,280	2,290	2,860	1,780	-----	2,860	2,180	1,820	1,100	1,330	d1,300	d800
31	1,280	-----	5,030	1,330	-----	2,760	-----	2,080	-----	1,030	1,200	-----
Total	83,616	66,393	74,020	53,290	82,360	166,480	110,020	56,330	60,360	51,511	104,387	35,325
Mean	2,697	2,213	2,388	1,719	2,941	5,370	3,667	1,817	2,012	1,662	3,367	1,178
Cfs/m	1.11	0.914	0.987	0.710	1.22	2.22	1.52	0.751	0.831	0.687	1.39	0.487
In.	1.29	1.02	1.14	0.82	1.27	2.56	1.70	0.87	0.93	0.79	1.60	0.54

Calendar year 1954: Max 36,100 Min 248 Mean 1,809 Cfs/m 0.748 In. 10.15
Water year 1954-55: Max 36,100 Min 288 Mean 2,587 Cfs/m 1.07 In. 14.52

Peak discharge (base, 21,000 cfs).--Oct. 16 (10 p.m.) 49,100 cfs (32.35 ft); Aug. 18 (7:30 p.m.) 35,600 cfs (28.06 ft).

* Discharge measurement made on this day.

d Doubtful gage-height record; discharge estimated on basis of records for stations at Altavista and Randolph.

East Fork Falling 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 1955.

Gage.--Water-stage recorder. Altitude of gage is 740 ft (from topographic map).

Extremes.--1954: Maximum discharge during period June to September, 26 cfs June 14 (gage height, 2.01 ft); minimum, 0.6 cfs Sept. 11 (gage height, 1.06 ft).
1954-55: Maximum discharge during water year, 338 cfs Aug. 17 (gage height, 5.24 ft); minimum, 0.8 cfs Oct. 6 (gage height, 1.10 ft).
Flood in 1928 reached a stage of 8.0 ft, from information by local resident.

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

Discharge, in cubic feet per second, 1954														
Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	al.7	1.4	1.0	1.0	11	1.8	1.3	1.0	.9	21	1.7	1.6	1.0	1.0
2	al.8	1.4	1.4	1.0	12	1.7	*1.0	1.0	.8	22	1.6	1.5	1.1	*1.0
3	*1.9	1.3	1.3	1.0	13	1.9	1.0	.9	.8	23	1.5	1.2	1.1	1.0
4	2.0	1.3	1.0	1.0	14	*2.4	1.0	.9	.8	24	1.5	1.1	1.0	1.0
5	1.8	1.4	1.2	1.0	15	3.3	1.3	1.0	.8	25	1.5	1.0	1.0	1.0
6	1.7	*1.1	1.2	1.0	16	1.9	1.2	*1.1	.8	26	1.5	1.0	1.0	1.0
7	1.7	1.3	1.1	1.0	17	2.0	1.1	1.0	.8	27	1.4	1.0	1.0	1.1
8	1.9	2.5	1.0	.9	18	2.2	1.1	1.0	.8	28	1.4	1.0	1.2	1.0
9	1.9	1.3	1.0	*.9	19	1.9	1.4	1.2	1.4	29	1.4	1.0	1.0	1.0
10	1.8	1.2	1.1	.9	20	1.8	2.2	1.1	1.9	30	1.4	1.0	1.0	1.0
										31	-	1.0	-	-
Total											54.0	58.2	32.9	29.6
Mean											1.80	1.25	.96	.99
Cubic feet per second per square mile											0.353	0.241	0.208	0.194
Runoff in inches											0.39	0.28	0.24	0.22

Peak discharge (base, 150 cfs).--No peak above base.

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement and records for Falling River near Naruna.

Discharge, in cubic feet per second, water year October 1954 to September 1955														
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	1.0	al.7	3.6	3.0	2.7	11	4.2	2.4	2.0	1.8	3.4	1.6		
2	1.0	a2.0	3.6	3.2	2.8	6.4	4.2	2.4	2.0	1.7	2.8	2.1		
3	1.0	a2.2	3.2	*2.9	2.7	8.8	3.9	2.3	2.0	1.7	2.6	2.3		
4	1.0	al.9	3.0	2.8	2.6	8.3	3.9	2.3	2.0	1.7	2.9	1.8		
5	1.0	a2.0	3.2	2.8	2.6	4.8	3.9	2.2	2.0	1.6	2.9	1.7		
6	1.0	al.9	3.9	2.8	2.4	*4.2	3.8	2.2	1.9	1.7	3.0	1.6		
7	1.0	al.7	3.4	2.7	1.7	11	3.8	2.2	2.0	2.1	2.7	1.6		
8	1.2	al.8	3.3	2.7	8.1	7.7	3.3	2.2	3.7	1.8	2.8	1.6		
9	1.3	al.9	6.1	4.9	6.7	3.3	3.3	2.2	2.4	1.8	2.8	1.6		
10	1.2	al.7	4.8	2.7	4.2	5.8	3.3	2.2	2.2	5.8	2.7	1.6		
11	1.2	*al.6	3.8	2.9	5.6	6.2	4.5	2.2	1.3	7.8	2.7	1.6		
12	1.2	1.6	3.6	2.7	3.9	6.4	4.5	2.2	3.0	2.3	4.2	1.6		
13	1.2	1.5	*5.5	2.7	3.3	5.6	4.2	3.3	2.3	2.2	3.9	*1.6		
14	1.3	1.5	9.5	2.7	3.3	5.6	1.4	2.6	2.2	2.0	5.1	1.6		
15	*1.8	1.5	5.0	2.8	3.3	6.7	*7.1	2.4	2.1	1.8	4.1	1.6		
16	2.6	1.4	3.9	2.9	*3.3	6.4	4.2	2.2	*2.0	1.8	3.2	1.6		
17	1.7	1.5	3.7	2.8	3.3	5.6	3.6	2.2	2.0	1.8	9.6	1.6		
18	1.6	2.8	5.2	2.7	2.9	5.6	3.3	2.2	2.0	1.7	*6.3	1.6		
19	al.5	4.0	3.9	2.7	2.7	5.6	3.3	2.1	2.0	1.7	3.7	1.6		
20	al.4	1.4	3.6	2.7	2.7	5.2	2.7	2.1	2.0	*1.7	2.4	1.6		
21	al.2	3.0	3.3	2.7	2.7	5.6	2.7	2.0	2.0	1.6	2.0	1.6		
22	al.5	5.3	3.0	3.3	4.2	8.3	2.7	1.7	1.8	1.6	2.1	1.6		
23	al.4	4.2	2.9	3.0	8.7	5.6	2.6	3.8	1.8	1.8	2.0	1.6		
24	al.1	3.9	2.9	2.9	5.3	4.9	3.3	2.4	1.8	1.7	1.8	1.6		
25	al.1	3.7	2.8	2.9	4.8	5.3	5.8	2.4	2.1	1.6	1.8	1.6		
26	al.1	3.4	2.8	2.7	3.9	5.3	2.9	2.2	2.4	2.2	1.8	1.6		
27	al.4	3.3	2.8	2.7	8.4	4.5	2.6	2.1	1.9	3.3	1.7	1.6		
28	al.4	3.9	2.8	2.7	7.1	4.5	2.6	2.1	1.8	3.6	1.6	1.6		
29	a2.1	5.8	4.3	2.7	-	4.5	2.4	2.2	1.8	3.8	1.6	1.6		
30	al.9	3.8	3.6	2.7	-	4.5	2.4	2.2	1.8	3.7	1.7	1.6		
31	al.8	-	3.2	2.6	-	4.2	-	2.0	-	3.8	1.6	-		
Total	58.4	153.5	120.2	86.8	151.0	271.8	119.0	86.5	74.0	75.2	236.6	49.5		
Mean	1.88	5.12	3.88	2.80	5.39	8.77	3.97	2.79	2.47	2.43	7.63	1.65		
Cfs/m	0.369	1.00	0.761	0.549	1.06	1.72	0.778	0.547	0.484	0.476	1.50	0.324		
In.	0.43	1.12	0.88	0.63	1.10	1.98	0.87	0.63	0.54	0.55	1.73	0.36		

Calendar year 1954: Max - Min - Mean - Cfs/m - In. -
Water year 1954-55: Max 96 Min 1.0 Mean 4.06 Cfs/m 0.796 In. 10.82

Peak discharge (base, 150 cfs).--Oct. 15 (4:30 p.m.) 150 cfs (3.54 ft); Nov. 19 (9 p.m.) 304 cfs (4.87 ft); Nov. 21 (4:30 a.m.) 234 cfs (4.37 ft); Mar. 5 (7 p.m.) 304 cfs (4.71 ft); May 22 (4 p.m.) 175 cfs (3.65 ft); Aug. 17 (7:30 p.m.) 338 cfs (5.24 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for station at Spring Mills and Falling River near Naruna.

East Fork Felling 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 1955.

Gage.--Water-stage recorder. Altitude of gage is 470 ft (from topographic map).

Extremes.--1954: Maximum discharge during period June to September, 298 cfs June 15 (gage height, 2.68 ft); minimum, 1.1 cfs July 27, 28 (gage height, 0.52 ft).

1954-55: Maximum discharge during water year, 1,530 cfs Aug. 18 (gage height, 7.93 ft); minimum, 4.1 cfs Oct. 25, 26 (gage height, 0.62 ft).

Flood of 1940 reached a stage of 19.2 ft, from information by local resident.

Remarks.--Records good except those for period of doubtful gage-height record, which are fair.

Rating table, June 1, 1954, to Sept. 30, 1955 (gage height, in feet, and discharge, in cubic feet per second)

0.6	3.5	1.6	73
.8	9.5	2.0	152
1.0	17	5.0	330
1.4	47		

Discharge, in cubic feet per second, 1954

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	a21	14	8.3	10	11	23	12	7.7	8.6	21	20	17	14	12
2	a22	14	9.5	7.1	12	21	*13	6.2	3.5	22	19	17	13	*12
3	*a23	13	19	9.2	13	22	15	9.8	10	23	19	13	14	8.3
4	25	11	12	6.5	14	*26	13	9.2	5.9	24	21	15	12	10
5	22	17	13	7.4	15	75	14	10	6.8	25	17	12	12	9.8
6	21	*17	17	9.2	16	26	16	*5.3	4.7	26	15	13	14	6.8
7	21	13	15	8.6	17	25	12	9.5	8.0	27	14	8.9	12	12
8	32	18	12	5.9	18	25	13	12	5.6	28	18	8.6	13	8.9
9	29	13	12	*6.5	19	23	15	11	3.8	29	16	7.7	12	12
10	24	16	8.6	6.5	20	21	15	11	2.1	30	14	11	13	9.5
										31	-	12	6.8	-
Total.....										700	419.2	353.9	256.1	
Mean.....										23.3	13.5	11.4	8.54	
Cubic feet per second per square mile.....										0.446	0.259	0.218	0.164	
Runoff in inches.....										0.50	0.30	0.25	0.18	

Peak discharge (base, 600 cfs).--No peak above base.

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement and records for Felling River near Naruna.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	18	28	29	25	152	d38	34	24	18	17	24
2	9.5	21	26	29	28	94	d37	32	23	21	15	30
3	8.9	24	25	*28	25	82	d36	31	22	19	14	51
4	10	20	23	28	24	152	d35	31	22	19	15	33
5	8.9	22	24	27	21	353	d34	29	22	19	16	28
6	10	21	35	27	246	*374	d35	28	21	19	15	26
7	6.2	18	27	26	272	160	d35	27	26	21	15	25
8	7.1	19	28	25	100	d130	34	27	40	21	20	23
9	9.8	12	46	25	55	d100	d31	26	33	27	15	23
10	10	17	51	25	45	d80	d31	25	25	42	19	24
11	11	*18	33	29	52	d70	d34	25	274	46	17	23
12	9.5	16	28	27	43	d62	42	28	84	29	24	23
13	10	16	*40	26	35	d60	38	51	38	26	48	*21
14	8.9	18	182	25	37	d56	110	49	32	23	79	21
15	*130	18	62	25	33	d60	*104	35	28	21	47	24
16	42	17	45	29	*33	d70	57	30	*27	19	25	19
17	17	18	36	27	35	d64	46	28	25	19	302	21
18	15	23	58	25	33	d62	49	27	24	16	*710	22
19	16	120	47	27	31	d60	44	26	27	17	81	22
20	15	182	36	25	30	d60	40	25	27	*19	44	22
21	13	278	30	24	29	d55	37	24	24	23	35	20
22	16	51	35	30	34	d90	40	135	23	14	32	21
23	16	33	32	34	108	d70	36	86	23	16	36	22
24	11	33	28	26	65	d60	56	46	27	16	29	24
25	12	27	26	29	58	d52	108	38	31	17	27	24
26	12	25	25	28	47	d58	59	31	42	15	27	22
27	15	23	25	27	107	d50	47	27	25	16	25	22
28	14	24	25	25	102	d45	42	27	24	15	25	22
29	24	64	39	25	-	d44	38	27	23	15	24	22
30	20	32	40	24	-	d41	35	30	19	17	24	19
31	19	-	31	22	-	d39	-	25	-	17	24	-
Total	534.2	1,236	1,235	830	1,753	2,905	1,408	1,110	1,105	644	1,648	723
Mean	17.2	41.3	39.9	26.8	62.6	93.7	46.9	35.8	36.8	20.8	59.6	24.1
Cfsm	0.330	0.791	0.764	0.513	1.20	1.80	0.898	0.686	0.705	0.398	1.14	0.462
In.	0.38	0.88	0.88	0.59	1.25	2.08	1.00	0.79	0.79	0.46	1.31	0.52

Calendar year 1954: Max - 710 Min 6.2 Mean 42.0 Cfsm 0.805 In. 10.93
Water year 1954-55: Max - 710 Min 6.2 Mean 42.0 Cfsm 0.805 In. 10.93

Peak discharge (base, 600 cfs).--Feb. 6 (9:30 p.m.) 782 cfs (4.84 ft); Mar. 5 (12 p.m.) 1,210 cfs (6.58 ft); June 11 (4 p.m.) 782 cfs (4.84 ft); Aug. 18 (6 a.m.) 1,530 cfs (7.93 ft).

* Discharge measurement made on this day.

d Doubtful gage-height record; discharge estimated on basis of records for station near Appomattox and Felling River near Naruna.

ROANOKE RIVER BASIN

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 1955.

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--19 years (1929-34, 1941-55), 149 cfs.

Extremes--Maximum discharge during year, 5,250 cfs Aug. 18 (gage height, 14.81 ft); minimum, 11 cfs Oct. 7, 8 (gage height, 2.40 ft).
1929-35, 1941-55: 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.

Revisions (water years)--WSP 1333: 1930, 1931-34(M), 1935.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 22, Apr. 26 to Sept. 30				Dec. 23 to Apr. 25			
2.4	11	4.0	323	2.8	64		
2.5	18	6.0	1,040	3.0	100		
2.8	50	10.0	2,700	3.5	216		
3.0	80	12.0	3,610	4.0	362		
3.5	183			7.0	1,430		
				8.0	1,840		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	37	72	98	90	442	120	98	80	61	53	66
2	21	43	66	100	83	308	116	94	78	61	42	117
3	23	70	58	*94	78	216	114	91	74	58	36	392
4	20	48	56	92	87	490	110	89	74	58	34	156
5	18	50	54	85	74	1,020	106	87	72	63	34	115
6	17	51	94	83	490	1,760	110	84	70	74	36	94
7	17	43	72	79	1,040	490	110	80	136	78	254	84
8	12	42	67	74	305	290	102	78	232	66	263	75
9	17	40	80	76	200	*227	100	77	109	64	60	70
10	22	40	140	76	163	190	100	75	87	96	56	72
11	23	37	87	90	175	178	104	*77	872	130	83	69
12	21	38	72	90	168	190	147	89	546	136	72	69
13	20	38	116	81	129	175	122	207	167	89	188	64
14	*21	37	596	81	*133	160	418	219	121	70	1,210	63
15	475	37	*278	79	120	170	*410	136	106	63	466	64
16	228	35	151	90	112	216	227	106	*94	57	125	*61
17	49	38	113	87	114	190	178	96	87	54	1,310	60
18	38	42	160	81	104	193	168	91	82	50	3,610	60
19	36	151	153	83	96	190	156	85	84	48	340	61
20	35	308	109	79	94	185	142	80	85	*48	165	64
21	32	488	93	79	90	175	133	78	77	44	121	58
22	33	145	94	96	98	267	151	165	74	42	102	57
23	35	89	122	116	308	200	133	388	75	50	128	60
24	31	77	98	100	216	168	156	283	104	43	98	64
25	30	70	90	94	211	165	378	186	96	44	80	67
26	31	60	89	89	165	178	181	123	178	43	77	64
27	31	54	85	89	305	147	142	102	91	46	70	58
28	34	56	83	78	335	140	128	93	74	39	67	58
29	57	156	114	76	-	133	113	91	72	39	66	58
30	51	91	151	74	-----	127	106	106	63	45	66	57
31	42	-	108	71	-----	120	-----	87	-----	51	64	---
Total	1,540	2,511	3,721	2,660	5,563	9,100	4,781	3,721	4,160	1,910	9,376	2,477
Mean	49.7	83.7	120	85.8	199	294	159	120	139	61.6	302	82.6
Cfs/m	0.289	0.487	0.698	0.499	1.16	1.71	0.924	0.698	0.808	0.358	1.76	0.480
In.	0.33	0.54	0.80	0.58	1.21	1.97	1.03	0.80	0.90	0.41	2.03	0.54

Calendar year 1954: Max 2,260 Min 10 Mean 104 Cfs/m 0.605 In. 8.21
Water year 1954-55: Max 3,610 Min 12 Mean 141 Cfs/m 0.820 In. 11.14

Peak discharge (base, 1,800 cfs)--Feb. 7 (12:30 a.m.) 2,260 cfs (8.97 ft); Mar. 5 (11:30 p.m.) 3,810 cfs (12.43 ft); June 11 (8:30 p.m.) 2,390 cfs (9.28 ft); Aug. 14 (8 p.m.) 3,910 cfs (12.65 ft); Aug. 18 (7 to 8 a.m.) 5,250 cfs (14.81 ft).

* Discharge measurement made on this day.

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 1955.

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.--9 years, 101 cfs.

Extremes.--Maximum discharge during year, 2,620 cfs Aug. 18 (gage height, 12.68 ft); minimum, 8.4 cfs Oct. 7, 8 (gage height, 0.92 ft).

1946-55: 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.

Revisions (water years).--WSP 1333: 1947(M), 1948, 1949(M).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 17-25)

0.9	7.5	3.0	222
1.0	12	6.0	696
1.3	31	7.0	914
2.0	96	10.0	1,750

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	32	66	52	37	162	70	71	43	30	28	42
2	13	32	58	52	46	157	67	66	40	29	24	50
3	14	37	52	*49	47	110	66	62	39	28	22	83
4	14	35	49	46	37	186	63	61	37	27	20	89
5	11	37	47	46	33	310	62	58	37	27	26	62
6	10	41	64	45	91	886	62	54	35	25	24	54
7	8.4	35	62	44	355	868	62	51	39	44	22	50
8	8.4	33	61	42	517	272	58	50	77	69	42	44
9	11	31	62	42	148	*136	57	48	92	40	33	41
10	15	30	110	42	102	112	57	45	57	43	30	41
11	15	30	79	48	92	100	61	*46	79	70	32	41
12	14	29	62	53	111	125	102	52	131	60	51	41
13	13	30	68	48	81	118	90	92	68	59	122	37
14	*13	30	208	45	84	99	241	229	52	42	119	37
15	60	*29	310	46	81	95	568	122	45	36	250	36
16	201	30	162	51	*74	111	340	79	*43	33	180	*35
17	64	30	89	48	73	103	149	67	40	29	176	34
18	34	37	88	46	70	100	124	60	37	27	1,650	33
19	31	100	105	46	62	107	112	56	38	25	1,210	35
20	30	180	79	46	62	102	*100	52	39	*25	258	40
21	27	215	64	40	60	93	91	48	36	25	95	37
22	25	182	61	52	61	146	99	70	33	25	74	34
23	23	81	70	69	107	174	91	136	33	23	92	36
24	23	76	63	60	116	109	84	89	73	23	73	40
25	23	67	56	55	110	96	186	163	45	25	*59	43
26	23	57	51	51	93	99	164	85	60	23	54	40
27	23	52	52	50	119	89	105	62	50	23	52	37
28	25	51	52	45	208	81	91	54	37	22	48	37
29	42	107	55	41	-	77	81	52	33	44	46	37
30	55	95	65	39	-----	74	75	53	31	31	45	57
31	40	-----	56	36	-----	71	-----	48	-----	30	44	-----
Total	921.8	1,831	2,526	1,475	3,077	5,368	3,578	2,281	1,499	1,062	5,001	1,323
Mean	29.7	61.0	81.5	47.8	110	173	119	73.6	50.0	34.3	161	44.1
Cfsm	0.291	0.598	0.799	0.467	1.08	1.70	1.17	0.722	0.490	0.336	1.58	0.432
In.	0.34	0.67	0.92	0.54	1.12	1.96	1.30	0.83	0.55	0.39	1.82	0.48

Calendar year 1954: Max 1,310 Min 7.2 Mean 77.2 Cfsm 0.757 In. 10.31

Water year 1954-55: Max 1,650 Min 8.4 Mean 82.0 Cfsm 0.804 In. 10.92

Peak discharge (base, 1,000 cfs).--Mar. 6 (8 p.m.) 1,780 cfs (10.12 ft); Aug. 18 (7 p.m.) 2,620 cfs (12.68 ft).

* Discharge measurement made on this day.

Roanoke River at Randolph, Va.

Location.--Lat 36°54'54", long 78°44'28", on right bank 14 ft downstream from bridge on State Highway 26, 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 1955 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.--10 years (1902-5, 1927-29, 1950-55), 3,248 cfs.

Extremes.--Maximum discharge during year, 39,700 cfs Oct. 17 (gage height, 27.08 ft); minimum, 310 cfs Oct. 14 (gage height, 4.10 ft).

1900-1906, 1927-30, 1950-55: 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. Records of chemical analyses, water temperatures, and sediment loads for the water year 1955 are given in WSP 1400.

Revisions (water years).--WSP 1203: 1927-30. See also Records available.

Rating table, water year 1954-55, except periods when rate of change in stage was used as a factor (gage height, in feet, and discharge, in cubic feet per second)

4.0	280	23.0	22,800
5.0	750	24.0	25,600
7.0	2,180	27.0	39,100
18.0	12,200		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	435	1,400	2,800	4,910	1,440	6,640	3,000	2,620	2,180	1,300	1,080	1,820
2	450	1,190	2,280	3,900	1,470	9,430	2,900	2,440	1,740	1,300	1,020	1,860
3	390	1,350	2,100	3,200	1,500	8,160	2,710	2,260	1,540	1,300	1,050	2,980
4	420	1,620	1,900	2,710	1,540	6,570	2,620	2,180	1,440	1,300	980	4,000
5	540	1,580	1,740	2,440	1,440	6,920	2,440	2,100	1,360	1,220	900	2,900
6	595	1,500	1,700	*2,260	1,860	k15,400	2,350	1,940	1,330	1,190	810	2,440
7	505	1,470	2,020	2,100	k9,900	k16,600	2,350	1,900	1,400	1,330	810	2,020
8	415	1,360	2,620	2,020	k12,100	*k10,100	2,260	1,820	2,800	1,500	1,720	1,860
9	370	1,190	2,350	1,900	7,380	7,130	2,180	1,780	3,700	1,620	1,740	1,700
10	360	1,260	2,440	1,820	5,320	5,800	2,020	1,780	2,900	1,360	2,320	1,580
11	355	1,220	2,800	1,820	4,460	5,000	2,020	1,660	2,350	2,620	2,710	1,500
12	400	1,160	2,710	1,900	4,190	4,640	2,260	*1,780	k11,300	k6,900	1,980	1,500
13	358	1,120	2,350	1,980	3,500	4,550	4,280	1,940	k6,030	k7,640	1,940	*1,560
14	*318	1,080	4,420	1,900	2,710	4,370	k8,140	3,400	3,900	4,820	2,980	1,300
15	625	*1,080	7,200	1,780	2,530	4,100	k21,100	3,200	2,710	2,710	6,920	1,260
16	k17,600	990	6,080	1,700	2,620	4,190	k15,500	2,440	2,260	2,020	4,100	1,260
17	*k35,700	1,050	4,480	1,740	2,530	5,000	k6,980	2,020	1,980	1,700	3,900	1,260
18	*12,600	1,190	5,680	1,740	2,350	6,080	5,640	1,820	1,820	1,470	k25,100	1,260
19	3,700	1,470	3,700	1,700	2,180	5,940	4,820	1,700	1,660	1,330	k36,700	1,260
20	2,440	4,340	3,600	1,660	2,100	6,220	4,370	1,620	1,580	*1,300	k19,200	1,260
21	2,180	k10,500	3,200	1,700	1,980	5,940	3,900	1,540	1,580	1,160	6,500	1,220
22	1,900	k14,800	2,710	1,660	1,900	5,800	3,700	1,540	1,540	1,120	3,800	1,160
23	1,700	k5,740	2,180	1,740	2,260	6,010	3,500	2,620	1,440	1,050	3,700	1,120
24	1,500	4,280	2,180	1,860	4,000	6,430	3,400	4,370	1,470	980	2,900	1,120
25	1,440	3,400	2,180	1,860	4,280	5,400	5,240	5,670	1,980	1,050	2,900	1,120
26	1,190	2,900	1,980	1,780	4,000	4,730	5,000	4,730	2,440	1,120	2,530	1,190
27	1,260	2,350	1,780	1,700	3,600	4,550	4,000	3,300	2,260	1,190	2,440	1,260
28	1,260	2,260	1,740	1,660	5,160	4,280	3,400	2,280	1,780	1,080	2,020	1,260
29	1,220	2,260	1,620	1,580	-	3,800	3,000	1,940	1,400	1,020	1,820	1,190
30	1,400	2,900	2,180	1,440	-----	3,500	2,800	1,820	1,300	1,440	1,820	1,160
31	1,660	-	5,240	1,440	-----	3,300	-----	2,800	-	1,260	1,820	-
Total	95,246	79,990	90,240	63,600	100,280	196,580	137,880	75,190	73,170	58,410	150,190	48,180
Mean	3,072	2,666	2,911	2,052	3,581	6,341	4,596	2,425	2,439	1,864	4,845	1,606
Cfs/m	1.02	0.889	0.970	0.684	1.19	2.11	1.53	0.808	0.813	0.628	1.61	0.535
In.	1.18	0.99	1.12	0.79	1.24	2.43	1.71	0.93	0.91	0.72	1.86	0.60

Calendar year 1954: Max 35,700 Min 256 Mean 2,275 Cfs/m 0.758 In. 10.30
Water year 1954-55: Max 36,700 Min 318 Mean 3,203 Cfs/m 1.07 In. 14.48

Peak discharge (base, 20,000 cfs).--Oct. 17 (4:30 p.m.) 39,700 cfs (27.08 ft); Apr. 16 (12:30 a.m.) 22,800 cfs (22.95 ft); Aug. 19 (7 p.m.) 38,500 cfs (26.94 ft).

* Discharge measurement made on this day.

k Computed by using rate of change in stage as a factor.

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 1955.

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.--9 years, 123 cfs.

Extremes.--Maximum discharge during year, 4,710 cfs Aug. 18 (gage height, 13.58 ft); minimum, 2.8 cfs Oct. 10 (gage height, 1.08 ft).

1946-55: Maximum discharge, that of Aug. 18, 1955; 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.

Revisions (water years).--WSP 1333: 1949.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 14-17, Dec. 27 to Feb. 6, July 15 to Aug. 12, Aug. 24 to Sept. 3)

Oct. 1-16					Oct. 17 to Sept. 30				
1.0	2.8	2.5	52		1.5	7	7.0	400	
1.3	9.5	3.0	81		2.0	23	8.0	680	
1.5	15	4.0	141		3.0	69	9.0	1,110	
2.0	32				5.0	202	11.0	2,470	
					6.0	281	13.0	4,170	

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	40	93	46	40	325	54	72	34	13	18	25
2	4.4	35	69	44	46	273	52	64	29	11	17	44
3	4.2	33	58	42	48	188	51	58	26	11	15	98
4	4.2	32	50	42	46	139	48	54	23	11	13	217
5	4.6	39	45	40	40	202	46	51	22	9.4	12	154
6	4.4	40	52	*40	108	555	44	47	20	8.8	10	99
7	4.0	39	61	39	450	870	44	43	57	17	10	64
8	3.6	36	63	38	645	525	43	40	249	21	14	52
9	3.2	32	58	37	425	265	40	37	202	25	17	45
10	3.0	29	87	37	217	150	38	34	122	119	19	39
11	3.4	27	114	45	132	111	39	33	136	257	25	38
12	3.6	26	99	52	139	111	50	*41	188	680	42	34
13	*3.6	26	102	56	120	111	69	64	*170	450	150	*32
14	3.6	25	257	52	100	105	772	136	84	202	366	30
15	42	*24	*425	49	90	108	2,550	174	52	90	1,110	28
16	105	25	450	48	*80	136	1,060	118	39	57	980	27
17	430	26	285	48	75	146	450	72	32	41	851	26
18	457	28	142	47	69	146	233	55	29	54	3,720	26
19	57	40	108	47	63	178	150	46	27	28	3,120	21
20	36	96	96	49	56	188	*118	40	26	*23	1,310	24
21	28	174	75	50	52	156	99	36	25	20	325	28
22	23	135	69	50	50	181	142	50	23	18	136	39
23	18	132	62	66	59	*217	125	146	21	17	311	36
24	16	84	53	81	81	225	114	225	21	15	*75	36
25	15	72	52	78	105	139	344	297	21	24	58	35
26	14	60	51	66	108	102	336	202	24	19	48	35
27	14	52	51	60	87	135	241	84	22	18	40	35
28	14	47	50	54	233	75	136	57	20	16	35	35
29	26	66	50	48	-	66	99	46	17	15	32	33
30	37	99	52	46	-----	61	81	44	15	16	30	34
31	46	--	50	47	-----	58	-----	39	-----	17	26	---
Total	1,432.4	1,620	3,309	1,544	3,812	6,199	7,668	2,505	1,776	2,303.2	12,985	1,479
Mean	46.2	54.0	107	49.8	136	200	256	80.8	59.2	74.3	419	49.3
Cfsm	0.285	0.333	0.660	0.307	0.840	1.23	1.58	0.499	0.365	0.459	2.59	0.304
In.	0.33	0.37	0.76	0.35	0.87	1.42	1.76	0.58	0.41	0.53	2.99	0.34

Calendar year 1954: Max 1,290 Min 0.8 Mean 89.2 Cfsm 0.551 In. 7.47
Water year 1954-55: Max 3,720 Min 3.0 Mean 128 Cfsm 0.790 In. 10.71

Peak discharge (base, 1,000 cfs).--Apr. 15 (9 a.m.) 2,950 cfs (11.63 ft); Aug. 18 (7:30 p.m.) 4,710 cfs (13.58 ft).

* Discharge measurement made on this day.

ROANOKE RIVER BASIN

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 1955.

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.--31 years, 186 cfs.

Extremes.--Maximum discharge during year, 5,560 cfs June 11 (gage height, 7.82 ft); minimum, 30 cfs Oct. 8 (gage height, 0.90 ft); minimum daily, 48 cfs Oct. 4, 11.

1924-55: 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 fair. Considerable diurnal fluctuation and some regulation by Pinnacles powerplant and two reservoirs 28 miles above station with a combined capacity of 416,000,000 cu ft.

Revisions.--WSP 892: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.9	30	2.5	462
1.1	52	3.0	750
1.3	80	4.0	1,490
1.5	118	5.0	2,450
2.0	250		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	65	102	154	129	216	213	213	138	127	129	94
2	65	98	98	135	102	204	207	202	133	125	133	91
3	71	93	98	120	104	190	199	225	140	112	133	98
4	48	84	91	129	89	180	182	213	122	102	*140	102
5	81	91	98	125	93	216	202	219	112	100	136	77
6	58	84	169	129	674	244	210	213	112	122	138	94
7	*56	87	125	118	561	219	202	204	200	145	220	91
8	52	76	120	110	250	199	199	190	174	133	164	84
9	61	77	127	110	182	182	186	*182	145	154	131	84
10	58	80	118	94	157	172	180	177	145	246	131	82
11	48	78	106	127	*172	172	219	202	1,650	193	142	93
12	56	77	110	120	140	193	322	210	343	322	133	78
13	58	80	133	120	164	164	550	231	204	167	131	78
14	61	78	199	118	182	150	2,160	222	180	140	127	*78
15	1,070	70	147	108	147	157	892	199	147	145	131	76
16	238	*78	127	102	129	213	452	177	147	138	140	72
17	147	508	120	91	129	257	355	199	147	120	230	71
18	112	198	147	104	122	270	299	185	152	118	241	89
19	98	174	133	110	114	303	299	193	147	114	174	60
20	87	177	118	106	110	295	284	185	157	108	167	72
21	85	140	108	110	89	267	284	185	145	102	140	82
22	82	114	118	108	120	396	307	219	*147	102	142	74
23	82	114	125	104	177	318	264	587	133	131	140	84
24	77	112	100	96	159	*277	267	311	133	351	140	89
25	65	100	98	106	164	270	288	219	133	318	100	112
26	77	89	89	100	140	257	270	193	127	162	91	76
27	74	98	89	98	133	241	260	190	104	152	89	87
28	77	108	104	100	154	219	257	187	114	154	93	84
29	110	133	*235	98	-	234	241	159	114	125	76	82
30	87	114	322	91	---	225	231	164	114	122	102	84
31	84	213	120	120	---	219	---	150	---	164	94	---
Total	3,470	3,473	4,093	3,459	4,886	7,119	10,471	6,605	5,959	4,814	4,278	2,518
Mean	112	116	132	112	174	230	349	213	199	155	138	83.9
Cfsm	0.903	0.935	1.06	0.903	1.40	1.85	2.81	1.72	1.60	1.25	1.11	0.677
In.	1.04	1.04	1.23	1.04	1.47	2.14	3.14	1.98	1.79	1.44	1.28	0.76

Calendar year 1954: Max	1,150	Min	48	Mean	127	Cfsm	1.02	In.	13.87
Water year 1954-55: Max	2,160	Min	48	Mean	168	Cfsm	1.35	In.	18.35

Peak discharge (base, 2,000 cfs).--Oct. 15 (2 p.m.) 3,690 cfs (6.20 ft); Apr. 14 (4 a.m.) 4,360 cfs (6.75 ft); June 11 (8 a.m.) 5,560 cfs (7.82 ft); July 24 (11 p.m.) 2,010 cfs (4.55 ft).

* Discharge measurement made on this day.

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 1955.

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--25 years (1929-35, 1936-55), 121 cfs.

Extremes--Maximum discharge during year, 2,420 cfs Oct. 15 (gage height, 6.15 ft); minimum, 18 cfs Oct. 8 (gage height, 1.08 ft).

1928-55: 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, that of Oct. 8, 1954.

Remarks--Records good.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 12 to July 12)

Oct. 1 to Apr. 14

Apr. 15 to Sept. 30

1.1	18	2.0	156	1.3	28	2.5	292
1.2	21	2.5	297	1.5	48	3.0	478
1.3	28	3.0	478	1.6	61	3.5	710
1.4	38	4.0	975	1.9	120		
1.7	84	5.0	1,570				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	49	80	108	70	138	84	93	71	46	75	48
2	26	55	75	99	62	*123	84	*87	67	45	54	53
3	27	71	70	91	60	102	84	*87	64	42	49	72
4	24	59	65	82	53	102	79	87	64	44	46	59
5	22	59	65	80	55	246	77	85	64	41	44	57
6	22	58	125	77	577	539	79	83	61	45	48	54
7	20	53	97	73	1,020	217	80	79	122	40	49	52
8	19	51	86	71	242	153	75	77	326	99	97	47
9	23	49	95	71	164	130	75	75	113	108	58	46
10	24	48	113	70	133	118	75	74	91	66	58	47
11	24	48	88	68	133	113	80	74	580	69	53	46
12	23	46	80	71	116	116	219	79	198	217	58	46
13	22	46	129	68	97	104	153	99	108	244	51	45
14	22	45	445	63	102	97	1,120	108	85	106	53	44
15	1,080	45	219	62	93	99	569	91	75	83	72	44
16	661	45	140	62	88	120	248	81	71	69	54	42
17	111	51	113	60	85	116	184	79	64	64	284	41
18	79	60	151	59	82	113	157	81	60	60	490	40
19	71	121	148	62	77	140	141	74	61	56	123	39
20	63	170	116	63	75	172	128	71	66	61	75	37
21	56	208	102	65	73	140	118	69	57	53	72	36
22	53	108	95	66	75	309	125	85	54	51	63	37
23	51	86	97	66	104	208	111	120	49	48	60	49
24	48	82	84	65	97	151	123	376	67	52	56	48
25	46	75	80	62	99	133	260	149	57	64	53	51
26	45	68	75	60	91	125	138	99	54	49	52	48
27	*44	65	75	62	88	111	118	85	*51	47	51	42
28	45	65	*75	59	93	104	108	81	48	51	49	42
29	68	138	158	59	-	102	102	75	47	71	48	40
30	60	*93	228	59	-----	95	95	102	46	58	*48	39
31	52		138	70	-----	91	-----	77	-----	85	48	-
Total	2,954	2,217	3,717	2,153	4,105	4,627	5,089	2,982	2,921	2,234	2,491	1,401
Mean	95.3	73.9	120	69.5	147	149	170	96.2	97.4	72.1	80.4	46.7
Cfsm	0.882	0.684	1.11	0.644	1.36	1.38	1.57	0.891	0.902	0.668	0.744	0.432
In.	1.02	0.76	1.28	0.74	1.42	1.59	1.75	1.03	1.01	0.77	0.86	0.48

Calendar year 1954: Max 1,130 Min 19 Mean 88.3 Cfsm 0.818 In. 11.08
Water year 1954-55: Max 1,120 Min 19 Mean 101 Cfsm 0.935 In. 12.71

Peak discharge (base, 1,400 cfs)--Oct. 15 (6 p.m.) 2,420 cfs (6.15 ft); Feb. 7 (4 a.m.) 1,780 cfs (5.34 ft); Apr. 14 (5 p.m.) 1,680 cfs (5.16 ft).

* Discharge measurement made on this day.

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 1955.

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.--26 years, 321 cfs.

Extremes.--Maximum discharge during year, 6,960 cfs Oct. 15 (gage height, 7.44 ft); minimum, 32 cfs Oct. 8 (gage height, 0.55 ft).

1929-55: 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, that of Oct. 8, 1954.

Remarks.--Records good. Slight infrequent diurnal fluctuation at low flow caused by small mills above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.5	26	2.0	445
.6	37	3.0	1,080
.8	68	4.0	1,900
1.0	103	5.0	3,020
1.3	165	6.0	4,450
1.6	260		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	123	195	280	160	322	238	264	205	158	218	142
2	73	134	181	256	158	300	238	253	195	158	156	154
3	70	176	165	231	158	264	235	246	189	151	142	198
4	58	147	151	211	134	260	228	246	178	151	134	192
5	52	149	158	208	142	540	214	238	184	149	127	170
6	48	149	296	202	1,470	1,120	224	231	178	142	132	158
7	40	136	235	184	2,240	545	235	221	284	136	165	151
8	35	132	195	181	636	400	211	221	796	221	308	142
9	46	127	221	178	425	*336	205	214	280	249	165	134
10	57	125	276	176	336	300	205	211	242	246	160	136
11	54	121	218	181	336	288	218	211	1,560	276	149	136
12	54	121	198	192	296	318	549	221	655	775	165	136
13	50	119	291	178	228	300	*658	272	390	472	140	132
14	50	117	920	163	260	264	*3,740	304	309	268	149	127
15	2,930	117	*500	160	238	260	1,990	256	272	218	187	127
16	*1,540	116	322	158	231	332	815	228	253	192	154	123
17	276	138	268	156	231	360	578	228	231	178	789	114
18	192	195	327	151	218	318	495	218	218	160	1,230	112
19	170	276	332	168	205	385	440	205	218	149	340	112
20	156	410	264	160	202	475	400	195	231	156	228	107
21	138	493	231	147	195	390	365	189	208	142	214	99
22	129	256	211	170	195	718	385	290	202	138	202	103
23	123	211	211	173	264	556	340	458	198	132	170	123
24	116	202	192	165	260	425	391	*1,650	*251	136	163	134
25	114	189	184	163	264	370	808	465	202	249	*154	136
26	112	173	176	*151	238	350	400	314	187	151	154	136
27	*112	163	176	158	235	300	340	264	173	136	149	121
28	112	160	175	156	246	284	318	242	168	144	144	116
29	156	304	322	151	-	272	296	235	165	173	142	108
30	158	224	567	151	-----	256	276	280	160	163	144	105
31	129	-	360	132	-----	249	-----	224	-----	242	147	-
Total	7,399	5,503	8,516	5,491	10,201	11,857	16,035	9,294	8,982	6,411	7,019	3,984
Mean	239	183	275	177	364	382	534	300	299	207	226	133
Cfsm	0.919	0.704	1.06	0.681	1.40	1.47	2.05	1.15	1.15	0.796	0.869	0.512
In.	1.06	0.79	1.22	0.79	1.46	1.70	2.29	1.33	1.28	0.92	1.00	0.57
Calendar year 1954: Max	3,140				Min 35	Mean 226		Cfsm 0.869		In. 11.79		
Water year 1954-55: Max	3,740				Min 35	Mean 276		Cfsm 1.06		In. 14.41		

Peak discharge (base, 3,500 cfs).--Oct. 15 (8:30 p.m.) 6,960 cfs (7.44 ft); Feb. 6 (11 p.m.) 4,150 cfs (5.75 ft); Apr. 14 (12 m.) 6,000 cfs (6.92 ft); May 24 (5 a.m.) 3,700 cfs (5.50 ft).
 * Discharge measurement made on this day.

Dan River near Wentworth, N. C.

Location.--Lat 36°25', long 79°50', on right bank 600 ft downstream from Settles Bridge, 3½ miles northwest of Wentworth, Rockingham County, and 7½ miles downstream from Mayo River.

Drainage area.--1,050 sq mi, approximately.

Records available.--November 1939 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 518 ft (by barometer). Prior to Aug. 3, 1948, at site 150 ft upstream at same datum.

Average discharge.--16 years, 1,161 cfs.

Extremes.--Maximum discharge during year, 26,500 cfs Oct. 16 (gage height, 22.79 ft); minimum, 65 cfs Oct. 8 (gage height, 0.93 ft); minimum daily, 107 cfs Oct. 2.
1939-55: 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, that of Oct. 8, 1954; minimum daily, that of 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. Slight diurnal fluctuation and regulation at low flow caused by powerplants above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.2	103	6.0	2,350
1.5	160	9.0	4,850
2.0	278	12.0	7,500
2.5	456	16.0	11,800
3.0	663	20.0	17,800
4.0	1,120	22.0	23,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	152	383	818	998	500	1,020	a900	975	684	421	818	394
2	107	350	728	930	642	1,140	a900	950	600	417	642	417
3	192	500	663	840	621	1,020	a850	885	600	421	529	621
4	179	484	600	772	545	975	908	885	579	433	500	750
5	164	460	575	728	480	1,020	840	862	529	621	464	579
6	112	492	a1,200	728	2,790	3,330	862	840	568	504	480	496
7	121	440	a1,000	706	13,380	2,000	908	795	529	448	464	452
8	114	425	a800	621	3,540	1,590	908	795	1,650	579	2,400	417
9	112	398	a900	642	1,870	1,140	795	750	918	930	1,040	398
10	125	375	a1,100	642	1,360	*1,020	818	706	728	750	663	336
11	152	375	a900	642	1,330	975	818	706	2,930	1,510	554	365
12	148	368	a800	728	1,570	1,170	1,370	795	3,540	4,310	728	417
13	138	365	1,200	663	998	1,120	1,800	1,130	1,280	2,870	579	436
14	130	368	5,340	600	998	975	*10,600	1,510	908	1,120	772	350
15	7,410	383	2,910	579	1,070	908	*17,800	998	772	840	840	340
16	22,800	*365	*1,570	600	952	1,370	5,880	885	706	706	706	343
17	2,510	500	1,120	562	952	2,580	2,420	750	642	621	2,320	309
18	952	1,750	1,220	529	952	a1,900	1,870	795	621	575	7,020	306
19	728	998	1,510	575	840	a1,700	1,630	728	600	504	1,620	326
20	600	1,630	1,140	621	818	a3,400	1,420	684	663	571	952	312
21	492	3,710	930	533	772	a2,000	1,330	663	600	504	750	264
22	480	1,570	818	600	728	a2,400	1,330	706	579	456	706	264
23	433	975	750	706	840	a2,000	1,240	1,750	740	425	621	272
24	402	908	840	663	998	a1,700	1,170	*3,140	840	398	621	309
25	397	795	750	621	952	a1,400	3,900	1,690	642	2,080	*537	440
26	357	728	684	*579	908	a1,300	2,080	1,120	541	885	496	452
27	*357	621	684	862	908	a1,450	1,450	908	521	621	444	350
28	350	621	663	600	908	a1,000	1,240	952	476	537	406	312
29	383	1,220	706	558	-	a1,000	1,140	772	456	621	425	312
30	558	1,170	1,500	566	-----	a950	1,040	772	456	600	387	386
31	425	-----	1,300	496	-----	a900	-----	795	-----	600	421	-----
Total	41,567	23,727	35,719	20,228	43,176	45,883	70,217	30,672	25,916	26,878	29,905	11,725
Mean	1,341	791	1,152	653	1,542	1,480	2,341	989	864	867	965	391
Cfs/m	1.28	0.753	1.10	0.622	1.47	1.41	2.23	0.942	0.823	0.826	0.919	0.372
In.	1.47	0.84	1.27	0.72	1.53	1.63	2.49	1.09	0.92	0.95	1.06	0.42
Calendar year 1954: Max	22,800			Min	107		Mean	919	Cfs/m	0.875	In.	11.86
Water year 1954-55: Max	22,800			Min	107		Mean	1,111	Cfs/m	1.06	In.	14.39

Peak discharge (base, 12,000 cfs).--Oct. 16 (6 a.m.) 26,500 cfs (22.79 ft); Feb. 7 (2 p.m.) 15,200 cfs (18.50 ft); Apr. 15 (9 a.m.) 19,200 cfs (20.64 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.

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 1955.

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.--9 years, 299 cfs.

Extremes.--Maximum discharge during year, 1,720 cfs June 28 (gage height, 5.60 ft); minimum daily, 53 cfs Oct. 24.

1946-55: 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).

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 table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.0	31	2.9	215
2.3	63	4.0	700
2.6	125		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	268	206	272	61	284	a300	a190	a64	*257	262	272	a250
2	59	270	275	59	*279	279	a62	a270	291	57	273	a250
3	59	266	270	270	292	a300	a64	a270	274	57	278	a56
4	186	270	59	268	279	a300	a250	268	57	272	274	a56
5	*178	280	59	272	62	a62	a290	268	57	272	285	a250
6	*180	61	284	293	64	a64	a280	255	272	271	62	a250
7	176	61	272	261	276	a300	a280	55	263	270	63	a250
8	186	266	276	62	282	a290	a280	55	265	192	286	a250
9	57	280	274	62	269	a290	a62	250	268	63	270	a250
10	57	284	280	275	276	a280	a64	264	264	57	270	a56
11	180	272	59	284	278	a270	a300	256	59	277	282	a56
12	174	276	59	278	a62	a62	a300	265	57	374	274	a250
13	176	61	278	276	a64	a64	a300	257	280	350	59	a250
14	180	61	258	282	a290	a280	a300	55	283	364	59	a250
15	204	276	274	63	a280	a280	a300	55	272	338	270	a250
16	59	277	270	63	278	a280	a62	260	277	56	266	a250
17	59	283	278	291	280	a280	a64	269	264	56	262	a56
18	180	274	59	276	302	a280	a290	264	57	272	266	a56
19	220	270	58	284	63	a62	a290	264	57	272	269	a250
20	213	59	284	274	63	a64	a290	256	273	266	56	a250
21	216	59	280	274	278	a300	a290	55	270	269	55	a250
22	204	303	272	63	274	a290	a290	55	271	274	272	a250
23	55	310	260	70	387	a290	a62	303	280	56	258	a250
24	53	260	113	282	390	a290	a64	250	308	56	240	a56
25	177	274	59	274	400	a280	a320	262	57	279	225	a56
26	182	274	59	276	61	a62	a320	261	57	266	218	a250
27	187	59	267	394	61	a64	a310	267	263	271	56	a250
28	193	59	278	392	a300	a200	a300	56	276	268	56	a250
29	202	313	254	63	-	a190	a300	56	265	266	218	a250
30	64	*318	294	65	-----	a190	a62	256	274	56	a250	a250
31	61	-----	296	285	-----	a190	-----	257	-----	60	a250	-----
Total	4,647	6,582	6,630	6,710	6,474	6,733	6,636	6,298	6,468	6,529	6,494	5,948
Mean	150	219	214	216	231	217	221	203	216	211	209	198
(†)	+27	-71	-20	-73	+96	+158	+246	+17	+36	-60	-4	-68

Adjusted for change in contents in Philpott Reservoir

Mean	177	148	194	143	327	375	467	220	252	151	205	130
Cfsm	0.835	0.698	0.915	0.675	1.54	1.77	2.20	1.04	1.19	0.712	0.967	0.613
In.	0.96	0.78	1.05	0.78	1.60	2.04	2.46	1.20	1.33	0.82	1.11	0.68
Observed												
Adjusted												
Calendar year 1954:	Max	344	Min	53	Mean	208	Mean	164	Cfsm	0.868	In.	11.78
Water year 1954-55:	Max	400	Min	53	Mean	209	Mean	232	Cfsm	1.09	In.	14.81

Peak discharge (base, 3,000 cfs).--No peak above base.

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir.

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

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 North 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 1955.

Gage.--Water-stage recorder. Datum of gage is 753.09 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--16 years, 349 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 2,850 cfs Oct. 15 (gage height, 4.81 ft); minimum, 42 cfs Oct. 12 (gage height, 1.26 ft).
1939-55: Maximum discharge, 26,600 cfs Aug. 14, 1940 (gage height, 18.28 ft); minimum, 23 cfs Sept. 18, 26, 1953 (gage height, 1.06 ft).
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. Flow regulated since August 1950 by Philpott Reservoir (usable capacity, 145,200 acre-ft).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 14

Dec. 15 to Sept. 30

1.3	48	2.5	580	1.3	57	2.5	580
1.5	95	3.0	920	1.5	106	3.0	920
1.8	206			2.0	305	3.5	1,380

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	280	210	289	98	297	*472	219	90	290	298	294	294
2	65	300	278	92	322	352	75	306	296	72	304	281
3	63	313	287	300	314	327	70	*305	298	72	292	92
4	186	300	77	288	322	332	205	296	72	298	298	82
5	178	301	77	288	30	118	342	316	72	289	289	295
6	*175	87	307	294	573	145	298	302	293	290	72	282
7	170	82	295	287	498	346	304	82	323	310	112	298
8	176	299	288	87	362	330	293	82	328	214	339	292
9	61	294	291	82	346	322	79	307	297	87	316	296
10	61	294	291	280	332	314	79	302	296	75	298	77
11	176	286	77	298	347	318	322	304	288	312	304	79
12	174	282	74	284	124	95	404	294	106	416	315	302
13	166	74	294	296	152	87	352	328	308	402	75	294
14	172	72	681	286	330	301	1,240	92	321	409	77	298
15	1,200	282	346	84	334	318	544	87	299	372	312	299
16	104	281	314	79	322	313	142	300	313	72	292	293
17	82	282	311	282	328	318	122	307	296	70	1,060	68
18	180	280	125	280	333	324	333	296	75	302	474	68
19	220	330	109	300	101	98	324	306	77	298	324	286
20	212	116	304	295	95	106	322	294	300	298	84	293
21	214	104	308	290	313	321	311	79	298	300	79	284
22	208	344	292	84	328	356	327	90	290	290	292	296
23	63	344	298	87	464	329	95	366	317	68	305	296
24	61	294	135	285	464	332	101	310	377	70	266	72
25	151	298	87	295	468	183	376	318	87	296	242	75
26	165	288	84	302	109	87	376	297	87	304	247	298
27	186	77	300	434	116	79	338	307	*296	286	70	336
28	*196	77	298	414	711	222	320	79	310	306	68	300
29	224	343	*326	82	-	216	434	79	297	294	246	291
30	77	332	328	79	-----	213	95	290	301	70	292	290
31	77	-----	307	293	-----	150	-----	307	-----	75	295	-----
Total	5,723	7,266	7,878	7,225	8,895	7,824	8,842	7,518	7,608	7,315	8,333	7,107
Mean	185	242	254	233	318	252	295	243	254	236	269	237
(t)	+27	-71	-20	-73	+96	+158	+246	+17	+36	-60	-4	-68

Adjusted for change in contents in Philpott Reservoir

Mean Cfsm In.	212	171	234	160	414	410	541	260	290	176	265	169
	0.838	0.676	0.925	0.632	1.64	1.62	2.14	1.03	1.15	0.696	1.05	0.688
	0.97	0.75	1.07	0.73	1.71	1.87	2.39	1.19	1.28	0.80	1.21	0.75
Observed						Adjusted						
Calendar year 1954:	Max	1,200	Min	56	Mean	238	Mean	214	Cfsm	0.846	In.	11.46
Water year 1954-55:	Max	1,240	Min	61	Mean	251	Mean	274	Cfsm	1.08	In.	14.72

Peak discharge (base, 4,500 cfs).--No peak above base.

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir.

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 1955.

Gage--Water-stage recorder. Datum of gage is 657.22 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge--26 years, 457 cfs.

Extremes--Maximum discharge during year, 9,000 cfs Oct. 15 (gage height, 8.98 ft); minimum, 3.8 cfs Mar. 19 (gage height, 1.14 ft); minimum daily, 47 cfs Oct. 3, July 17. 1929-55: 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, that of Mar. 19, 1955; minimum daily, 19 cfs Oct. 6, 1935.

Remarks--Records good. Flow regulated since August 1950 by Philpott Reservoir (usable capacity, 145,200 acre-ft). Some additional regulation by powerplant 1,000 ft above station.

Revisions (water years)--WSP 1032: 1933-35(M), 1936-39, 1940-41(P).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.6	35	3.0	730
1.8	86	4.0	1,720
2.0	152	6.0	4,280
2.5	380		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	296	249	376	252	358	876	234	137	*316	355	340	339
2	164	290	368	168	358	545	152	284	346	179	316	367
3	47	351	366	302	354	422	96	398	328	80	345	224
4	178	354	200	363	348	426	230	342	179	330	309	178
5	222	348	114	358	196	596	382	345	86	329	327	335
6	203	216	392	378	1,500	893	350	328	317	438	181	378
7	180	81	384	355	1,180	447	336	147	503	354	82	320
8	206	288	360	225	592	452	324	104	658	330	554	369
9	155	313	392	108	428	407	152	327	392	166	346	322
10	52	337	388	300	388	390	94	324	397	84	348	202
11	178	314	240	387	412	392	348	330	930	376	370	118
12	214	334	116	348	268	302	576	321	300	553	309	277
13	184	207	406	370	120	108	456	406	391	498	212	329
14	205	86	1,320	356	308	312	1,950	230	380	455	136	354
15	3,980	264	630	224	363	428	896	109	368	444	308	318
16	653	338	464	99	359	406	390	323	368	197	342	326
17	136	340	408	304	355	390	210	341	348	47	974	182
18	258	344	354	340	358	594	378	323	179	335	1,500	97
19	270	474	276	352	250	270	390	346	96	324	507	268
20	279	553	330	370	94	208	388	331	372	320	214	314
21	260	516	384	351	296	414	358	158	352	334	207	322
22	268	398	359	261	360	640	376	140	359	319	343	337
23	128	440	375	83	488	470	190	440	361	116	381	392
24	62	378	242	296	513	432	152	339	485	118	311	158
25	224	354	210	355	520	298	504	455	130	338	272	84
26	212	364	72	362	324	184	432	341	172	333	284	308
27	252	188	322	456	148	138	415	342	330	322	193	558
28	*242	122	*364	482	549	274	365	172	356	374	114	323
29	280	442	507	230	-	286	386	98	335	406	206	283
30	184	424	569	96	-----	250	264	406	341	156	*381	330
31	86	-----	423	276	-----	*244	-----	368	-----	140	375	-----
Total	10,258	9,707	11,711	9,214	11,787	12,294	11,774	9,055	10,475	9,150	11,067	8,522
Mean	331	324	378	297	421	397	392	292	349	295	357	284
(†)	+27	-71	-20	-73	+96	+158	+246	+17	+36	-60	-4	-68

Adjusted for change in contents in Philpott Reservoir

Mean Cfsm In.	358	253	358	224	517	555	638	309	385	235	353	216
	0.957	0.676	0.957	0.599	1.38	1.48	1.71	0.826	1.03	0.628	0.944	0.578
	1.10	0.75	1.10	0.69	1.44	1.71	1.91	0.95	1.15	0.72	1.09	0.64
Observed												
Adjusted												
Calendar year 1954:	Max	3,980	Min	35	Mean	345	Mean	321	Cfsm	0.858	In.	11.61
Water year 1954-55:	Max	3,980	Min	47	Mean	343	Mean	366	Cfsm	0.979	In.	13.25

Peak discharge (base, 6,500 cfs).--Oct. 15 (7 p.m.) 9,000 cfs (8.98 ft).

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 539.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--16 years, 618 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 12,200 cfs Oct. 15 (gage height, 10.78 ft); minimum, 65 cfs Oct. 4 (gage height, 1.38 ft); minimum daily, 85 cfs Oct. 11.
1939-55: 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 $1\frac{1}{2}$ miles downstream; minimum, 60 cfs Oct. 12, 1953; minimum daily, 66 cfs Sept. 10, 1944.

Remarks.--Records fair except those for periods of no gage-height record, which are poor. Flow regulated since August 1950 by Philpott Reservoir (usable capacity, 145,200 acre-ft). Some additional regulation by powerplant at Martinsville, Va.

Rating table, water year 1954-55 (gage height; in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 17 to June 25)

1.4	68	3.0	840
1.5	86	4.0	1,690
1.8	155	5.0	2,680
2.2	308	6.0	3,840
2.6	540	7.0	5,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	309	196	460	a400	366	1,300	311	218	432	397	270	405
2	318	286	a450	a300	397	833	386	230	413	363	403	396
3	128	412	a400	a250	391	588	195	428	422	182	380	458
4	90	384	a300	a350	382	556	280	414	389	213	377	276
5	203	396	a200	a400	338	766	366	408	180	374	348	216
6	214	399	a300	a440	1,340	2,410	495	408	231	391	372	408
7	205	156	a430	a440	3,560	892	425	384	469	507	153	398
8	234	210	a430	a250	1,040	839	431	182	1,400	430	566	389
9	226	343	a430	a200	668	605	384	226	572	332	463	376
10	118	356	a430	a300	564	*547	202	401	487	295	417	382
11	85	361	a350	a450	576	548	316	401	1,560	369	410	187
12	202	346	a200	a420	594	562	711	419	912	942	410	187
13	216	316	a400	415	227	280	597	522	381	811	407	386
14	211	184	a2,500	404	320	366	3,440	557	479	580	250	368
15	4,900	188	a1,000	352	464	524	2,170	358	428	536	276	368
16	4,150	338	*a600	188	466	621	930	177	423	501	393	372
17	320	346	573	228	466	619	414	419	414	181	1,550	386
18	298	378	642	378	449	618	382	415	411	217	4,220	183
19	334	471	497	420	424	560	504	401	187	402	794	166
20	342	892	390	420	207	550	482	404	269	396	524	353
21	312	1,400	510	395	273	526	448	382	404	380	313	356
22	322	504	470	406	420	1,070	471	227	413	367	235	379
23	288	578	456	200	520	825	425	528	442	340	428	444
24	160	510	427	249	602	606	261	474	*498	171	418	241
25	181	436	266	404	644	650	1,320	*607	444	305	345	176
26	243	412	a180	*390	592	369	600	470	238	387	321	222
27	*264	374	a300	426	238	320	562	430	234	380	343	*346
28	282	184	a400	555	394	320	500	418	400	355	183	386
29	328	470	a550	432	-	388	451	171	403	529	164	357
30	356	544	a800	174	-----	390	572	356	398	477	300	368
31	157	-----	a600	204	-----	375	-----	438	-----	245	397	-----
Total	15,997	12,350	15,941	10,900	16,942	20,283	19,031	11,852	14,303	12,255	16,430	9,935
Mean	516	412	514	352	605	654	634	382	477	395	530	331
(t)	+27	-71	-20	-73	+96	+158	+246	+17	+36	-60	-4	-68

Adjusted for change in contents in Philpott Reservoir

Mean	543	341	494	279	701	812	880	399	513	335	526	263
Cfs/m	1.01	0.634	0.918	0.519	1.30	1.51	1.64	0.742	0.953	0.623	0.978	0.489
In.	1.16	0.71	1.06	0.60	1.35	1.74	1.83	0.86	1.06	0.72	1.13	0.55
Observed												
Adjusted												
Calendar year 1954:	Max	4,900	Min	84	Mean	483	Mean	459	Cfs/m	0.853	In.	11.56
Water year 1954-55:	Max	4,900	Min	85	Mean	483	Mean	506	Cfs/m	0.941	In.	12.77

* 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 recorded range in stage and records for station at Martinsville, Va.

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 1955.

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.--25 years (1930-55), 102 cfs.

Extremes.--Maximum discharge during year, 7,830 cfs Oct. 15 (gage height, 8.65 ft); minimum, 8.5 cfs Oct. 8 (gage height, 1.01 ft); minimum daily, 12 cfs Oct. 7, 8.
1929-55: Maximum discharge, 23,000 cfs Aug. 14, 1940 (gage height, 14.8 ft, 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 period of no gage-height record, which are fair. Diurnal fluctuation at low flow caused by small mill above station.

Revisions (water years).--WSP 972: 1930-41.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 13-15)

1.0	8	3.0	595
1.2	18	4.0	1,190
1.5	80	5.0	2,050
2.0	203	6.0	3,330
2.5	350		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	42	69	67	60	a150	85	90	46	40	52	54
2	20	46	65	67	56	a150	82	90	44	36	42	78
3	14	54	58	62	54	a110	80	92	42	38	44	172
4	16	*44	56	*60	50	a150	78	73	40	36	44	114
5	14	58	58	58	54	a250	73	69	38	36	38	82
6	13	54	109	56	616	a600	80	67	38	36	38	71
7	12	48	94	54	952	a200	80	82	80	60	42	65
8	12	42	104	52	237	a150	73	62	404	44	138	56
9	14	40	104	54	157	a130	71	58	114	48	71	54
10	14	38	150	54	128	a120	71	56	76	126	58	54
11	16	36	104	65	152	a120	80	58	398	424	54	54
12	*13	34	90	65	150	a120	109	*67	203	537	67	54
13	14	34	156	58	128	a110	*99	156	99	193	52	48
14	14	34	*683	54	126	a110	508	126	*78	106	611	*50
15	2,600	32	231	54	*a100	a110	544	85	71	82	266	48
16	1,670	32	154	54	a90	a130	208	69	82	69	97	46
17	152	36	123	52	a90	a120	150	65	58	82	1,310	46
18	94	38	152	52	a90	a120	128	60	54	54	1,690	44
19	85	42	135	60	a80	a150	116	56	54	*48	211	42
20	71	68	111	54	a80	a180	104	52	56	44	130	42
21	60	211	97	62	a80	a150	99	50	50	44	102	36
22	54	97	104	65	a80	a300	94	135	48	42	94	40
23	48	90	104	67	a110	190	87	150	56	38	*80	48
24	48	78	80	56	a100	139	94	67	80	42	71	48
25	44	69	76	56	a100	126	780	147	56	62	65	48
26	42	60	71	56	a100	118	211	78	52	42	62	46
27	40	56	69	58	a90	106	142	62	44	38	60	40
28	44	56	69	54	a120	99	116	58	46	95	56	40
29	54	121	76	54	-	94	102	56	42	54	58	36
30	54	80	76	52	-	90	92	58	40	52	54	52
31	46	-	67	71	-	87	-	50	-	85	54	-
Total	5,407	1,782	3,695	1,805	4,230	4,748	4,636	2,444	2,569	2,691	5,611	1,706
Mean	174	59.4	119	58.2	151	153	155	78.8	85.6	86.8	187	56.9
Cfsm	1.54	0.526	1.05	0.515	1.34	1.35	1.37	0.697	0.758	0.768	1.65	0.504
In.	1.78	0.59	1.21	0.59	1.40	1.56	1.53	0.80	0.85	0.89	1.90	0.56
Calendar year 1954: Max	2,600											
Min	12											
Mean	94.1											
Cfsm	0.833											
In.	11.31											
Water year 1954-55: Max	2,600											
Min	12											
Mean	114											
Cfsm	1.01											
In.	13.66											

Peak discharge (base, 1,500 cfs).--Oct. 15 (3 p.m.) 7,830 cfs (8.65 ft); Feb. 6 (2:30 p.m.) 1,800 cfs (4.75 ft); Apr. 25 (5 a.m.) 1,570 cfs (4.52 ft); July 11 (9:30 p.m.) 2,580 cfs (5.46 ft); Aug. 14 (4 p.m.) 1,750 cfs (4.70 ft); Aug. 18 (6 a.m.) 3,560 cfs (6.13 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for North Mayo River near Spencer.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 379.29 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--21 years, 2,349 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 39,200 cfs Oct. 16 (gage height, 15.20 ft); minimum, 171 cfs Oct. 9 (gage height, 1.78 ft); minimum daily, 255 cfs Oct. 9.
1934-55: 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 period of no gage-height record, 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 17-20, Dec. 14 to Feb. 6, Mar. 7-23, Apr. 26 to May 24)

Oct. 1 to July 11

July 12 to Sept. 30

1.9	235	4.0	3,200	2.2	530	4.0	3,700
2.0	300	9.0	17,400	2.3	640	6.0	8,800
2.5	650	12.0	27,200	3.0	1,620	10.0	20,600
3.0	1,150	15.0	38,400				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	455	a700	3,060	2,120	1,040	2,260	1,370	1,660	1,130	910	1,020	965
2	480	a800	2,810	1,640	1,160	2,540	1,220	1,640	1,060	855	1,240	1,120
3	445	a900	2,600	1,530	1,360	1,950	1,090	1,600	1,040	770	1,010	1,920
4	355	a1,000	2,370	*1,550	1,240	1,640	1,140	1,780	970	540	895	2,050
5	305	a1,000	2,140	1,380	1,190	2,340	1,170	1,620	890	1,320	885	1,360
6												
7	435	a1,000	2,290	1,380	3,280	8,520	1,230	1,580	715	685	795	1,180
8	365	a900	4,600	1,400	17,800	6,560	1,280	1,600	1,040	1,420	830	1,100
9	370	a800	3,540	1,280	13,000	3,010	1,280	1,220	2,960	635	1,710	960
10	255	a900	3,100	1,200	4,800	2,050	1,180	1,240	3,350	1,160	3,110	990
11	370	a800	4,700	1,020	2,660	1,650	990	1,360	1,360	1,780	1,420	850
12												
13	345	a800	3,920	1,280	2,220	1,460	940	1,340	2,320	2,230	1,140	750
14	*260	a800	3,030	1,430	3,000	1,510	1,370	*1,390	9,080	8,240	1,120	665
15	310	a800	3,420	1,420	1,860	1,700	*2,650	2,640	3,200	8,520	1,230	805
16	355	a700	11,300	1,340	1,360	1,380	11,300	3,820	*1,900	3,250	3,070	*890
17	10,500	a600	9,640	1,260	1,550	1,260	23,500	2,040	1,480	1,930	4,000	890
18												
19	38,000	*a800	4,720	1,100	1,560	1,960	19,100	1,510	1,320	1,560	1,570	800
20	20,600	931	3,510	1,010	1,420	4,280	5,580	1,520	1,250	1,140	4,570	835
21	2,780	2,110	2,700	1,120	1,450	3,580	3,790	1,460	1,100	870	19,000	765
22	1,380	2,250	3,140	1,220	1,310	2,900	2,900	1,440	940	*1,000	7,680	540
23	a1,200	2,810	3,020	1,300	1,100	4,730	2,750	1,340	925	975	2,640	630
24												
25	a1,100	8,520	2,060	1,280	1,000	3,770	2,340	1,340	1,140	1,060	1,590	755
26	a1,000	6,840	1,940	1,250	1,120	*3,600	2,210	1,430	1,070	930	1,180	720
27	a900	3,340	1,640	1,300	1,180	5,080	2,240	3,030	1,180	870	*1,350	735
28	a800	3,170	1,620	1,140	1,510	3,720	820	4,740	3,090	745	1,260	845
29	a700	2,340	1,630	1,340	1,660	2,660	7,120	5,300	1,440	1,070	1,140	760
30												
31	a800	1,880	1,360	1,320	1,560	2,180	7,120	2,560	895	2,830	1,020	730
2	a800	1,920	1,240	1,280	1,240	1,660	3,820	1,660	890	1,190	960	805
3	a900	1,860	1,340	1,440	1,300	1,600	2,780	1,390	900	1,060	890	855
4	a900	1,710	1,440	1,400	-	1,520	2,420	1,300	905	1,180	695	830
5	a900	4,040	2,210	1,140	-----	1,440	2,260	1,010	905	1,260	715	665
6	a900	-----	2,560	1,000	1,360	1,360	-----	1,380	-----	975	920	-----
Total	87,265	57,021	98,590	40,670	74,630	65,870	119,740	58,960	50,505	52,960	70,645	27,985
Mean	2,815	1,901	3,180	1,312	2,665	2,770	3,991	1,902	1,684	1,708	2,279	933
(+)	+27	-71	-20	-73	+96	+158	+246	+17	+36	-60	-4	-68

Adjusted for change in reservoir contents

	Mean	Cfsm	In.
2,842	1,830	3,160	1,239
1.39	0.893	1.54	0.604
1.60	1.00	1.78	0.70
			1.41
			1.65
			2.31
			1.08
			0.94
			0.93
			1.28
			0.47

	Observed	Adjusted
Calendar year 1954:	Max 36,000	Min 245
Water year 1954-55:	Max 36,000	Min 255
	Mean 1,950	Mean 1,926
	Mean 2,260	Mean 2,283
	Cfsm 1.11	Cfsm 1.11
	In. 12.76	In. 12.76
		In. 15.15

Peak discharge (base, 22,000 cfs).--Oct. 16 (11 a.m.) 39,200 cfs (15.20 ft); Apr. 15 (9 p.m.) 25,200 cfs (11.37 ft); Aug. 18 (12:30 p.m.) 22,500 cfs (10.56 ft).

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir.

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

ROANOKE RIVER BASIN

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 1955.

Gage.--Water-stage recorder. Datum of gage is 317.37 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 34,000 cfs Oct. 17 (gage height, 25.40 ft); minimum, 250 cfs Oct. 10 (gage height, 1.90 ft).
1950-55: Maximum discharge, that of Oct. 17, 1954; minimum, 241 cfs Sept. 22, 1954 (gage height, 1.87 ft).

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 by Philpott Reservoir on Smith River (usable capacity, 145,200 acre-ft). Records of water temperatures and sediment loads for the water year 1955 are given in WSP 1400.

Rating table, water year 1954-55, except periods when rate of change in stage was used as a factor (gage height, in feet, and discharge, in cubic feet per second)

1.9	250	17.0	14,300
2.5	500	22.0	24,500
5.0	1,790	25.0	32,500
12.0	7,400		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	465	1,090	2,680	2,180	1,120	2,390	1,850	2,180	1,550	1,020	1,150	1,080
2	525	900	2,040	1,910	1,500	3,480	1,850	1,850	1,350	1,020	1,250	1,300
3	515	1,000	1,790	1,670	1,450	2,840	1,670	1,730	1,250	1,000	1,250	2,180
4	400	1,100	1,610	1,450	1,500	2,460	1,670	1,790	1,200	800	1,050	3,640
5	320	1,350	1,500	1,550	1,400	2,840	1,550	1,790	1,150	1,500	1,000	2,600
6	308	1,250	1,790	1,550	1,910	8,390	1,610	1,670	1,080	1,000	975	1,610
7	400	1,250	3,240	1,500	k13,600	8,850	1,790	1,610	925	1,500	1,020	1,450
8	320	1,020	3,180	1,450	19,600	4,680	1,730	1,550	2,320	1,080	1,610	1,500
9	332	925	2,460	1,400	k7,980	3,400	1,670	1,350	3,400	1,020	2,840	1,200
10	284	1,080	3,640	1,250	4,120	2,760	1,500	1,250	1,970	1,180	2,040	1,150
11	340	1,000	3,480	1,250	3,080	2,460	1,400	1,450	2,520	1,500	1,400	1,000
12	*312	1,050	2,530	1,550	3,560	2,460	1,550	1,500	6,390	4,760	1,300	900
13	280	1,020	2,320	1,610	3,240	2,840	2,680	1,790	4,760	9,220	1,400	850
14	312	975	*3,960	1,500	2,320	2,840	k13,100	3,720	*2,110	5,320	1,920	1,050
15	3,090	850	11,700	1,400	*2,110	2,180	k22,400	2,760	1,790	2,390	5,880	1,000
16	k21,900	750	5,960	1,350	2,250	2,680	26,500	1,970	1,610	1,850	2,530	950
17	*32,200	950	3,560	1,250	2,180	5,000	k13,100	1,550	1,450	1,610	5,220	950
18	*k1,700	1,050	2,760	1,120	2,040	5,000	*4,600	1,610	1,400	1,120	k19,800	875
19	2,180	2,390	2,840	1,300	1,970	4,360	3,580	1,550	1,300	1,050	20,400	850
20	1,550	2,660	3,080	1,400	1,790	5,160	3,080	1,500	1,250	1,150	5,970	675
21	1,450	5,720	2,250	1,400	1,610	5,320	2,840	1,450	1,200	1,120	2,390	800
22	1,350	6,740	2,040	1,400	1,500	4,280	2,680	1,300	1,250	1,150	1,790	825
23	1,200	3,320	1,850	1,550	1,730	5,080	2,530	2,390	1,200	1,050	*1,450	825
24	1,100	2,800	1,670	1,550	1,850	4,680	2,320	3,400	1,990	950	1,550	900
25	975	2,460	1,730	1,450	2,180	3,400	4,280	5,480	2,460	1,220	1,450	975
26	850	1,730	1,550	1,610	2,180	3,080	6,830	3,320	1,730	2,000	1,300	850
27	975	1,730	1,450	1,550	2,110	2,530	4,040	2,320	1,180	1,730	1,180	800
28	925	1,610	1,180	1,550	1,970	2,320	3,000	1,910	1,050	1,200	1,150	975
29	1,100	2,110	1,500	1,610	-----	2,040	2,600	1,730	1,020	1,220	1,020	950
30	1,150	3,000	1,550	1,550	-----	2,040	2,320	1,550	1,020	1,300	900	1,100
31	1,200	-----	2,320	1,250	-----	1,970	-----	1,250	-----	1,450	1,000	-----
Total	90,008	54,670	85,190	46,110	93,650	113,820	142,300	62,270	54,875	55,480	95,185	35,610
Mean	2,903	1,822	2,748	1,487	3,345	3,672	4,743	2,009	1,829	1,790	3,070	1,187
(†)	+27	-71	-20	-73	+96	+158	+246	+17	+36	-60	-4	-68

Adjusted for change in reservoir contents in Philpott Reservoir

Mean	2,930	1,751	2,728	1,414	3,441	3,830	4,989	2,026	1,865	1,730	3,066	1,119
Cfsm	1.15	0.687	1.07	0.555	1.35	1.50	1.96	0.795	0.731	0.678	1.20	0.439
In.	1.33	0.77	1.23	0.64	1.41	1.73	2.19	0.92	0.82	0.78	1.38	0.49

		Observed				Adjusted						
Calendar year 1954:	Max	32,200	Min	265	Mean	2,118	Mean	2,094	Cfsm	0.821	In.	11.15
Water year 1954-55:	Max	32,200	Min	280	Mean	2,546	Mean	2,569	Cfsm	1.01	In.	13.69

Peak discharge (base, 22,000 cfs).--Oct. 17 (3:30 p.m.) 34,000 cfs (25.40 ft); Apr. 16 (4 p.m.) 27,200 cfs (23.08 ft); Aug. 19 (9:30 a.m.) 22,200 cfs (20.98 ft).

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir.

k Computed by using rate of change in stage as a factor.

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 1955.

Gage.--Water-stage recorder and wooden control. Datum of gage is 629.54 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--6 years, 8.99 cfs.

Extremes.--Maximum discharge during year, 932 cfs Oct. 15 (gage height, 6.23 ft), from rating curve extended above 120 cfs on basis of slope-area determinations at gage heights 4.93 and 6.22 ft; minimum, 1.9 cfs Oct. 4-7; minimum gage height, 1.08 ft July 6.

1949-55: Maximum discharge, that of Oct. 15, 1954; minimum, 1.3 cfs Sept. 18, 1954; minimum gage height, that of July 6, 1955.

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

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 16-19, June 9-21, June 29 to July 10, July 14-24, Aug. 18-28, Sept. 16-30)

1.9	1.0	2.9	74
2.0	2.5	3.5	180
2.2	9.1	4.0	270
2.6	38		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	5.1	6.5	5.8	a5.5	15	7.4	6.8	5.1	3.5	a4.2	a6.0
2	2.0	5.1	6.1	6.1	a5.4	11	7.4	6.8	5.1	3.8	a4.5	a9.0
3	2.0	6.1	5.8	*5.8	a5.2	8.8	7.4	6.8	5.1	3.5	a4.0	a15
4	1.9	5.5	5.8	5.8	a5.2	8.8	7.1	6.5	4.8	13	a5.5	a25
5	1.9	5.1	5.8	5.8	a9.0	a30	7.1	6.1	4.8	5.8	a3.5	a20
6	1.9	5.8	7.1	5.8	a15	a100	7.1	5.8	4.5	5.1	a3.5	a15
7	1.9	5.5	5.8	5.5	a30	a70	7.1	5.8	8.1	11	a4.0	a13
8	2.2	5.1	5.8	5.5	a17	a50	6.8	5.8	16	20	a7.0	a 11
9	2.4	*4.5	6.5	5.5	a12	a35	6.8	5.8	15	26	a9.0	a10
10	2.4	4.2	6.5	5.8	a10	a25	6.8	5.8	10	48	a15	a9.0
11	2.2	4.2	6.1	6.1	a10	a20	7.4	*5.8	82	20	a10	a8.0
12	*2.5	4.2	5.8	6.1	a20	a17	8.8	7.1	20	84	a7.0	a7.5
13	2.5	4.2	9.1	6.1	a8.0	a15	9.1	12	7.5	20	a6.0	a7.0
14	2.5	4.2	22	6.1	*a7.0	a15	26	8.4	*6.8	12	7.8	a6.5
15	*208	4.2	12	6.8	6.1	a15	50	7.4	6.1	7.4	20	*a6.0
16	19	4.2	8.8	6.1	6.1	a20	14	6.8	5.8	5.1	3.2	5.5
17	10	4.5	7.8	6.1	6.5	a25	10	6.5	5.1	5.5	148	5.1
18	7.1	6.8	9.8	6.1	6.1	a25	9.1	6.1	4.8	*5.1	110	4.8
19	6.5	8.8	8.4	a6.0	6.1	a25	8.4	5.8	5.5	4.8	26	4.8
20	5.1	18	7.8	a6.0	6.1	a30	8.1	5.5	5.5	4.8	15	4.5
21	4.8	39	7.1	a6.0	5.8	a20	7.8	5.5	*4.0	4.2	8.4	3.8
22	4.5	9.8	6.8	a6.0	5.8	*a16	7.8	8.8	4.5	3.2	9.1	4.2
23	3.8	8.1	6.8	a6.0	8.8	12	7.4	8.4	5.1	3.2	*8.1	5.1
24	3.8	7.4	6.8	a6.0	7.4	10	14	7.8	5.1	5.1	6.1	6.1
25	3.5	6.8	6.5	a6.0	7.8	9.1	14	8.1	6.1	6.1	5.5	6.5
26	3.5	6.1	6.5	a5.5	7.1	8.8	8.8	6.1	5.8	4.2	4.8	5.5
27	3.8	5.8	6.5	a5.5	8.8	7.8	8.1	5.8	4.5	4.5	4.5	4.8
28	4.8	6.1	6.5	a5.5	10	7.8	7.8	5.5	3.5	4.5	3.8	4.5
29	6.5	9.8	6.8	a5.5	-	7.4	7.4	5.5	2.8	a5.1	a4.0	3.5
30	5.5	6.8	6.5	a6.0	-----	7.4	7.1	6.8	3.2	a5.2	a4.5	3.5
31	5.5	-	6.1	a6.0	-----	7.4	-----	5.5	-----	a5.2	a5.0	-----
Total	356.0	221.0	232.2	182.9	247.8	674.3	312.1	207.2	272.5	344.9	475.0	240.2
Mean	10.8	7.37	7.49	5.90	8.85	21.8	10.4	6.88	9.08	11.1	15.3	8.01
Cfsm	1.17	0.801	0.814	0.641	0.962	2.37	1.13	0.728	0.987	1.21	1.66	0.871
In.	1.35	0.89	0.94	0.74	1.00	2.73	1.26	0.84	1.10	1.40	1.91	0.97

Calendar year 1954: Max 208 Min 1.4 Mean 7.67 Cfsm 0.834 In. 11.28

Water year 1954-55: Max 208 Min 1.9 Mean 10.3 Cfsm 1.12 In. 15.13

Peak discharge (base, 150 cfs).--Oct. 15 (7:30 p.m.) 932 cfs (6.23 ft); Mar. 6 (time unknown) 380 cfs (4.54 ft); Apr. 15 (2 a.m.) 203 cfs (3.63 ft); June 11 (11:30 a.m.) 350 cfs (3.82 ft); July 12 (12 m.) 330 cfs (4.28 ft); Aug. 15 (4:30 p.m.) 157 cfs (3.37 ft); Aug. 17 (8 p.m.) 650 cfs (5.62 ft).
* Discharge measurement made on this day.

a Doubtful or no gage-height record; discharge estimated on basis of records for Roanoke River at Altavista and Sandy River near Danville.

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 1955. 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.--26 years (1929-55), 533 cfs.

Extremes.--Maximum discharge during year, 10,100 cfs Aug. 19 (gage height, 23.28 ft); minimum, 28 cfs Oct. 13 (gage height, -0.31 ft); minimum daily, 60 cfs Oct. 10, 13.

1928-55: 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 good except those for period of no gage-height record, which are 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.3	59	9.0	2,080
.5	73	15.0	4,300
1.0	126	19.0	6,400
2.0	280	22.0	8,800
4.0	670		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a100	228	303	271	207	1,820	352	563	236	136	123	310
2	a110	200	389	234	239	2,080	342	378	193	136	172	469
3	a110	235	280	253	258	1,020	354	338	200	132	170	825
4	a100	228	281	236	214	920	281	302	198	133	114	928
5	a80	250	250	252	200	721	323	312	142	137	94	750
6	a70	272	379	214	655	2,490	296	294	179	240	110	344
7	a80	248	341	241	2,180	*3,580	325	272	768	638	242	352
8	a70	214	282	211	2,730	*1,760	299	248	1,150	596	362	320
9	a70	142	444	218	1,290	*857	271	262	340	576	300	328
10	a60	238	690	220	864	792	268	216	348	336	312	141
11	a70	162	570	244	602	721	288	335	625	446	432	230
12	a70	204	350	295	670	486	392	390	971	1,520	412	266
13	*a60	192	594	280	562	542	462	590	*197	3,310	438	*201
14	a70	158	1,210	268	339	378	2,650	952	278	2,350	338	201
15	654	172	*1,890	269	442	494	4,100	430	274	689	1,890	232
16	2,700	172	1,050	169	486	628	3,080	405	196	210	1,130	212
17	6,180	186	752	234	358	591	1,260	300	191	247	1,650	200
18	3,760	219	465	202	364	584	943	298	196	206	8,170	184
19	853	438	630	318	342	672	582	266	152	212	*8,710	376
20	201	922	513	242	352	918	532	252	170	188	*4,090	182
21	174	1,490	351	136	378	688	459	214	190	184	1,010	194
22	298	1,380	351	523	333	691	504	294	210	114	470	150
23	194	970	319	114	376	997	429	559	252	186	951	126
24	197	327	340	293	607	916	356	618	240	136	245	260
25	194	447	306	284	513	644	1,430	603	248	225	306	109
26	182	340	294	217	458	570	2,280	480	256	219	354	226
27	172	280	266	254	454	356	1,240	240	142	166	292	183
28	160	302	278	250	966	437	868	252	178	105	232	194
29	350	580	279	247	-	334	442	440	92	280	273	190
30	322	725	288	234	-----	452	418	222	154	145	250	318
31	224	-	256	210	-----	304	-----	279	-----	128	226	-
Total	17,915	11,921	14,971	7,633	17,339	28,443	25,846	11,406	8,966	14,325	33,848	8,981
Mean	578	397	483	246	619	918	862	368	299	462	1,092	299
Cfs/m	1.05	0.719	0.875	0.446	1.12	1.66	1.56	0.667	0.542	0.837	1.98	0.542
In.	1.21	0.80	1.01	0.51	1.17	1.91	1.74	0.77	0.60	0.96	2.28	0.60
Calendar year 1954: Max	6,160			Min	27		Mean	406	Cfs/m	0.736	In.	10.00
Water year 1954-55: Max	8,710			Min	60		Mean	452	Cfs/m	1.00	In.	13.56

Peak discharge (base, 5,000 cfs).--Oct. 17 (2 p.m.) 6,750 cfs (19.53 ft); Aug. 19 (2 a.m.) 10,100 cfs (23.28 ft).

* Discharge measurement made on this day.

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

ROANOKE RIVER BASIN

107

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 Boston.

Drainage area.--289 sq mi (revised).

Records available.--July 1929 to March 1934, October 1950 to September 1955.

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.--9 years (1929-33, 1950-55), 228 cfs.

Extremes.--Maximum discharge during year, 3,300 cfs Aug. 18 (gage height, 20.57 ft); minimum daily, 2.6 cfs Oct. 1, 11, 12.

1929-34, 1950-55: Maximum discharge, 5,000 cfs (revised) Oct. 3, 1929 (gage height, 21.88 ft, from graph based on gage readings), from rating curve extended above 2,000 cfs; minimum, 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 has been revised to 5,000 cfs Oct. 3, 1929 (gage height, 21.88 ft, from graph based on gage readings), superseding figure published in WSP 697.

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

Revisions.--Revised figures of discharge, in cubic feet per second, for a high-water period in the water year 1930, superseding those published in WSP 697, are given here-with:

1929
Oct. 2..... 3,150
3..... 4,900
4..... 4,200
5..... 2,980

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October 1929.....	18,514	4,900	52	597	2.07	2.39
Water year 1929-30.....	-	4,900	.8	219	.758	10.27

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	40	276	73	107	553	135	162	a40	10	146	42
2	2.7	34	179	72	112	468	130	135	a40	8.2	57	50
3	3.0	34	140	72	106	332	125	115	a40	6.9	34	86
4	3.5	36	115	68	88	269	117	101	a40	5.5	25	297
5	3.5	39	100	*66	70	381	105	94	a45	4.8	21	248
6	3.4	55	309	65	334	1,410	100	84	a50	4.6	19	125
7	3.0	65	680	62	1,500	1,640	105	74	a70	5.7	22	90
8	3.0	59	468	58	1,640	*1,640	100	67	a100	24	98	72
9	2.9	48	355	56	1,780	785	88	63	a80	25	64	59
10	2.7	44	760	55	863	370	82	57	a60	21	30	51
11	2.6	40	660	73	400	289	80	53	a80	123	24	48
12	2.6	38	348	168	700	269	108	*80	a150	624	122	45
13	*2.9	36	465	190	588	318	148	139	a60	1,070	283	43
14	3.3	34	*720	135	318	519	1,300	400	34	1,200	456	*42
15	278	35	1,520	104	*269	318	1,970	203	27	1,300	1,410	38
16	1,300	35	1,870	93	236	496	2,030	115	25	764	880	36
17	1,200	38	1,280	84	203	1,050	1,840	82	24	105	942	33
18	774	36	348	75	179	965	650	67	22	*72	3,090	24
19	120	39	283	74	146	1,030	*340	58	23	54	3,030	20
20	69	317	222	84	130	1,200	262	52	22	44	2,620	48
21	53	1,050	174	80	118	986	210	48	22	40	1,300	44
22	45	1,180	135	94	110	624	283	46	21	32	203	38
23	40	861	119	242	108	553	318	99	20	30	140	35
24	35	311	135	311	107	434	210	196	19	30	115	34
25	30	276	112	311	146	318	714	216	17	182	86	34
26	31	210	92	297	262	276	1,110	269	21	55	73	35
27	26	152	88	236	282	242	622	113	18	30	65	34
28	27	125	89	210	502	196	325	70	16	26	59	33
29	29	229	89	179	-	179	242	56	15	27	53	42
30	46	434	90	152	-----	162	196	a50	13	27	52	49
31	47	-	82	113	-----	146	-----	a45	-----	89	48	-
Total	4,191.7	5,950	12,303	3,952	11,414	18,438	14,043	3,589	1,214	6,039.7	15,567	1,875
Mean	135	198	397	127	408	585	468	109	40.5	195	502	62.5
Cfsm	0.467	0.685	1.37	0.439	1.41	2.06	1.62	0.377	0.140	0.675	1.74	0.216
In.	0.54	0.76	1.58	0.51	1.47	2.38	1.81	0.43	0.16	0.78	2.01	0.24
Calendar year 1954: Max	2,290	Min	0.3	Mean	216	Cfsm	0.747	In.	10.16			
Water year 1954-55: Max	3,090	Min	2.6	Mean	270	Cfsm	0.934	In.	12.67			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Dan River at Paces and Roanoke Creek at Saxe.

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 1955.

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.--8 years, 8,023 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 35,300 cfs Apr. 19, Aug. 19, 20, 21, 22, 23 (gage height, 9.94 ft); minimum, 136 cfs Sept. 30 (gage height, 1.64 ft); minimum daily, 185 cfs Mar. 13.

1947-55: 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 Mar. 13, 1955.

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 recorded 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). Records of chemical analyses for the water year 1955 are given in WSP 1400.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.7	160	3.5	2,870
1.8	210	4.0	4,350
1.9	280	5.0	8,250
2.0	370	7.0	18,400
2.5	970	8.0	23,900
3.0	1,820	10.0	35,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,000	a6,000	10,100	1,120	4,980	6,390	5,790	9,660	6,960	7,210	6,680	11,700
2	1,150	a11,000	10,600	252	5,110	7,250	5,520	10,200	6,860	1,510	6,800	11,700
3	1,630	a9,500	10,200	9,940	4,360	8,440	5,660	8,360	6,670	416	5,710	1,790
4	5,710	a9,500	3,220	9,530	4,380	10,700	6,610	7,250	1,510	396	6,000	224
5	5,670	a9,000	224	9,630	430	4,970	5,620	8,480	2,160	3,870	5,980	2,680
6	4,740	a3,000	10,200	10,200	343	13,900	7,700	7,180	3,700	4,360	997	11,400
7	2,050	a1,300	9,930	10,300	4,980	21,200	5,690	*7,240	3,460	2,880	210	11,600
8	1,750	a7,500	a10,000	1,890	4,820	20,100	5,820	7,180	5,960	2,470	5,220	12,000
9	1,420	a7,000	a9,000	280	4,690	13,500	5,590	9,040	7,520	765	5,700	12,000
10	1,550	a6,000	a8,000	8,990	4,720	14,900	5,560	7,840	5,410	210	4,030	2,190
11	3,280	a4,500	a2,000	8,760	4,820	14,900	5,630	7,570	2,900	4,230	4,950	224
12	3,510	a4,000	a250	8,230	715	3,500	6,210	7,740	8,770	7,320	4,120	5,000
13	5,930	a1,500	a2,000	8,700	625	185	6,640	8,260	10,800	9,360	205	4,280
14	5,460	a900	a11,000	8,690	5,070	13,800	7,740	7,200	11,200	12,500	210	4,180
15	3,860	a3,000	a11,000	1,920	4,360	13,800	22,000	7,060	9,450	15,500	5,800	5,860
16	8,850	a4,500	10,300	1,810	4,380	14,000	29,300	9,360	9,310	9,740	11,900	7,420
17	3,950	3,490	10,300	6,670	4,300	14,100	29,400	8,580	9,550	4,140	12,000	1,840
18	8,410	3,930	3,580	4,870	3,810	14,300	29,300	7,840	1,460	9,240	15,700	224
19	8,230	3,540	2,640	5,580	224	5,010	28,300	8,450	2,140	7,950	31,700	4,720
20	7,980	2,500	10,100	5,220	217	3,690	21,000	7,040	3,260	8,230	33,200	9,760
21	8,250	1,020	10,200	5,120	5,030	5,990	11,700	2,980	5,620	8,710	32,700	7,300
22	7,260	9,580	10,800	1,350	4,400	11,700	12,000	2,260	4,650	8,300	32,500	9,870
23	3,450	9,100	10,400	1,520	5,120	10,800	5,540	7,900	4,500	4,510	30,500	10,100
24	1,330	10,700	2,320	4,840	5,400	11,000	5,480	11,100	2,220	3,430	32,200	4,330
25	8,300	2,970	280	5,330	3,820	11,800	12,000	8,920	2,220	6,880	20,700	224
26	9,840	9,950	280	5,370	492	6,900	12,000	11,000	6,140	7,700	11,800	6,930
27	8,900	5,270	9,800	5,310	217	5,970	14,000	11,200	6,280	4,520	4,650	10,700
28	a9,000	1,330	9,930	5,270	4,520	13,100	15,300	2,290	4,310	6,860	5,050	11,500
29	a9,000	10,100	10,800	1,710	-----	11,900	14,500	2,260	8,600	5,880	12,800	5,840
30	a4,000	10,400	9,740	820	-----	9,330	8,300	3,340	7,320	1,010	11,600	7,100
31	a1,300	-----	5,420	5,290	-----	6,070	-----	5,500	-----	217	11,700	-----
Total	159,740	172,080	224,594	164,912	95,833	323,195	355,900	230,280	170,910	170,314	373,312	194,686
Mean	5,153	5,736	7,245	5,320	3,423	10,430	11,860	7,428	5,697	5,494	12,040	6,490
(†)	+1,545	-555	-192	-1,334	+6,350	+2,884	+1,119	-1,728	-880	-823	+790	-3,721

Adjusted for change in reservoir contents

	Mean	Cfsm	In.
Mean	6,698	5,181	7,053
Cfsm	0.861	0.666	0.907
In.	0.99	0.74	1.05

	Observed				Adjusted			
Calendar year 1954:	Max	14,800	Min	224	Mean	5,462	Mean	5,566
Water year 1954-55:	Max	33,200	Min	185	Mean	7,221	Cfsm	0.715
							In.	9.70
								13.04

Peak discharge (base, 50,000 cfs).--No peak above base.

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott and John H. Kerr Reservoirs. A no gage-height record; discharge estimated on basis of records for station at Roanoke Rapids, N. C.

ROANOKE RIVER BASIN

109

Roanoke River at Roanoke Rapids, N. C.

Location.--Lat 36°28', long 77°38', on right bank 1½ miles downstream from bridge on State Highway 48 at Roanoke Rapids, Halifax County, 2½ miles upstream from Chocoyott Creek, and at mile 133.6.

Drainage area.--8,410 sq mi, approximately.

Records available.--December 1911 to December 1932 (published as "at Old Gaston"), February 1930 to September 1955. 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 1929, 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.--44 years, 8,364 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 43,200 cfs Aug. 19; maximum gage height, 12.83 ft Aug. 19; minimum discharge, 501 cfs Nov. 21 (gage height, 1.33 ft); minimum daily, 610 cfs Dec. 27.

1911-55: Maximum discharge, 261,000 cfs Aug. 18, 1940 (gage height, 39.0 ft, from floodmarks); minimum, 458 cfs Sept. 21, 1932 (gage height, 1.25 ft); minimum daily, 472 cfs Sept. 21, 1932.

Flood in November 1877 at Old Gaston reached a stage about 2 ft lower than flood in August 1940, which was 21.5 ft.

Remarks.--Records good. 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) 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, 1923(M), 1928(M), 1930(M), 1933(M).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Fall between gages used as a factor Aug. 19-25)

1.4	550	5.0	6,500
1.5	625	6.0	9,500
1.7	785	8.0	17,000
2.0	1,050	10.0	27,000
2.5	1,630	12.0	39,000
3.0	2,320	13.0	45,000
4.0	4,100		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,820	1,460	10,700	5,940	5,490	5,480	6,950	9,850	6,070	2,860	4,560	13,100
2	4,310	8,430	10,500	1,760	5,530	8,370	6,380	10,600	7,180	1,610	7,080	12,000
3	1,430	10,500	11,300	1,130	5,660	8,540	6,250	9,640	7,300	1,300	5,000	9,320
4	1,490	9,030	10,600	9,400	4,760	9,580	6,380	8,360	7,290	1,880	4,880	3,790
5	5,560	9,370	3,980	10,300	5,040	10,800	6,500	8,370	1,700	2,400	4,750	4,040
6		5,610	8,910	1,560	10,400	1,520	8,440	6,710	8,680	2,040	2,400	4,750
7		5,000	2,700	9,920	10,800	1,180	22,200	8,000	7,680	4,050	2,840	4,750
8		2,190	1,420	10,600	10,900	6,160	23,100	6,250	7,700	4,090	2,960	9,400
9		1,870	7,500	10,600	2,420	8,060	17,000	6,250	7,700	7,900	2,420	11,700
10		1,410	7,340	9,140	1,270	5,690	14,600	6,000	9,220	6,880	1,560	10,600
11		1,450	6,890	8,020	8,600	5,650	16,400	6,000	8,500	5,730	2,250	2,250
12		3,050	4,130	2,340	9,840	7,080	14,000	6,250	7,980	3,880	2,400	4,880
13		3,880	4,220	1,460	9,680	2,810	4,370	6,950	8,560	10,500	4,400	5,000
14		5,800	1,370	10,000	9,520	1,700	1,690	8,000	9,720	11,700	14,200	4,180
15		5,870	1,050	11,700	9,590	5,760	15,400	12,400	8,000	10,300	13,300	5,000
16		4,690	4,000	11,100	2,560	*4,390	14,700	29,400	8,300	9,920	12,000	5,250
17		7,720	4,520	11,100	2,090	4,340	15,200	31,200	9,390	9,830	10,900	6,950
18		4,360	3,960	10,700	6,100	4,350	16,000	*31,200	9,140	9,070	4,960	23,600
19		8,510	4,310	4,370	5,880	4,410	12,900	31,800	7,670	1,900	8,060	40,100
20		8,440	4,100	3,120	5,810	1,540	6,670	28,200	8,120	2,320	7,260	36,700
21		8,350	2,930	10,300	5,930	769	5,280	13,300	7,490	3,780	9,040	35,800
22		8,590	1,790	10,500	5,780	4,360	8,170	12,500	3,150	4,870	9,500	34,700
23		7,810	2,400	10,500	2,000	4,980	12,500	12,400	2,680	5,120	6,940	34,100
24		3,820	9,770	10,900	2,000	5,610	12,000	6,250	9,140	5,280	4,580	34,400
25		1,760	11,400	3,000	5,460	6,460	12,000	7,240	12,900	2,040	3,680	28,900
26		8,080	3,870	1,260	5,940	4,500	12,000	13,600	10,600	1,900	6,830	13,900
27		9,970	9,960	610	5,970	1,610	7,500	12,300	11,700	1,970	7,090	11,500
28		9,380	6,200	9,700	5,930	1,280	8,380	16,800	10,800	2,400	5,280	8,900
29		9,240	2,390	10,800	5,860	-	12,300	15,600	2,720	2,720	7,900	8,130
30		9,490	10,400	10,800	2,110	-	13,200	11,800	2,560	2,720	7,390	9,500
31		4,310	-----	1,340	-----	-----	9,750	-----	3,460	-----	4,670	9,500
Total	169,250	174,320	250,980	182,310	118,699	358,520	378,860	250,350	162,430	174,720	415,570	227,470
Mean	5,460	5,611	8,096	5,881	4,239	11,570	12,630	8,076	5,414	5,636	13,410	7,582
(†)	+1,545	-555	-192	-1,334	+6,350	+2,884	+1,119	-1,728	-137	-457	+959	-3,863
Observed												
Adjusted												
Calendar year 1954:	Max	16,000	Min	610	Mean	5,910	Mean	6,014	Cfsm	0.715	In.	9.71
Water year 1954-55:	Max	40,100	Min	610	Mean	7,845	Mean	8,190	Cfsm	0.974	In.	13.22

* 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.).

Roanoke River near Scotland Neck, N. C.

Location--Lat 36°12', long 77°23', on right bank 10 ft upstream from bridge on U. S. Highway 258, 1 mile downstream from tributary on right, 3 miles downstream from Bridgers Creek, 5½ miles north of Scotland Neck, Halifax County, and at mile 102.5.

Drainage area--8,700 sq mi, approximately.

Records available--July 1896 to May 1903 (published as "at Neal"), August 1940 to September 1955.

Gage--Water-stage recorder. Datum of gage is 5.77 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. July 1896 to May 1903 chain gage at site 8.9 miles downstream at different datum. Aug. 15 to Oct. 18, 1940, wire-weight gage at present site and datum. Auxiliary water-stage recorder 8.9 miles downstream; Aug. 15, 1940, to Jan. 13, 1941, auxiliary staff gage at same site.

Average discharge--21 years (1896-1902, 1940-55), 8,862 cfs (adjusted for storage).

Extremes--Maximum discharge during year, 31,900 cfs Aug. 23; maximum gage height, 30.39 ft Aug. 25; minimum discharge, 900 cfs Feb. 22; minimum daily, 1,310 cfs July 4. 1896-1903, 1940-55: Maximum discharge, 260,000 cfs Aug. 19, 1940; maximum gage height, 41.98 ft Aug. 19, 1940; minimum discharge, 750 cfs Nov. 10, 1952. Maximum stage, observed during period June 1930 to July 1940, 35.1 ft Jan. 24, 1936 (from unpublished U. S. Weather Bureau records adjusted to present datum). The following data on major floods (adjusted to present datum) were furnished by North Carolina Highway and Public Works Commission: 1877, about 37.8 ft; March 1912, 36.8 ft; 1919, 34.9 ft; 1924, 32.9 ft.

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), by 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).

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,500	4,090	10,800	6,830	3,050	3,030	8,160	11,200	5,160	2,900	4,610	13,000
2	4,950	4,580	11,400	4,020	5,310	47,800	6,930	10,600	7,110	2,570	6,360	15,300
3	3,890	9,990	11,500	2,510	5,700	a9,500	6,290	11,200	7,540	1,590	5,560	12,100
4	1,640	9,910	11,400	5,800	5,180	a9,500	6,310	9,660	7,490	1,310	4,990	7,760
5	2,540	9,850	6,540	10,200	5,120	a9,500	6,670	8,570	4,110	1,960	4,940	5,190
6	5,400	9,540	3,980	10,300	3,940	8,810	6,520	9,090	2,260	2,320	4,820	7,610
7	5,330	5,830	6,470	10,800	2,110	15,300	7,920	8,510	2,980	2,450	4,810	9,280
8	3,910	3,230	10,800	11,100	3,290	20,800	6,900	7,640	4,630	2,790	4,850	9,770
9	2,420	3,920	11,100	5,150	6,220	20,400	6,400	7,760	5,480	3,160	4,610	12,100
10	1,910	7,360	10,400	2,990	5,970	17,400	6,080	9,550	8,780	2,280	4,530	12,800
11	1,460	7,080	8,390	5,400	5,720	17,000	6,020	8,820	6,450	1,830	4,070	6,250
12	1,400	5,300	5,150	9,660	6,550	17,000	8,190	8,580	4,220	2,730	5,610	3,610
13	2,960	4,330	2,930	9,830	5,250	10,500	6,660	8,630	7,120	2,680	7,680	5,350
14	4,670	3,510	6,220	9,730	3,160	5,540	7,630	9,760	11,800	9,580	6,910	4,610
15	5,990	1,750	11,700	9,770	3,380	9,640	9,340	9,070	12,100	14,400	6,300	4,570
16	5,510	1,470	11,700	5,350	4,870	14,800	19,300	8,290	10,700	14,500	6,020	5,860
17	6,070	a4,100	11,500	3,240	4,520	15,100	23,800	9,900	10,400	12,800	6,400	6,280
18	6,120	a4,300	11,600	4,190	4,410	15,700	25,200	9,690	10,200	7,470	17,100	4,660
19	7,070	a4,300	6,560	5,780	4,380	16,000	*26,300	9,330	5,010	7,950	23,800	4,850
20	8,630	a4,300	4,170	5,690	3,710	10,400	27,300	8,550	2,590	*8,250	27,400	8,670
21	8,550	a3,800	8,500	5,750	1,790	7,220	25,500	8,300	2,930	8,900	29,200	11,200
22	8,840	a3,600	10,800	5,790	1,640	6,980	20,100	4,840	4,260	9,560	30,600	10,400
23	8,360	a5,900	10,900	4,200	4,720	11,600	17,300	3,590	4,980	8,380	31,200	11,200
24	5,890	a10,200	11,100	2,590	5,430	12,700	11,100	6,930	5,170	5,370	31,200	11,400
25	3,850	a9,500	5,250	5,510	6,480	12,500	9,040	12,200	3,700	4,430	31,300	8,870
26	4,450	a6,800	3,370	5,580	5,240	12,700	13,300	12,000	2,290	5,780	28,900	8,600
27	9,370	a9,000	1,730	5,970	3,990	9,520	13,000	12,100	2,100	7,570	23,000	7,580
28	10,000	a7,800	5,000	5,870	2,240	7,580	15,000	12,700	2,180	5,630	17,700	9,590
29	9,560	a4,600	10,900	5,820	-	11,900	16,300	5,440	2,540	6,580	13,500	10,000
30	9,910	a7,400	11,100	3,920	-----	12,400	15,600	3,520	2,680	8,440	12,000	10,100
31	6,630	-----	10,800	2,570	-----	11,900	-----	2,210	-----	5,900	11,200	-----
Total	172,400	177,340	263,760	189,510	123,370	370,520	382,160	268,930	168,940	182,060	421,170	257,560
Mean	5,561	5,911	8,508	6,113	4,406	11,950	12,740	8,675	5,631	5,873	13,590	8,585
(†)	+1,545	-555	-192	-1,334	+6,350	+2,884	+1,119	-1,728	-137	-457	+959	-3,883

Observed

Adjusted

Calendar year 1954: Max 18,000 Min 1,400 Mean 6,315
 Water year 1954-55: Max 31,300 Min 1,310 Mean 8,158
 Mean 6,419 Cfs m 0.738 In. 10.03
 Mean 8,503 Cfs m 0.977 In. 13.26

* 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 at Roanoke Rapids.

Tar River near Tar River, N. C.

Location.--Lat 36°12', long 78°34', on right bank 50 ft downstream from bridge on State Highway 96, 1½ miles upstream from Fishing Creek, 2½ 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 1955.

Gage.--Water-stage recorder and Parshall flume. Datum of gage is 287.04 ft above mean sea level, datum of 1929.

Average discharge.--16 years, 154 cfs.

Extremes.--Maximum discharge during year, 13,100 cfs Aug. 18 (gage height, 18.07 ft); minimum, 0.07 cfs Oct. 14.

1939-55: Maximum discharge, that of Aug. 18, 1955; minimum, that of Oct. 14, 1954.

Remarks.--Records fair. 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).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 10, Aug. 20 to Sept. 30				Jan. 11 to Aug. 19			
1.18	0.10	1.7	14	1.4	2.8	4.0	545
1.2	.18	2.0	28	1.5	5.6	5.0	895
1.3	1.0	2.4	48	1.7	14	7.0	1,830
1.4	2.8	2.6	72	2.0	31	9.0	3,070
1.5	5.6	2.8	120	2.4	58	12.0	5,640
Note.--Same as following table above 2.8 ft.				2.6	76	15.0	8,820
				2.8	120	17.0	11,500
				3.0	210		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	2.6	32	17	45	336	64	68	23	6.0	71	48
2	.3	<u>2.2</u>	28	18	45	278	61	60	19	5.6	40	116
3	.3	2.2	22	18	42	170	60	*52	16	4.8	25	768
4	.3	2.4	17	18	37	372	57	45	15	4.2	15	290
5	.3	5.0	<u>14</u>	17	<u>32</u>	434	51	42	14	3.9	10	120
6	.2	12	129	16	179	2,000	50	38	13	3.4	8.8	79
7	.18	10	160	16	<u>1,790</u>	1,000	52	34	13	4.2	7.6	60
8	.18	6.4	*81	15	638	339	*50	30	<u>103</u>	5.0	6.4	46
9	.18	5.0	62	15	230	205	44	27	76	5.0	4.8	37
10	.14	4.5	111	<u>14</u>	*136	148	42	25	44	4.8	<u>4.5</u>	32
11	.14	3.9	105	23	828	120	41	23	29	6.4	4.8	30
12	.14	3.6	64	68	1,520	192	48	22	77	400	11	30
13	.14	3.4	52	81	318	210	57	24	68	<u>1,030</u>	62	26
14	<u>.10</u>	3.4	686	62	165	140	787	162	37	<u>394</u>	203	22
15	46	3.1	370	46	136	120	*1,580	99	*23	86	460	21
16	<u>540</u>	3.1	152	38	112	290	424	66	17	52	102	20
17	*85	*3.1	86	31	100	554	210	48	13	36	1,400	18
18	30	3.1	68	27	89	374	128	36	12	19	<u>10,500</u>	17
19	16	4.4	63	26	79	582	106	28	11	18	3,080	<u>16</u>
20	11	35	51	27	73	699	87	25	11	13		<u>55</u>
21	6.8	29	40	26	68	339	76	22	12	10	99	50
22	5.0	25	34	33	64	254	*215	<u>21</u>	11	8.8	70	32
23	3.9	19	30	82	62	*230	210	277	12	7.6	129	26
24	3.4	16	28	<u>112</u>	143	152	100	199	10	6.8	53	23
25	3.1	15	25	<u>140</u>	612	117	524	<u>382</u>	8.4	6.0	41	32
26	2.6	15	22	114	254	103	546	165	7.6	5.0	37	28
27	2.2	13	21	89	218	89	195	78	7.6	5.0	33	22
28	1.9	12	20	76	522	81	114	55	7.6	11	30	20
29	2.2	<u>58</u>	*20	69	-	75	89	39	7.2	71	27	18
30	2.8	*48	20	62	-----	71	76	33	<u>6.4</u>	80	26	17
31	3.1	-----	18	50	-----	68	-----	29	-----	167	25	-----
Total	768.00	368.4	2,631	1,446	8,597	10,142	6,144	2,254	723.8	2,479.5	16,908.9	2,119
Mean	24.8	12.3	84.9	46.6	307	327	205	72.7	24.1	80.0	542	70.8
Cfsm	0.154	0.076	0.527	0.289	1.91	2.03	1.27	0.452	0.150	0.497	3.37	0.438
In.	0.18	0.09	0.61	0.33	1.99	2.34	1.42	0.52	0.17	0.57	3.88	0.49
Calendar year 1954: Max	3,340			Min	0.10	Mean	135	Cfsm	0.839	In.	11.42	
Water year 1954-55: Max	10,500			Min	0.10	Mean	149	Cfsm	0.925	In.	12.59	

Peak discharge (base, 2,000 cfs).--Feb. 7 (2 p.m.) 2,050 cfs (7.45 ft); Feb. 12 (3 a.m.) 2,340 cfs (7.86 ft); Mar. 6 (11 a.m.) 2,340 cfs (7.87 ft); Apr. 15 (6 a.m.) 2,100 cfs (7.50 ft); Aug. 18 (2 p.m.) 13,100 cfs (18.07 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 1955.

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.--27 years, 747 cfs.

Extremes.--Maximum discharge during year, 10,400 cfs Aug. 22 (gage height, 16.64 ft); minimum, 7.4 cfs Oct. 12 (gage height, 1.52 ft); minimum daily, 15 cfs Oct. 10, 1928-55: 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 fair. 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 table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second) (Shifting-control method used July 18-30)

1.6	11	4.0	745
1.7	18	5.0	1,200
1.8	28	7.0	2,200
2.0	53	9.0	3,400
2.3	115	12.0	5,600
2.6	192	16.0	9,700
3.0	325	17.0	11,000
3.5	525		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	82	445	216	345	1,290	421	445	337	108	655	520
2	26	113	345	210	337	1,200	413	413	251	109	549	1,070
3	44	104	257	213	345	975	397	381	204	86	271	2,610
4	18	86	232	219	325	815	397	353	186	67	207	3,250
5	34	99	207	210	295	950	581	321	159	80	164	2,400
6	40	133	251	207	288	1,660	373	314	148	90	128	1,370
7	36	225	505	204	991	2,870	397	278	158	86	104	905
8	24	232	835	195	2,200	3,750	405	254	381	138	90	705
9	20	175	615	184	2,990	4,100	389	254	537	493	78	553
10	15	143	497	178	2,520	1,750	357	238	553	525	84	449
11	*19	128	525	210	975	925	345	232	357	431	212	589
12	*18	120	590	281	1,020	770	345	207	284	1,180	1,180	397
13	19	104	465	353	2,310	860	377	228	284	2,420	940	445
14	32	106	425	369	3,400	1,020	590	248	278	2,420	903	385
15	25	104	875	333	*2,510	860	1,540	285	251	2,020	829	325
16	29	95	1,520	281	815	745	2,530	453	201	674	1,250	295
17	655	108	905	261	680	815	2,930	341	184	325	2,730	274
18	895	104	565	258	635	1,250	1,330	281	159	*222	4,780	251
19	341	111	473	238	585	1,290	770	281	156	175	5,900	1,150
20	175	451	433	235	513	1,470	635	232	175	151	6,240	1,990
21	141	1,160	585	254	473	1,770	553	213	164	123	8,450	1,050
22	111	770	333	254	433	1,470	505	222	146	104	10,300	751
23	99	457	281	357	421	1,020	465	238	136	97	8,040	568
24	86	333	257	445	417	860	615	287	195	88	1,400	459
25	67	274	278	565	717	725	590	759	350	164	856	515
26	82	257	251	615	1,600	615	922	680	497	113	561	1,160
27	80	228	228	615	1,470	557	1,670	655	271	95	421	854
28	80	210	225	557	998	513	1,040	389	181	78	353	625
29	63	216	222	497	-	481	635	274	146	82	306	490
30	72	*261	222	441	-----	457	517	274	123	105	274	*422
31	68		219	397		437	-----	365	-----	517	268	
Total	3,454	6,989	15,866	9,852	30,588	58,270	22,834	10,375	7,412	13,347	57,903	26,627
Mean	111	233	447	317	1,092	1,235	761	335	247	431	1,868	868
Cfsm	0.158	0.332	0.638	0.452	1.56	1.76	1.09	0.478	0.352	0.615	2.66	1.27
In.	0.18	0.37	0.74	0.52	1.62	2.03	1.21	0.55	0.39	0.71	3.07	1.41
Calendar year 1954: Max			8,500	Min	15	Mean	701	Cfsm	1.00	In.	13.56	
Water year 1954-55: Max			10,300	Min	15	Mean	682	Cfsm	0.994	In.	12.80	

Peak discharge (base, 4,000 cfs).--Mar. 9 (1 p.m.) 4,170 cfs (10.09 ft); Aug. 22 (2 p.m.) 10,400 cfs (16.64 ft); Sept. 3 (9 p.m.) 4,680 cfs (10.77 ft).

* Discharge measurement made on this day.

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 1955.

Gage.--Wire-weight gage read twice daily. Altitude of gage is 100 ft, revised (from topographic map). Prior to July 14, 1953, staff gage at same site and datum.

Average discharge.--5 years, 57.0 cfs.

Extremes.--Maximum discharge during year, 2,190 cfs Sept. 4 (gage height, 14.12 ft); minimum, 0.03 cfs Oct. 11, 12, 13.

1950-55: 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.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

(Shifting-control method used Mar. 2-15, Apr. 4-18, May 24 to June 25, July 18 to Aug. 11, Aug. 31, Sept. 1)

0.9	0.03	3.0	62
1.0	.4	4.0	115
1.1	1.4	5.0	190
1.2	3.2	6.0	300
1.4	8.0	8.0	580
1.7	16	10.0	980
2.0	25	12.0	1,500
2.5	42	15.0	1,800

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.06	0.04	1.6	5.0	*22	54	18	20	6.5	9.5	9.8	38
2	.06	.06	1.4	5.5	20	46	18	16	5.5	6.5	7.5	46
3	.06	.06	1.2	*5.5	18	*42	18	15	4.6	4.6	6.8	200
4	.04	.04	.9	5.5	17	36	18	11	4.6	4.4	6.8	*1,520
5	.04	.10	.9	5.5	16	35	17	9.2	4.6	3.7	6.2	1,480
6	.04	.06	5.0	5.5	17	48	17	7.5	3.9	3.2	4.6	607
7	.04	.06	7.0	5.0	*46	67	20	6.8	4.1	3.2	3.7	322
8	.04	.06	6.0	5.0	58	92	24	6.0	*25	6.5	2.8	187
9	.04	.06	6.0	4.6	62	123	24	*4.8	42	12	1.7	122
10	.04	.04	6.0	4.6	77	122	24	3.9	67	24	4.8	82
11	*.03	.04	5.8	*7.2	72	92	*20	3.2	40	16	15	67
12	.03	.04	5.0	10	54	58	19	3.7	16	20	256	62
13	.03	.04	5.0	11	40	42	18	4.6	12	*225	274	*58
14	.04	.04	8.5	10	36	40	30	5.0	9.8	288	388	54
15	.17	.04	11	8.0	*32	38	50	6.2	8.5	230	322	46
16	.06	.06	10	7.8	28	40	87	5.5	7.0	129	181	36
17	.04	.08	8.8	7.5	26	42	129	5.0	5.8	44	327	34
18	.04	.10	8.2	7.0	26	46	129	5.8	4.8	*19	664	32
19	.06	.06	8.0	8.0	25	54	82	5.0	8.8	13	*1,390	260
20	.04	.5	7.5	8.5	24	62	40	4.6	14	9.5	890	608
21	.04	4.1	7.0	8.5	24	67	25	4.1	30	8.0	594	1,150
22	.04	3.2	6.2	11	22	72	19	5.0	32	6.5	598	*666
23	.04	2.1	5.5	16	20	62	16	24	18	5.8	429	308
24	.04	1.4	5.5	20	20	48	13	25	18	5.5	246	170
25	.04	1.3	5.0	25	35	58	19	18	25	4.1	464	115
26	.06	1.2	5.0	28	40	30	34	14	88	6.5	460	109
27	.06	.9	5.0	30	50	25	50	15	143	6.0	281	115
28	.06	.9	5.0	30	62	*24	44	12	174	4.6	131	143
29	.06	1.3	5.0	30	-	20	28	9.0	103	4.4	64	122
30	.06	*1.3	5.0	28	-----	19	18	8.2	32	4.6	38	*82
31	.04	-	5.0	25	-----	18	-----	7.2	-----	5.3	*35	-----
Total	1.54	19.28	173.0	388.2	999	1,610	1,068	288.3	957.5	1,132.4	8,103.7	8,841
Mean	0.050	0.643	5.58	12.5	35.3	51.9	35.6	9.30	31.9	36.5	261	295
Cfsm	0.00077	0.0099	0.086	0.193	0.545	0.801	0.549	0.144	0.492	0.563	4.03	4.55
In.	0.0009	0.01	0.10	0.22	0.57	0.92	0.61	0.17	0.55	0.65	4.65	5.07

Calendar year 1954: Max 1,800 Min 0.02 Mean 64.7 Cfsm 0.998 In. 13.55
 Water year 1954-55: Max 1,520 Min 0.03 Mean 64.6 Cfsm 0.997 In. 13.52

* Discharge measurement made on this day.

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 1955 in reports of Geological Survey. 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.--32 years (1923-55), 496 cfs.

Extremes.--Maximum discharge during year, 3,850 cfs Aug. 20, 21 (gage height, 13.95 ft); minimum, 14 cfs Oct. 16 (gage height, 0.14 ft).

1923-55: 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 good. 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. Figures of discharge for periods listed above in Records available as unreliable are subject to considerable error because of indefinite stage-discharge relation and doubtful gage-height record.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

(Shifting-control method used Nov. 22 to Feb. 24; rate of change in stage used as a factor Feb. 7, 25, Mar. 6, 10, 11, Apr. 14, 15, June 8, 24-28, July 11-15, Aug. 12, 13, 17, 18, 22, 23, Sept. 2, 3, 5, 6, 19, 20, 22-24)

Oct. 1-15

Oct. 16 to Sept. 30

0.1	10	0.1	10	7.0	910
.2	19	.5	49	10.0	1,530
.3	29	1.0	95	12.0	2,140
.4	39	2.0	187	13.0	2,710
		4.0	426	14.0	3,850

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	33	110	118	169	874	246	236	187	108	55	155
2	21	40	137	118	160	787	241	236	178	87	72	439
3	25	42	128	*118	160	602	236	226	123	81	81	791
4	26	46	112	112	160	*527	236	221	99	76	76	1,170
5	25	48	99	112	160	625	226	197	83	74	71	1,150
6	24	42	113	110	156	1,830	221	174	84	66	59	1,050
7	23	41	128	108	576	2,240	220	160	91	64	50	703
8	23	50	183	107	928	2,060	226	146	297	74	47	516
9	22	72	207	103	946	1,740	221	*137	710	216	40	451
10	21	72	192	104	761	1,150	212	128	470	324	37	322
11	20	67	187	112	534	720	*207	123	235	429	35	246
12	19	60	202	132	398	512	207	118	160	1,560	109	231
13	18	55	192	178	477	454	212	118	142	1,180	707	236
14	17	53	187	192	685	426	460	151	160	*796	688	231
15	20	54	237	178	*634	384	1,040	174	137	436	880	207
16	14	57	330	156	528	370	1,120	207	111	226	626	182
17	15	54	310	142	343	412	852	192	93	178	1,040	164
18	15	49	252	152	298	497	573	160	80	146	2,620	156
19	18	53	212	128	280	668	*398	142	80	*110	3,490	564
20	39	69	192	132	252	892	324	123	99	64	3,740	2,610
21	49	72	182	128	231	910	286	114	118	62	3,600	3,460
22	54	156	164	132	*216	770	262	114	128	62	2,160	2,870
23	54	216	146	164	207	587	246	128	109	58	739	1,230
24	51	216	132	231	212	468	226	*146	190	54	452	660
25	47	171	128	262	594	398	274	174	522	50	562	462
26	44	128	132	280	874	343	426	216	1,460	44	264	416
27	41	113	128	262	787	317	572	221	1,140	37	212	398
28	40	109	123	236	728	*292	468	164	452	37	182	345
29	39	113	118	212	-	268	356	123	209	37	164	292
30	33	*102	123	192	-----	257	280	114	137	36	146	*257
31	33	-	118	182	-----	252	-----	110	-----	38	*142	-
Total	908	2,453	5,204	4,873	12,454	22,632	11,054	4,993	8,084	6,810	23,166	21,964
Mean	29.3	81.8	168	157	445	730	368	161	269	220	747	732
Cfsm	0.056	0.157	0.322	0.301	0.854	1.40	0.706	0.309	0.626	0.422	1.43	1.40
In.	0.06	0.18	0.37	0.35	0.89	1.62	0.79	0.36	0.58	0.49	1.65	1.57

Calendar year 1954: Max 6,340 Min 10

Mean 468

Cfsm 0.898

In. 12.18

Water year 1954-55: Max 8,790 Min 14

Mean 341

Cfsm 0.655

In. 8.91

* 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 1955. 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.--28 years, 2,233 cfs.

Extremes.--Maximum discharge during year, 16,600 cfs Aug. 25 (gage height, 23.54 ft); minimum, 47 cfs Oct. 14 (gage height, 0.65 ft).

1896-1900, 1931-55: 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).

Remarks.--Records good except those computed from once-daily staff-gage readings, which are poor. Some diurnal fluctuation at low flow caused by mills above station. Town of Henderson diverted an average of 2.3 cfs during the water year out of basin above station. Town of Tarboro diverts about 1 cfs for municipal supply.

Revisions (water years).--WSP 1172: Drainage area. WSP 1273: 1899, 1900, 1932-33.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

(Rate of change in stage used as a factor Oct. 19, Nov. 22, Feb. 8, 9, 11, 12, 14, 17, Apr. 15, 16, 19, 20, 29, June 8, Aug. 12, 13, 17-20, 26-29, Sept. 2-5, 8-11, 19-21, 26-28)

0.6	42	6.0	1,910
.7	52	8.0	2,920
.8	63	10.0	4,080
1.0	90	13.0	5,980
1.5	188	16.0	8,050
2.0	314	19.0	10,800
3.0	636	24.0	17,300
4.0	1,030		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	140	380	478	910	g2,590	1,250	1,290	548	g1,070	430	1,380
2	122	130	495	478	890	g2,700	1,160	1,120	565	g790	692	1,910
3	90	163	600	478	810	g2,810	1,120	1,120	565	g600	790	5,630
4	60	113	530	459	790	g2,590	1,070	1,030	495	g478	565	10,100
5	53	210	478	459	790	g2,280	1,010	950	403	g430	400	12,800
6	122	206	478	462	750	g2,760	990	850	354	g430	386	14,000
7	87	186	548	449	890	g3,960	970	750	314	g342	342	13,600
8	64	171	565	456	1,510	g5,190	1,010	673	756	g264	314	10,500
9	60	286	870	418	2,820	g6,250	970	600	1,290	g386	278	7,460
10	86	292	950	430	3,780	g6,990	950	600	1,590	g530	236	5,320
11	80	281	830	462	3,970	g7,190	870	495	1,730	g2,000	256	3,790
12	*59	252	790	530	2,560	g5,980	870	462	1,550	g2,810	1,210	2,920
13	50	239	850	512	2,090	g4,860	870	459	1,070	g3,200	5,120	2,280
14	49	234	930	636	2,960	g3,420	990	440	790	g4,860	6,330	2,000
15	68	234	850	673	3,840	g2,860	1,360	478	711	g6,450	6,100	1,820
16	87	199	970	692	4,080	g2,590	2,660	436	636	g6,320	5,360	1,550
17	86	239	1,590	618	2,500	g2,280	3,720	565	548	g5,060	5,260	1,330
18	73	192	1,510	600	1,770	g2,180	4,260	636	406	g2,920	7,060	1,200
19	617	206	1,200	582	1,550	g2,180	3,040	565	412	*g1,950	9,060	2,940
20	582	215	950	582	g1,420	g2,330	1,990	495	400	1,380	10,400	7,740
21	311	264	870	548	g1,330	g3,140	1,770	452	371	970	12,000	10,100
22	188	840	830	565	g1,290	g3,780	1,510	446	478	673	13,400	11,000
23	201	930	770	673	g1,120	g3,720	1,420	462	495	512	14,500	11,000
24	161	750	692	770	g1,030	g3,080	1,200	530	600	433	15,800	10,200
25	182	600	618	910	g1,250	g2,590	1,200	673	654	354	16,400	9,300
26	175	530	636	1,070	g1,590	g2,230	1,290	1,010	g1,910	348	13,700	7,360
27	175	512	565	1,160	g2,090	g1,820	1,590	1,160	g3,480	462	8,870	5,880
28	161	440	548	1,200	g2,860	g1,680	2,380	1,160	g3,600	308	5,130	4,300
29	178	400	512	1,160	-	g1,590	2,030	910	g2,700	278	2,880	3,250
30	161	*436	462	1,120	-	1,420	1,550	692	g1,680	582	2,030	2,590
31	126	-	462	1,010	-	1,290	-	582	-	548	*1,600	-
Total	4,593	9,890	23,329	20,640	53,040	100,330	47,070	22,091	31,101	48,338	166,899	185,250
Mean	148	330	753	666	1,894	3,256	1,569	713	1,037	1,559	5,384	6,175
Cfsm	0.069	0.154	0.352	0.311	0.885	1.51	0.733	0.333	0.485	0.729	2.52	2.89
In.	0.08	0.17	0.41	0.36	0.92	1.74	0.82	0.38	0.54	0.84	2.90	3.22
Calendar year 1954: Max	23,300			Min 49		Mean 2,143		Cfsm 1.00		In. 13.58		
Water year 1954-55: Max	16,400			Min 49		Mean 1,952		Cfsm 0.912		In. 12.38		

* Discharge measurement made on this day.

g Computed from graph based on once-daily staff-gage readings.

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, 1 1/4 miles upstream from mouth, and 2 1/4 miles northeast of Washington, Beaufort County.

Drainage area.--About 15 sq mi.

Records available.--January 1950 to September 1955.

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.--5 years, 6.49 cfs.

Extremes.--Maximum discharge during year, 548 cfs Sept. 19 (gage height, 14.77 ft, from floodmark), from rating curve extended above 330 cfs by logarithmic plotting; minimum, 0.7 cfs on several days in November, December, and May.

1950-55: Maximum discharge, that of Sept. 19, 1955; 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. Natural runoff affected by ditches and canals above station.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 10

Aug. 11 to Sept. 30

5.0	0.5	5.7	12	6.0	16	11.0	208
5.1	.9	6.0	22	7.0	37	13.0	359
5.3	2.1	7.0	42	8.0	66	14.0	455
5.5	5.0	8.0	77	9.0	101		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.8	0.7	1.0	1.0	1.4	1.0	0.8	1.6	1.7	6.4	21
2	.8	.8	.7	1.0	1.0	1.4	1.0	.8	1.5	1.4	5.0	38
3	.8	.8	.7	1.0	*.9	1.4	1.0	.8	1.4	1.2	3.9	93
4	.8	.8	.7	1.0	.9	1.4	1.0	.8	1.2	1.2	8.7	*125
5	.8	.9	.7	1.0	.9	1.5	1.0	.8	1.2	1.1	5.2	119
6	.9	.9	2.6	1.0	1.0	2.7	1.0	.8	1.0	1.0	4.3	92
7	.9	.8	.9	1.0	2.0	3.1	1.0	.8	8.2	35	3.1	65
8	.8	.8	.9	1.0	1.5	2.2	.9	.8	4.7	55	2.3	*51
9	.8	.8	.9	1.0	1.4	1.6	.9	.8	*2.4	33	1.6	42
10	.8	.8	.8	1.0	1.2	1.3	.9	.8	1.8	29	3.5	38
11	.8	.8	.8	1.2	1.3	1.2	.9	.7	1.6	26	26	50
12	.8	*.7	.8	.9	1.1	1.1	.9	.8	1.5	27	*258	42
13	.8	.7	.9	.9	1.0	1.0	1.2	1.5	1.3	42	*124	34
14	.8	.7	1.0	.9	1.0	1.1	1.1	1.0	1.2	39	104	29
15	2.9	.7	.9	.9	1.0	1.1	1.0	.8	1.2	35	68	*26
16	.9	.7	.9	.9	1.0	1.2	1.0	.9	1.2	31	60	22
17	.9	.7	.8	.9	1.0	*1.1	1.0	.8	1.2	26	164	19
18	.9	.7	1.4	.8	1.0	1.1	1.0	.8	1.1	24	104	91
19	.9	.7	1.0	1.4	1.0	1.5	1.0	.8	1.2	19	84	391
20	.9	.9	.9	1.2	1.0	1.8	.9	.7	5.2	10	65	216
21	.9	.8	.9	1.0	1.0	1.8	1.2	.7	3.4	6.8	46	*106
22	.9	.7	.8	1.6	1.0	1.5	1.3	1.7	2.3	5.4	39	82
23	.9	.7	.8	1.2	1.2	1.3	1.0	1.5	1.8	4.3	34	98
24	.9	.7	.8	3.4	1.4	1.2	1.0	1.9	1.5	3.4	44	91
25	.9	.7	.8	1.8	1.2	1.2	.9	1.8	7.5	3.0	46	89
26	.8	.7	.8	1.4	1.2	1.2	.9	1.7	3.4	2.6	42	73
27	.8	.7	.8	1.2	1.2	1.1	.9	1.4	5.6	2.1	34	60
28	.8	.7	.8	1.0	1.2	1.0	.8	1.2	3.9	1.9	29	54
29	.8	.7	.8	1.0	-	1.0	.8	1.2	2.6	2.9	25	45
30	.8	.7	.9	1.0	-----	1.0	.8	1.2	2.0	3.0	23	40
31	.8	-----	.9	1.0	-----	1.0	-----	1.4	-----	17	*20	-----
Total	28.1	22.6	26.3	35.6	31.6	43.5	29.3	32.5	107.3	493.0	1,493.2	2,269
Mean	0.91	0.75	0.91	1.15	1.13	1.40	0.98	1.05	3.58	15.9	47.8	75.6
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954: Max	80			Min	0.7	Mean	6.14	Cfsm	-	In.	-	
Water year 1954-55: Max	391			Min	0.7	Mean	12.6	Cfsm	-	In.	-	

Peak discharge (base, 120 cfs).--July 7 (9:30 a.m.) 186 cfs (9.97 ft); Aug. 12 (5:30 p.m.) 302 cfs (12.31 ft); Aug. 14 (6 a.m.) 142 cfs (9.88 ft); Aug. 17 (12 m.) 271 cfs (11.92 ft); Sept. 3 (9 p.m.) 190 cfs (10.69 ft); Sept. 5 (12 m.) 154 cfs (10.11 ft); Sept. 19 (6 p.m.) 548 cfs (14.77 ft).

* Discharge measurement made on this day.

Eno River at Hillsboro, N. C.

Location.--Lat 36°04', long 79°08', 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 1955 (fragmentary prior to April 1930).

Gage.--Water-stage recorder and V-notch 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.--25 years (1930-55), 63.7 cfs.

Extremes.--Maximum discharge during year, 3,530 cfs Aug. 17 (gage height, 15.60 ft); minimum, 0.1 cfs Oct. 6-14.
1927-55: 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 poor. Diversion of about 0.25 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, 1932, 1933-34(M), 1938(M).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-5		Oct. 6 to Sept. 30			
0.9	0	0.95	0.1	2.1	33
1.0	1.3	1.0	.3	2.5	63
		1.1	.8	3.0	111
		1.2	1.7	4.0	254
		1.3	3.1	6.0	637
		1.5	7.3	8.0	1,030
		1.8	16	10.0	1,430

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	2.3	27	14	22	65	27	24	14	5.0	22	223
2	.8	2.8	21	16	22	60	26	22	13	4.2	12	818
3	.5	4.2	17	16	22	46	26	21	12	4.0	8.9	251
4	.2	3.5	15	15	20	49	25	20	12	4.0	6.5	129
5	*.2	11	15	15	17	49	24	20	11	3.6	11	67
6	.1	16	174	15	332	52	24	*18	11	3.5	7.8	49
7	.1	10	73	14	752	72	27	17	11	43	5.6	38
8	.1	6.5	*42	13	*119	46	24	17	14	13	4.8	30
9	.1	5.4	36	13	*71	39	22	18	15	18	4.4	26
10	.1	4.6	82	13	57	34	21	15	13	18	5.2	24
11	.1	4.0	45	54	194	38	22	15	13	28	6.0	24
12	.1	3.8	33	61	189	91	25	14	14	24	12	21
13	.1	3.5	141	38	71	74	32	19	12	308	14	18
14	*.1	5.6	459	25	55	60	709	27	*10	48	22	17
15	396	*4.4	106	22	49	57	*332	21	9.2	21	51	17
16	238	3.5	59	20	44	72	108	17	8.6	15	21	16
17	*21	3.5	43	18	40	103	69	15	8.1	12	1,280	15
18	9.5	*3.3	37	17	36	75	55	14	7.8	9.5	1,080	14
19	5.6	4.2	36	18	32	105	47	14	8.1	8.4	88	14
20	3.6	331	29	18	30	123	41	13	9.2	7.3	47	17
21	2.9	156	24	16	27	77	38	12	9.2	7.0	32	16
22	2.5	44	21	20	26	72	42	83	7.8	6.5	28	14
23	2.3	26	*20	57	26	62	36	450	6.8	6.8	24	14
24	2.1	24	19	49	70	*47	33	78	6.5	6.3	19	14
25	2.1	25	17	57	238	44	114	78	6.5	6.0	16	29
26	*1.7	20	15	46	82	41	67	40	8.9	5.8	16	19
27	1.6	15	15	40	65	36	44	25	9.7	5.4	14	16
28	1.6	15	*15	36	77	33	37	21	7.3	4.8	13	14
29	2.1	88	16	31	-	31	32	18	6.3	26	13	14
30	1.9	48	16	26	-----	30	27	18	5.6	35	12	13
31	1.9	-	15	23	-----	27	-----	16	-----	28	12	-
Total	699.9	894.1	1,683	834	2,785	1,810	2,154	1,198	300.6	735.1	2,877.2	1,994
Mean	22.8	29.8	54.3	26.9	99.5	58.4	71.8	38.6	10.0	23.7	92.8	66.5
Cfs/m	0.340	0.448	0.817	0.405	1.50	0.878	1.08	0.580	0.150	0.356	1.40	1.00
In.	0.39	0.50	0.94	0.47	1.56	1.01	1.20	0.67	0.17	0.41	1.61	1.12

Calendar year 1954: Max 763 Min 0.1 Mean 39.2 Cfs/m 0.589 In. 7.98
Water year 1954-55: Max 1,280 Min 0.1 Mean 49.2 Cfs/m 0.740 In. 10.05

Peak discharge (base, 1,500 cfs).--Feb. 7 (1 a.m.) 1,710 cfs (11.24 ft); Apr. 14 (4 p.m.) 1,520 cfs (10.36 ft); Aug. 17 (9:30 p.m.) 3,530 cfs (15.60 ft); Sept. 2 (3:30 p.m.) 1,980 cfs (12.12 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 1955.

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 and at datum 0.58 ft lower.

Average discharge.--30 years, 143 cfs.

Extremes.--Maximum discharge during year, 15,300 cfs Aug. 18 (gage height, 11.60 ft); minimum, 0.5 cfs Oct. 9-12 (gage height, 0.76 ft).

1925-55: 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. 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 table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.7	0.2	2.5	341
.8	.8	3.0	580
.9	2.3	3.5	970
1.0	4.9	4.0	1,220
1.2	13	5.0	2,100
1.4	28	6.0	3,300
1.6	51	7.0	4,750
1.8	90	8.0	6,500
2.0	145	9.0	8,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	2.3	38	21	36	208	58	56	29	9.4	63	53
2	.9	2.5	26	20	36	189	54	50	24	8.1	39	132
3	.8	2.8	21	21	37	115	54	46	23	7.4	30	136
4	.8	2.3	18	21	33	223	53	44	23	7.1	25	155
5	.7	4.0	16	19	28	623	48	41	18	6.7	24	83
6	*.6	3.5	131	19	398	1,860	47	*39	20	6.3	18	65
7	.6	4.0	134	18	1,420	594	50	36	20	16	17	56
8	.6	7.1	51	18	286	238	48	35	36	16	16	48
9	.5	8.1	46	16	*142	158	42	34	53	9.0	17	44
10	.5	9.0	131	17	100	118	41	32	36	90	16	38
11	.5	8.5	75	39	397	102	41	29	31	451	16	37
12	.5	6.3	46	136	597	124	46	29	51	582	18	39
13	.6	6.0	135	85	165	313	54	48	39	4,480	24	36
14	.9	6.0	958	47	105	152	2,060	164	23	350	275	33
15	323	5.6	250	36	92	130	845	68	20	124	719	33
16	570	5.3	110	33	83	392	305	47	20	81	98	31
17	45	5.3	68	30	72	553	168	38	17	56	3,340	29
18	22	*4.9	54	27	65	296	133	35	16	44	*6,970	29
19	13	4.9	54	28	56	464	110	33	16	38	374	28
20	11	93	48	29	51	495	90	29	15	34	168	36
21	8.1	359	39	27	48	246	81	27	15	31	112	48
22	7.8	80	33	30	46	234	309	30	17	27	88	38
23	6.7	39	29	122	46	219	145	489	15	24	139	33
24	6.0	27	30	95	100	133	92	164	14	30	77	32
25	5.3	25	28	115	423	108	368	406	13	27	60	31
26	4.6	25	25	88	165	98	256	102	12	24	54	32
27	3.7	23	23	68	154	93	124	58	11	22	50	33
28	3.0	17	*22	80	314	75	90	43	11	22	46	34
29	3.2	44	24	51	---	68	75	38	11	37	47	30
30	3.0	77	24	46	---	65	63	36	10	30	44	30
31	2.5	---	22	36	---	60	---	33	---	181	43	---
Total	1,047.4	907.4	2,709	1,400	5,485	8,736	5,950	2,357	659	6,851.0	13,027	1,482
Mean	33.8	30.2	87.4	45.2	196	282	198	76.0	22.0	221	420	49.4
Cfsm	0.225	0.201	0.583	0.301	1.31	1.98	1.32	0.507	0.147	1.47	2.80	0.329
In.	0.26	0.22	0.67	0.35	1.36	2.17	1.48	0.58	0.16	1.70	3.23	0.37

Calendar year 1954: Max 2,970 Min 0.5 Mean 91.9 Cfsm 0.613 In. 8.31
Water year 1954-55: Max 6,970 Min 0.5 Mean 139 Cfsm 0.927 In. 12.55

Peak discharge (base, 4,500 cfs).--July 13 (3 p.m.) 7,900 cfs (8.67 ft); Aug. 18 (3 a.m.) 15,300 cfs (11.60 ft).

* Discharge measurement made on this day.

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 1955. 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.--30 years, 4.31 cfs.

Extremes.--Maximum discharge during year, 540 cfs Aug. 17 (gage height, 4.48 ft), from rating curve extended above 320 cfs on basis of slope-area determination of peak flow and computation of peak flow over dam at gage height 4.83 ft; no flow for several days in October.

1925-55: 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 period of no gage-height record, which are poor.

Revisions (water years).--WSP 1233: 1926-40, 1941-42(M), 1946-47(M), 1948-50(P).

WSP 1333: 1931.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.0	0	1.6	8.0
.1	.01	2.0	14
.2	.07	2.3	28
.3	.17	2.6	50
.4	.30	3.0	95
.6	.73	3.2	125
.8	1.38	3.4	160
1.0	2.42	3.7	230
1.3	4.75	4.0	324

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.14	0.78	0.68	1.05	4.84	2.12	2.18	0.78	0.17	1.24	3.00
2	0	.18	.70	.81	1.18	3.79	2.12	2.00	.73	.15	.60	6.1
3	0	.44	.60	.75	1.08	3.15	2.12	1.80	.68	.13	.53	3.47
4	0	.35	.53	.73	.90	7.2	1.90	1.70	.68	.10	.53	2.30
5	0	1.22	.57	.73	.87	21	1.90	1.55	.60	.13	.39	1.75
6	0	.75	4.50	.73	22	60	2.12	1.34	.56	.11	.35	1.50
7	0	.46	1.70	.68	25	12	2.18	1.22	1.22	11	.29	1.30
8	0	.39	1.11	.63	6.5	6.6	2.06	1.18	2.46	2.66	.26	1.11
9	0	.37	1.18	.63	3.79	4.84	1.75	1.05	1.50	1.08	.58	.96
10	0	.30	2.12	.66	2.80	3.87	1.75	1.02	.93	11	.34	.90
11	0	.29	1.26	2.37	20	3.47	1.90	.96	3.26	21	1.22	.90
12	0	.29	1.02	1.85	11	3.56	2.36	.99	3.34	9.7	2.77	.87
13	0	.30	3.51	1.34	4.75	8.6	3.31	2.96	1.05	52	1.36	.78
14	0	.30	9.4	1.05	3.55	4.84	47	3.13	.81	6.1	.90	.78
15	13	.30	3.23	.99	3.15	4.83	17	1.70	.68	2.73	1.21	.73
16	2.36	.30	1.85	.96	2.60	9.6	8.1	1.30	.66	1.75	1.00	.70
17	.44	.32	1.38	.87	2.42	8.5	5.3	1.22	.56	*1.50	a60	.63
18	.25	.32	1.30	.84	2.06	9.7	4.39	1.05	.53	*1.02	a60	.60
19	.18	.53	1.22	.96	1.85	12	3.71	.99	.70	.81	a8	1.14
20	.17	.66	1.02	.93	1.75	9.5	3.01	.90	.73	.73	a4	2.30
21	.16	1.37	.90	.87	1.65	6.8	2.73	.84	.50	.68	a2	.84
22	.15	.70	.84	1.18	1.65	5.8	4.84	3.23	.41	.60	a1.5	.78
23	.13	.58	.81	2.12	1.65	4.03	2.94	13	.34	.50	a2	.87
24	.12	.75	.84	1.70	9.8	3.55	2.94	3.48	.41	.53	a1.3	.90
25	.12	.73	.73	2.06	9.6	3.23	17	2.66	.34	.53	a1.1	1.15
26	.11	.58	.68	1.65	4.93	3.01	7.6	1.70	.35	.44	a1.0	1.02
27	.11	.48	.75	1.46	6.1	2.60	4.75	1.22	.30	.39	a1.0	.78
28	.09	.58	.73	1.34	5.6	2.49	3.63	1.08	.25	.34	a1.0	.78
29	.17	2.30	.75	1.26	-----	2.42	2.94	1.05	.21	.67	1.05	.73
30	.26	1.05	.75	1.22	-----	2.24	2.48	1.22	.20	2.73	1.02	1.09
31	.18	-----	.68	1.05	-----	2.18	-----	.93	-----	1.87	.87	-----
Total	18.00	17.33	47.42	35.10	159.28	240.23	167.95	60.65	25.75	132.87	249.41	40.76
Mean	0.561	0.578	1.53	1.13	5.69	7.75	5.60	1.96	0.858	4.29	8.05	1.36
Cfsm	0.118	0.118	0.312	0.231	1.16	1.58	1.14	0.400	0.175	0.875	1.64	0.278
In.	0.14	0.13	0.36	0.27	1.21	1.82	1.27	0.46	0.20	1.01	1.89	0.31

Calendar year 1954: Max 110 Min 0 Mean 3.14 Cfsm 0.641 In. 8.71
Water year 1954-55: Max 150 Min 0 Mean 3.27 Cfsm 0.667 In. 9.07

Peak discharge (base, 160 cfs).--Mar. 6 (1 a.m.) 225 cfs (3.68 ft); Aug. 17 (about 8 p.m.) 540 cfs (4.48 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and records for Flat River at Bahama.

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 1955.

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.--28 years, 156 cfs.

Extremes.--Maximum discharge during year, 14,900 cfs Aug. 18 (gage height, 17.26 ft); minimum, 2.9 cfs Oct. 4-6 (gage height, 0.65 ft); minimum daily, 2.9 cfs Oct. 5, 6.
1927-55: 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 13.60, 14.60, 16.70 and 19.50 ft; no flow Sept. 3-14, 1938 (result of construction work upstream).

Remarks.--Records fair except those for periods of no gage-height record, which are poor. Considerable regulation since 1926 by Lake Michie (usable capacity, 12,610 acre-ft) above station. An average of 13.0 cfs was diverted above station for Durham municipal water supply. About 6.6 cfs was returned as sewage to Neuse River 3 miles upstream from Northside gage.

Revisions (water years).--WSP 1333: 1928-30, 1932(M), 1934, 1935-39(M), 1944.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.6	1.9	2.0	160
.7	4.0	3.0	398
.8	7.5	4.0	720
.9	12	6.0	1,560
1.0	19	8.0	2,550
1.2	36	10.0	3,900
1.4	58	12.0	5,800
1.7	102	14.0	8,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	12	11	52	71	215	60	75	26	9.8	12	9.8
2	11	12	11	30	58	283	26	43	17	9.8	12	11
3	10	12	11	71	68	278	12	11	7.5	9.8	12	82
4	8.2	12	11	78	68	278	12	12	8.0	9.8	12	152
5	2.9	12	11	78	62	299	12	20	8.0	9.8	12	158
6	2.9	12	11	82	92	1,960	29	12	8.0	9.8	12	73
7	3.3	12	11	12	847	799	48	12	8.0	10	13	45
8	3.3	12	11	12	446	411	48	12	8.0	9.8	13	59
9	3.3	12	11	12	255	336	47	12	8.4	9.8	13	86
10	3.3	12	11	12	*243	306	34	12	32	9.8	13	10
11	3.3	12	11	12	311	235	12	12	54	9.8	13	10
12	3.3	12	12	12	611	190	22	12	52	310	155	10
13	3.3	12	12	13	369	184	56	12	8.4	4,740	90	11
14	5.5	12	12	12	367	182	1,250	12	8.4	4,200	13	10
15	27	12	12	12	299	185	1,490	12	8.4	a220	513	10
16	62	12	12	12	233	230	482	38	8.9	a220	321	10
17	*87	12	12	12	200	399	384	52	8.9	a90	2,460	10
18	109	12	11	12	188	381	346	52	8.9	*89	8,480	11
19	105	12	12	12	63	431	227	52	8.9	89	663	18
20	106	12	12	12	52	584	190	94	8.9	14	312	50
21	85	12	68	12	68	398	197	85	8.9	12	231	50
22	77	12	168	12	50	340	198	86	8.9	12	134	11
23	77	12	166	12	64	370	192	261	9.4	12	171	10
24	74	12	161	45	101	253	182	261	9.4	12	95	10
25	83	12	50	84	140	188	209	305	9.4	12	a50	28
26	79	12	36	79	122	186	302	313	9.4	12	a50	50
27	73	12	64	81	63	182	257	166	9.8	12	a50	51
28	85	12	84	77	108	132	211	115	9.8	12	a50	50
29	70	11	*83	57	-	64	125	83	9.8	12	50	11
30	13	11	63	70	-----	47	61	65	9.8	12	10	9.8
31	13	-----	59	83	-----	64	-----	52	-----	12	9.8	-----
Total	1,296.4	358	1,230	1,232	5,619	10,390	6,711	2,361	401.2	7,212.0	14,044.8	1,116.6
Mean	41.8	11.9	39.7	39.7	201	335	224	76.2	13.4	233	453	37.2
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954:	Max 2,400			Min 2.9		Mean 89.7		Cfsm -		In. -		
Water year 1954-55:	Max 8,480			Min 2.9		Mean 142		Cfsm -		In. -		

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of tailrace readings at Durham municipal dam 900 ft upstream.

Neuse River near Northside, N. C.

Location--Lat 36°02'07", long 78°44'59", on right bank 25 ft upstream from Fish Dam Bridge (bridge relocated), 1½ miles downstream from Rocky Creek, 2½ miles downstream from Seaboard Air Line Railroad bridge, and 2½ miles south of Northside, Granville County.

Drainage area--526 sq mi.

Records available--July 1927 to September 1955.

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--28 years, 530 cfs.

Extremes--Maximum discharge during year, 13,200 cfs Aug. 19 (gage height, 24.08 ft); minimum daily, 10 cfs Oct. 11, 12.

1927-55: 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 fair except those for period of indefinite stage-discharge relation, those for period of doubtful gage-height record, and those for period 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.

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 table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

(Shifting-control method used Oct. 18 to Nov. 20, Feb. 10-11, Apr. 20-24, June 18 to July 11, July 18, 19; fall used as a factor Oct. 16, 17, Dec. 15, Feb. 8-10, 12-14, 26, Mar. 7, 8, Apr. 16, 17, May 24, July 15, Aug. 19)

1.0	9	8.0	1,290
1.2	21	10.0	1,880
1.5	46	13.0	2,860
2.0	98	16.0	4,060
2.5	164	19.0	6,010
3.0	235	22.0	9,300
4.0	390	23.0	11,000
6.0	770		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e13	35	210	127	185	665	192	185	110	38	161	84
2	e13	35	133	120	164	686	178	192	82	35	102	360
3	e13	43	111	123	170	585	153	*133	71	31	*78	1,640
4	e12	46	99	146	164	605	142	124	62	27	67	1,090
5	e12	100	21	147	163	625	139	119	60	27	65	542
6	e12	136	389	144	296	1,680	135	118	57	*27	57	342
7	e11	69	740	142	2,850	2,500	158	106	58	26	53	192
8	e11	55	*346	126	3,700	1,180	164	103	65	64	54	171
9	e11	50	206	90	1,730	665	153	98	77	87	56	168
10	e11	44	258	85	*702	529	143	97	72	66	56	144
11	e10	41	318	104	1,320	493	*124	96	87	163	55	100
12	e10	36	199	206	3,660	432	127	94	111	319	73	97
13	e13	33	161	235	2,520	605	150	94	110	1,370	275	93
14	e15	32	1,010	161	1,110	529	739	128	66	2,950	91	86
15	e110	31	1,230	133	707	493	3,290	147	*58	1,560	746	82
16	*1,680	31	460	118	565	565	3,340	118	55	388	611	78
17	629	*33	265	109	475	920	1,370	128	51	177	1,060	75
18	235	34	192	105	416	920	686	126	48	*151	6,580	73
19	192	40	185	105	326	1,070	529	120	46	137	*10,000	71
20	168	55	164	109	235	1,580	407	118	48	330	a4,200	99
21	146	498	144	113	213	1,130	*374	149	54	d340	a2,200	128
22	120	458	243	120	220	795	407	127	49	d220	a1,200	110
23	99	185	*235	206	206	686	441	825	46	d160	465	79
24	97	132	242	295	284	605	374	975	46	d240	265	74
25	91	111	206	398	1,730	424	578	585	45	d100	178	188
26	*94	106	131	374	1,140	390	1,090	565	44	57	170	*272
27	93	103	118	302	565	350	627	334	41	55	160	156
28	88	93	137	265	645	326	432	220	41	54	132	123
29	102	207	*165	220	-	228	350	150	42	52	*122	110
30	88	*334	140	206	-----	192	220	144	41	54	113	82
31	42	-	152	192	-----	192	-----	119	-----	325	90	-
Total	4,241	3,206	8,660	5,326	26,461	22,645	17,212	6,637	1,843	9,630	29,635	6,909
Mean	137	107	279	172	945	730	574	214	61.4	311	956	230
Cfsm	0.260	0.203	0.530	0.327	1.80	1.39	1.09	0.407	0.117	0.591	1.82	0.437
In.	0.30	0.23	0.61	0.58	1.87	1.60	1.22	0.47	0.13	0.68	2.10	0.49
Calendar year 1954: Max	6,580			Min 10			Mean 362		Cfsm 0.688	In. 9.35		
Water year 1954-55: Max	10,000			Min 10			Mean 390		Cfsm 0.741	In. 10.08		

Peak discharge (base, 4,500 cfs)--Aug. 19 (3 a.m.) 13,200 cfs (24.08 ft).

* Discharge measurement made on this day.

a No gage-height record at auxiliary gage; discharge estimated on basis of gage-height record at base gage and backwater rating curves.

b Doubtful gage-height record; discharge computed from reconstructed gage-height graph based on recorded graph and records for nearby stations.

c Stage-discharge relation indefinite; discharge estimated on basis of records for nearby stations and Durham sewage outfall.

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 1955.

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.--28 years, 1,207 cfs.

Extremes.--Maximum discharge during year, 11,500 cfs Aug. 19 (gage height, 14.59 ft); minimum, 49 cfs Oct. 11 (gage height, 0.89 ft).

1927-55: 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.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 8

Mar. 9 to Sept. 30

0.9	51	1.0	93	5.0	2,430
1.5	226	1.1	119	9.0	5,770
2.0	468	1.5	246	11.0	7,650
2.5	770	2.0	466	14.0	10,800
		2.5	770	15.0	12,000
		3.0	1,090		

Note.--Same as following table above 2.5 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*98	206	*600	338	*588	1,380	*481	518	*318	*106	*217	4,440
2	86	*186	552	338	588	1,380	481	438	254	111	408	5,620
3	78	159	409	357	582	1,280	470	402	221	103	279	6,800
4	70	151	334	338	528	1,150	438	392	190	109	349	10,700
5	70	186	288	334	486	1,080	397	323	168	119	224	7,410
6	73	301	638	348	582	1,180	387	292	141	106	180	2,430
7	75	329	1,590	352	3,530	1,840	408	279	150	109	150	1,460
8	56	310	1,420	338	5,310	2,940	423	262	203	197	127	960
9	56	250	960	319	4,510	2,540	423	239	210	197	133	716
10	54	206	818	297	4,420	1,420	408	242	177	235	150	640
11	51	186	830	348	2,520	1,020	387	235	184	379	142	645
12	54	183	758	480	2,700	925	387	224	194	488	508	529
13	56	174	642	504	4,080	925	382	232	224	*535	664	438
14	*62	162	691	564	4,590	1,120	783	287	246	1,210	513	387
15	260	154	1,420	480	3,920	1,180	2,120	283	*221	2,530	535	362
16	1,720	168	2,010	404	1,680	1,080	3,240	300	177	2,660	573	337
17	1,750	165	1,220	362	1,220	1,150	3,820	305	147	906	3,690	310
18	1,340	171	782	334	1,080	1,530	3,510	271	130	413	8,880	292
19	522	235	654	338	925	1,820	1,530	266	133	266	11,200	438
20	348	421	558	367	800	2,010	1,050	258	222	246	9,110	601
21	301	460	498	362	666	2,290	812	246	254	332	7,740	454
22	258	516	444	378	606	2,050	710	305	180	235	8,180	397
23	236	806	415	558	588	1,550	663	387	153	168	7,860	397
24	209	552	510	788	570	1,280	680	642	203	127	4,310	372
25	199	363	498	990	1,400	1,120	698	1,380	187	122	1,010	433
26	202	319	468	1,150	2,720	860	925	812	197	153	617	990
27	199	268	368	1,120	2,440	752	1,480	776	182	133	470	830
28	189	266	357	1,050	1,520	680	1,150	578	141	114	408	584
29	202	373	329	925	-	640	812	413	127	114	362	475
30	238	399	357	770	-----	578	645	572	111	190	323	413
31	219	-	367	642	-----	518	-----	470	-----	231	554	-----
Total	9,333	8,685	21,595	16,273	55,149	41,368	30,080	12,629	5,625	12,944	69,846	50,860
Mean	301	290	697	525	1,970	1,334	1,003	407	188	418	2,253	1,695
Cfsm	0.264	0.254	0.611	0.461	1.73	1.17	0.880	0.357	0.165	0.367	1.98	1.49
In.	0.30	0.28	0.70	0.53	1.80	1.35	0.98	0.41	0.18	0.42	2.28	1.66
Calendar year 1954: Max	13,100				Min 51	Mean 991		Cfsm 0.669	In. 11.78			
Water year 1954-55: Max	11,200				Min 51	Mean 916		Cfsm 0.804	In. 10.89			

Peak discharge (base, 7,100 cfs).--Aug. 19 (1 p.m.) 11,500 cfs (14.59 ft); Sept. 4 (2 p.m.) 11,500 cfs (14.36 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, 3 $\frac{1}{4}$ miles downstream from county line, and 9 $\frac{1}{4}$ miles southwest of Clayton, Johnston County.

Drainage area.--80.7 sq mi.

Records available.--November 1939 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 177 ft (by barometer).

Average discharge.--16 years, 87.9 cfs.

Extremes.--Maximum discharge during year, 5,400 cfs Sept. 4 (gage height, 13.14 ft); no flow Oct. 11-13.
1939-55: Maximum discharge, that of Sept. 4, 1955; no flow Oct. 11-13, 1954.

Remarks.--Records fair.

Revisions (water years).--WSP 952: 1940(M), 1941. WSP 1233: 1943(M), 1945, 1949.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-6, Jan. 31 to Feb. 6)

Oct. 1 to Dec. 6				Dec. 7 to Sept. 3				Sept. 4-30	
0.12	0	1.0	11	0.4	3.0	5.0	320	2.0	46
.2	.2	1.2	17	.6	5.5	6.0	435	3.0	123
.3	.4	1.6	33	.8	8.8	7.0	603	4.0	220
.4	1.0	2.0	55	1.0	14	8.0	860	Note.--Same as preceding table above 4.0 ft.	
.5	1.7	2.6	98	1.5	33	9.0	1,270		
.6	2.8	3.2	147	2.0	56	10.0	1,900		
.8	6.0	4.0	220	3.0	130	12.0	3,800		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*0.1	5.5	*36	32	*77	*72	*45	26	*31	*6.8	*121	*1,160
2	.1	*5.8	29	32	89	66	44	*24	17	5.4	44	1,270
3	.1	5.7	25	*34	106	57	45	22	11	4.8	27	2,740
4	.1	6.9	22	33	89	55	44	20	8.6	5.0	20	*2,740
5	.1	12	22	32	68	57	41	20	7.0	7.6	18	944
6	.1	16	94	31	86	57	41	18	6.4	17	12	449
7	.1	21	170	31	296	82	48	14	6.4	8.6	8.6	286
8	.1	15	133	29	340	84	45	11	6.2	6.4	6.6	190
9	.1	12	72	28	340	66	39	10	6.2	6.0	5.5	150
10	.1	10	66	28	180	55	36	9.9	6.1	31	4.8	132
11	0	9.9	64	44	126	50	36	9.0	6.1	37	5.1	170
12	0	9.6	53	68	138	56	37	8.6	6.0	59	31	141
13	0	9.4	45	59	138	64	57	9.2	5.8	*202	108	109
14	.1	9.4	64	45	102	72	274	12	5.4	126	65	92
15	11	9.4	83	39	92	82	350	15	4.7	39	50	79
16	137	11	70	37	86	86	350	15	4.1	26	27	71
17	165	13	52	35	82	220	204	11	3.8	20	285	63
18	76	14	47	33	86	215	102	9.9	3.7	14	*1,240	56
19	20	*17	48	36	84	188	80	8.8	4.5	11	947	108
20	13	34	46	46	76	201	68	7.9	9.5	11	394	195
21	11	45	41	51	68	170	53	7.4	7.7	*15	133	160
22	9.2	50	38	58	64	130	46	13	6.2	15	82	100
23	8.0	36	36	94	62	110	41	26	5.5	12	70	79
24	7.1	27	36	118	62	83	37	23	6.4	7.9	85	73
25	6.4	25	35	122	81	70	37	16	15	8.8	58	76
26	*6.0	23	33	126	98	66	40	12	39	8.3	47	132
27	5.8	19	33	126	81	60	35	9.2	37	7.4	40	112
28	5.3	19	33	138	75	52	33	7.5	23	8.1	36	82
29	5.7	31	34	134	-	49	31	7.0	14	7.7	33	67
30	6.2	47	35	110	-----	48	28	20	9.7	13	31	59
31	5.7	-	34	89	46	-----	42	-----	74	74	-	-
Total	499.5	568.6	1,629	1,918	3,272	2,769	2,367	464.4	323.0	820.8	4,106.6	13,085
Mean	16.1	19.0	52.5	61.9	117	89.3	78.9	15.0	10.8	26.5	132	436
Cfsm	0.200	0.235	0.651	0.767	1.45	1.11	0.978	0.186	0.134	0.328	1.64	5.40
In.	0.23	0.26	0.75	0.88	1.51	1.28	1.09	0.21	0.15	0.38	1.89	6.03

Calendar year 1954: Max 2,520 Min 0 Mean 87.2 Cfsm 1.08 In. 14.66
Water year 1954-55: Max 3,740 Min 0 Mean 87.2 Cfsm 1.08 In. 14.66

Peak discharge (base, 600 cfs).--Aug. 18 (6 p.m.) 1,760 cfs (9.81 ft); Sept. 1 (5 p.m.) 1,380 cfs (9.23 ft); Sept. 4 (2 a.m.) 5,400 cfs (13.14 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 1955.

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.--25 years, 238 cfs.

Extremes.--Maximum discharge during year, 3,350 cfs Sept. 5 (gage height, 12.39 ft); minimum, 1.8 cfs Oct. 11, 12.

1930-55: 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. 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 18-26, Aug. 29)

Oct. 1-14		Oct. 15 to Aug. 20		Aug. 20 to Sept. 30	
0.55	2.0	0.5	1.6	2.0	120
.5	2.6	.6	2.6	2.5	170
.7	3.9	.7	3.9	3.0	220
		.8	6.1	4.0	339
		1.0	15	6.0	670
		1.2	29	9.0	1,250
		1.4	50	11.0	1,800
		1.7	89	12.0	2,950
				12.3	3,250

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	12	*53	60	*180	200	97	85	35	51	25	*608
2	3.6	9.2	76	64	175	200	92	63	51	40	27	1,370
3	3.2	8.0	57	48	165	175	88	58	*45	34	32	2,170
4	3.0	7.3	65	53	145	*165	74	49	39	33	34	*2,750
5	3.6	13	49	65	140	155	81	43	34	29	33	3,220
6	3.9	12	65	72	155	145	78	45	*27	25	31	2,870
7	3.5	12	79	53	*261	145	*83	39	26	22	28	*2,060
8	2.9	10	91	49	363	155	81	34	32	27	27	1,180
9	2.6	*10	119	49	395	160	77	31	36	27	27	670
10	2.2	10	107	42	395	145	76	28	31	38	25	474
11	1.9	10	117	50	435	140	70	*33	27	*43	28	376
12	2.0	14	110	50	405	150	72	29	64	42	194	309
13	2.7	16	91	83	310	135	74	27	72	154	525	264
14	*2.8	16	117	81	256	125	102	26	57	*435	525	226
15	3.6	19	114	82	240	*140	182	30	39	483	527	171
16	3.9	26	115	98	215	145	274	27	35	300	396	155
17	3.0	23	101	74	205	205	306	32	32	160	837	125
18	2.5	29	108	*79	185	225	294	36	29	97	*1,740	113
19	2.9	53	120	*70	170	220	263	29	30	*64	2,180	594
20	4.8	49	*101	81	165	240	202	24	34	43	2,780	1,720
21	12	34	106	91	155	250	155	23	29	34	2,610	*1,520
22	16	43	101	82	155	250	128	40	29	28	2,020	932
23	14	44	90	103	145	225	104	70	30	28	*1,170	584
24	14	102	69	127	140	195	84	38	30	27	1,470	444
25	14	140	65	165	140	165	77	50	29	26	1,430	339
26	*14	129	61	180	160	145	*72	45	30	23	1,000	369
27	13	108	58	185	165	128	65	35	66	*21	550	399
28	14	84	68	185	180	110	61	35	135	23	311	399
29	17	61	48	185	-	108	*85	35	102	25	198	399
30	16	69	55	195	-----	106	105	32	67	30	*a130	346
31	14	- - -	49	175	-----	100	-----	28	-----	26	a110	- - -
Total	221.0	1,172.5	2,626	2,976	6,198	5,153	3,605	1,199	1,322	2,438	21,020	27,156
Mean	7.13	39.1	84.7	96.0	221	186	120	38.7	44.1	78.6	678	905
Cfs/m	0.031	0.171	0.370	0.419	0.965	0.725	0.524	0.169	0.193	0.343	2.96	3.95
In.	0.04	0.19	0.43	0.48	1.01	0.84	0.59	0.19	0.21	0.40	3.41	4.41

Calendar year 1954: Max 4,470 Min 1.9 Mean 221 Cfs/m 0.965 In. 13.11
Water year 1954-55: Max 3,220 Min 1.9 Mean 206 Cfs/m 0.900 In. 12.20

Peak discharge (base, 1,200 cfs).--Aug. 20 (12 m.) 2,950 cfs (11.97 ft); Aug. 24 (4 p.m.) 1,560 cfs (9.52 ft); Sept. 5 (2 p.m.) 3,350 cfs (12.39 ft); Sept. 20 (7 p.m.) 1,880 cfs (10.34 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 2 gage readings and recorded range in stage.

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 1955.

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.--25 years, 2,415 cfs.

Extremes.--Maximum discharge during year, 23,200 cfs Sept. 8 (gage height, 24.36 ft); minimum, 93 cfs Oct. 14 (gage height, 1.50 ft).
1930-55: 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. Records of chemical analyses for the water year 1955 are given in WSP 1400.

Revisions (water years).--WSP 822: Drainage area. WSP 1333: 1931, 1935.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 20 to Jan. 24, Sept. 19-26; rate of change in stage used as a factor Oct. 17, 18, Dec. 17, Feb. 8, 19, 20, 27, Apr. 18, 22, May 26, July 13, 19, Aug. 13, 17-21, 29-31, Sept. 1-7, 11-15, 19, 24-26)

Oct. 1 to Aug. 23

Aug. 24 to Sept. 30

1.5	93	8.0	2,830	6.0	1,640	18.0	9,520
2.0	202	10.0	4,020	8.0	2,660	23.0	19,000
2.5	342	14.0	6,700	10.0	3,800	24.0	22,000
3.0	509	18.0	10,200	14.0	6,000	24.2	22,600
4.0	870	22.0	16,700				
6.0	1,750	23.0	19,000				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	283	509	810	*1,950	3,540	1,240	1,240	680	364	628	3,550
2	117	298	560	810	1,750	2,830	1,150	1,070	680	289	715	*4,070
3	115	286	680	810	1,650	2,440	1,110	910	560	242	698	6,080
4	117	275	732	790	1,600	2,280	1,110	790	475	207	1,050	8,550
5	115	280	662	770	1,550	2,170	1,070	732	424	192	910	11,300
6	113	261	680	770	1,460	2,000	1,030	680	351	182	750	14,900
7	103	258	662	770	1,650	2,000	990	611	312	182	611	19,400
8	97	309	950	770	2,610	2,170	970	543	306	202	475	*22,600
9	97	*373	1,550	770	3,520	2,720	970	543	277	210	367	22,500
10	101	404	1,700	732	4,150	3,220	970	509	277	318	306	20,200
11	101	376	1,460	750	4,540	3,280	950	441	312	560	292	16,500
12	97	339	1,240	770	4,930	2,550	910	414	312	790	456	12,600
13	95	309	1,240	830	5,320	2,000	890	414	298	1,420	944	*8,580
14	95	286	1,350	970	5,580	2,000	930	509	309	2,110	2,020	*5,300
15	131	280	1,370	1,050	5,580	2,220	1,150	509	315	2,500	2,510	*3,320
16	115	263	1,370	1,070	5,390	2,440	2,340	509	330	3,100	2,790	*2,550
17	119	242	1,970	1,030	5,280	2,550	3,160	526	327	3,640	4,010	2,130
18	1,060	233	2,280	970	5,190	2,610	3,760	526	289	3,520	6,200	1,870
19	1,580	244	1,850	950	4,230	2,830	4,090	543	277	*1,970	8,420	4,290
20	1,400	275	*1,550	930	2,760	3,160	4,350	509	376	1,280	10,800	*6,160
21	860	333	1,370	950	2,170	3,460	4,350	458	594	930	13,100	6,490
22	577	458	1,240	1,020	1,850	3,640	2,820	441	543	790	15,500	6,700
23	458	543	1,150	1,110	1,650	3,700	1,950	543	492	770	17,800	6,420
24	397	611	1,070	1,350	1,550	3,640	1,500	645	458	645	18,800	5,360
25	354	790	1,020	1,600	1,550	3,100	1,330	680	441	509	18,300	4,280
26	315	770	1,020	1,950	1,650	2,500	*1,240	956	441	407	17,500	3,280
27	283	662	990	2,220	2,580	2,110	1,190	1,330	441	342	17,000	3,050
28	277	577	950	2,390	3,160	1,800	1,410	1,070	414	309	16,200	3,110
29	526	526	890	2,390	-	1,600	1,650	950	431	342	14,000	2,880
30	275	492	850	2,350	-----	1,460	1,460	790	441	441	9,980	2,440
31	272	-	810	2,170	-----	1,370	-----	645	-----	458	5,990	-
Total	10,226	11,636	35,705	36,562	86,830	79,190	52,040	21,036	12,183	29,221	209,102	240,470
Mean	330	388	1,152	1,179	3,101	2,554	1,735	679	406	943	6,745	8,016
Cfs/m	0.138	0.162	0.482	0.493	1.30	1.07	0.728	0.284	0.170	0.395	2.82	3.35
In.	0.16	0.18	0.56	0.57	1.35	1.23	0.81	0.33	0.19	0.45	3.25	3.74

Calendar year 1954: Max 21,100 Min 95

Water year 1954-55: Max 22,600 Min 95

Mean 2,070

Mean 2,258

Cfs/m 0.868

Cfs/m 0.945

In. 11.76

In. 12.82

* Discharge measurement made on this day.

NEUSE RIVER BASIN

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 1955.

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.--25 years, 2,768 cfs.

Extremes.--Maximum discharge during year, 20,000 cfs Sept. 12 (gage height, 20.81 ft); minimum, 159 cfs Oct. 10, 11, 12 (gage height, 1.75 ft).

1930-55: 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 except those for period of no gage-height record, which are poor. Records of chemical analyses and water temperatures for the water year 1955 are given in WSP 1400.

Revisions (water years).--WSP 822: Drainage area. WSP 1333: 1931-32.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

(Rate of change in stage used as a factor Feb. 22, 28, Apr. 17, 18, July 14, 20, Aug. 17-19, 23, 24, Sept. 2, 3, 6-9, 14-21, 27-29)

Oct. 1 to Aug. 16

Aug. 17 to Sept. 30

1.70	150	5.0	1,330	10.0	3,890
1.8	168	7.0	2,340	13.0	6,200
2.0	205	9.0	3,540	15.0	9,370
2.5	326	11.0	4,900	18.0	15,000
3.0	486	12.0	5,640	20.0	17,800
4.0	880			20.7	19,700

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	186	316	576	860	2,340	2,940	1,510	1,560	757	444	a630	13,200
2	182	321	556	860	*2,170	3,240	1,420	1,380	696	401	a700	10,200
3	179	347	596	860	1,970	3,120	1,330	1,190	716	335	a700	8,260
4	179	350	676	839	1,810	2,700	1,240	1,060	616	292	a750	7,700
5	173	347	798	839	1,760	2,460	1,240	920	521	249	a1,000	7,600
6	175	350	839	839	1,710	2,280	1,190	818	*451	224	a900	9,010
7	168	350	860	798	1,710	2,170	1,150	757	410	213	a750	10,800
8	168	329	860	798	1,860	2,120	1,100	676	359	226	a600	13,000
9	166	341	970	798	2,340	2,230	1,080	616	341	277	a520	15,500
10	161	*404	1,470	798	3,060	2,580	1,060	596	323	374	a470	17,300
11	161	*448	1,710	798	3,480	3,000	1,060	556	308	365	a460	19,400
12	163	451	1,610	860	3,860	3,180	1,040	*504	326	486	a700	19,700
13	163	426	1,420	860	4,200	3,000	1,010	468	347	880	a1,300	*18,800
14	166	395	1,380	880	4,550	2,460	990	486	329	1,340	2,460	16,200
15	186	365	1,420	920	4,830	2,280	1,050	538	323	1,810	2,760	*13,000
16	177	356	1,510	1,060	5,120	2,340	1,240	538	326	2,230	3,180	*9,400
17	192	347	1,510	1,120	5,260	2,580	1,990	521	326	2,640	3,980	*6,340
18	186	329	1,860	1,100	5,260	2,700	2,840	538	341	3,060	5,170	4,380
19	511	321	2,170	1,100	5,190	2,700	3,240	538	344	3,240	6,170	5,500
20	1,280	326	2,020	1,100	5,040	2,890	3,600	538	359	*2,600	6,560	7,920
21	1,380	350	*1,660	1,080	4,410	3,060	3,860	521	416	1,590	7,300	10,600
22	1,040	392	1,470	1,080	2,930	3,300	4,060	521	576	1,150	8,340	*11,200
23	716	468	1,380	1,150	2,340	3,480	3,860	538	596	920	10,200	11,000
24	538	596	1,240	1,330	1,910	3,600	2,570	616	538	839	12,200	10,300
25	468	656	1,150	1,510	1,810	3,670	1,770	676	466	757	13,600	9,720
26	410	798	1,100	1,760	1,760	3,480	1,510	716	504	596	15,500	8,850
27	380	839	1,080	2,070	1,810	2,940	*1,380	758	486	504	16,500	7,220
28	350	757	1,060	2,280	2,460	2,400	1,280	1,190	486	423	16,800	5,910
29	328	676	1,040	2,400	-	2,020	1,420	1,120	448	374	16,300	4,900
30	323	616	990	2,460	-----	1,810	1,610	1,010	426	a420	15,800	4,380
31	323	-----	920	2,460	-----	1,610	-----	920	-----	a560	15,000	-----
Total	11,176	13,367	37,901	37,667	86,950	84,330	53,730	23,424	13,481	29,819	187,300	517,270
Mean	361	446	1,223	1,215	3,105	2,720	1,791	756	449	962	6,042	10,580
Cfsm	0.134	0.166	0.455	0.452	1.15	1.01	0.666	0.281	0.167	0.358	2.25	3.93
In.	0.15	0.18	0.52	0.52	1.20	1.17	0.74	0.32	0.19	0.41	2.59	4.39
Calendar year 1954:	Max 19,600	Min 161	Mean 2,235	Cfsm 0.851	In. 11.26							
Water year 1954-55:	Max 19,700	Min 161	Mean 2,456	Cfsm 0.913	In. 12.38							

* Discharge measurement made on this day.

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

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 1955.

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.--1954: Maximum discharge observed during period July to September, 14 cfs July 27 (gage height, 1.24 ft); minimum observed, 1.3 cfs Sept. 10, 15 (gage height, 0.82 ft).

1954-55: Maximum discharge during water year, 2,050 cfs Sept. 20 (gage height, 12.37 ft); minimum, 1.0 cfs Oct. 7, 8 (gage height, 0.80 ft).

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

Discharge, in cubic feet per second, 1954

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	7.8	4.6	11	-	4.8	2.5	21	-	3.9	3.4
2	-	7.2	4.3	12	-	4.6	1.9	22	-	4.1	4.3
3	-	7.2	3.4	13	-	4.3	1.7	23	-	4.3	3.0
4	-	7.2	5.0	14	-	3.9	1.6	24	-	3.4	2.5
5	-	*6.0	2.5	15	-	3.9	1.3	25	-	3.0	4.3
6	-	6.0	2.2	16	-	3.9	1.6	26	-	3.0	4.3
7	-	6.0	1.9	17	-	*3.4	1.9	27	*14	3.0	3.4
8	-	5.7	*1.6	18	-	3.6	1.9	28	12	3.9	*2.5
9	-	5.4	1.4	19	-	3.9	2.0	29	10	4.3	2.2
10	-	5.4	1.6	20	-	3.9	2.2	30	9.5	4.3	2.5
								31	8.6	4.8	-
Total.....									-	146.1	77.5
Mean.....									-	4.71	2.58
Cubic feet per second per square mile.....									-	0.061	0.033
Runoff in inches.....									-	0.07	0.04

Peak discharge (base, 390 cfs).--No peak above base.

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	5.4	12	a15	*35	35	23	13	12	7.5	19	74
2	2.2	5.9	11	a15	33	31	23	18	10	6.3	13	246
3	1.9	6.7	11	a15	33	29	23	18	9.5	5.4	7.8	596
4	1.6	7.3	11	a15	29	*28	24	14	8.8	5.2	19	1,160
5	1.3	11	11	a15	28	26	22	13	8.4	4.5	25	*910
6	1.1	19	15	a15	62	28	23	11	*7.7	4.3	11	865
7	1.0	12	26	a15	*115	37	28	10	10	4.5	7.2	*549
8	1.0	9.5	33	a15	101	35	26	9.5	28	7.2	5.6	262
9	1.3	8.1	25	a15	77	29	23	10	15	6.1	4.7	152
10	1.6	7.7	25	a15	60	28	22	10	10	5.8	4.3	109
11	1.6	*7.5	22	a18	50	26	20	9.5	8.8	*5.6	4.7	98
12	1.6	7.7	18	a24	43	33	20	8.8	8.8	7.0	*38	90
13	1.9	8.1	16	a28	41	52	22	12	8.4	*47	97	80
14	1.9	8.1	74	a26	41	65	34	49	7.7	36	76	75
15	3.4	8.6	80	a22	39	*65	62	51	6.8	17	52	*70
16	4.4	9.1	77	a20	37	60	51	20	6.4	11	37	64
17	3.0	9.5	46	a20	35	50	39	14	6.2	10	355	60
18	1.8	10	38	*19	33	45	32	12	6.2	7.8	*560	59
19	1.5	11	36	23	33	50	28	10	7.9	6.3	*600	865
20	1.7	20	*30	35	31	58	26	9.0	32	7.0	663	1,890
21	1.8	22	26	35	28	50	23	8.1	49	11	620	*1,260
22	2.2	18	21	41	28	45	21	16	25	15	398	802
23	2.4	16	20	58	28	39	20	112	16	8.0	*204	520
24	2.6	14	18	74	35	33	18	101	14	5.8	305	263
25	2.7	13	16	77	50	31	18	54	14	5.2	287	167
26	2.8	12	a15	65	45	29	*17	32	22	4.7	178	144
27	2.9	12	a15	55	39	28	16	22	16	3.9	126	130
28	3.0	12	a15	50	37	26	16	17	12	3.7	90	118
29	3.4	12	a15	48	-	24	15	14	9.6	4.1	73	109
30	3.6	*12	a15	43	-	24	14	13	8.2	6.1	59	103
31	4.4	-	a15	37	-	24	13	13	-	8.0	*51	-
Total	70.1	335.2	808	964	1,244	1,163	749	703.9	404.2	286.8	4,980.3	11,890
Mean	2.26	11.2	26.1	31.1	44.4	37.5	25.0	22.7	13.5	9.25	161	396
Cfs/m	0.029	0.144	0.356	0.401	0.572	0.483	0.322	0.293	0.174	0.119	2.07	5.10
In.	0.03	0.16	0.39	0.46	0.60	0.56	0.36	0.34	0.19	0.14	2.39	5.70
Calendar year 1954: Max - Min - Mean - Cfs/m - In. -												
Water year 1954-55: Max 1,890 Min 1.0 Mean 64.7 Cfs/m 0.834 In. 11.32												

Peak discharge (base, 390 cfs).--Aug. 20 (9 p.m.) 700 cfs (8.92 ft); Aug. 24 (8 p.m.) 395 cfs (7.29 ft); Sept. 4 (8 a.m.) 1,280 cfs (10.70 ft); Sept. 20 (8 a.m.) 2,050 cfs (12.37 ft).

* Discharge measurement made on this day.

No gage-height record; discharge estimated on basis of records at Sapony Creek and weather records.

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 (revised).

Records available.--November 1928 to September 1955.

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.--26 years (1929-55), 717 cfs.

Extremes.--Maximum discharge during year, 7,160 cfs Sept. 8 (gage height, 16.18 ft); minimum, 16 cfs Oct. 11-15; minimum gage height, 1.50 Oct. 14, 15.
1928-55: Maximum discharge, 11,100 cfs Oct. 6, 1929 (gage height, 18.9 ft); minimum, 13 cfs Sept. 16, 17, 1932 (gage height, 1.17 ft).
Maximum stage known, 23.3 ft in September 1928, from floodmark. High water of autumn 1924 was at practically the same stage.

Remarks.--Records fair.

Revisions (water years).--WSP 1333: 1930-35.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	23	41	126	*402	384	242	131	96	510	89	959
2	19	23	40	126	332	402	222	131	90	353	94	*880
3	19	24	40	121	376	411	216	128	74	227	83	1,480
4	18	24	38	117	351	*384	216	125	75	146	79	2,880
5	18	30	40	113	321	359	203	121	66	100	73	4,180
6	18	36	69	111	298	344	197	113	54	75	74	5,880
7	17	40	99	108	344	328	203	106	46	81	81	*6,620
8	17	43	126	108	456	328	203	98	52	82	69	*7,160
9	17	43	122	109	547	321	197	91	61	75	54	6,800
10	17	37	109	109	639	321	191	85	*196	67	46	5,430
11	16	*35	103	118	695	314	185	81	381	89	46	4,310
12	16	35	131	136	732	314	180	76	349	106	177	3,230
13	16	36	152	152	751	336	185	*76	223	141	572	*2,540
14	16	35	158	168	751	344	197	93	168	350	810	2,050
15	18	35	174	163	676	359	235	128	146	599	953	*1,580
16	22	33	269	158	520	367	298	130	121	713	1,020	1,180
17	21	35	298	158	474	351	376	108	94	810	1,430	940
18	21	33	255	*163	429	359	474	91	76	870	*1,770	675
19	21	33	235	168	402	420	528	78	68	931	1,930	1,930
20	23	35	242	163	359	474	565	68	79	953	2,280	*4,030
21	23	40	235	168	328	510	510	58	115	*694	3,260	4,700
22	22	47	197	180	314	565	372	65	131	355	*4,030	*5,550
23	22	60	168	222	298	584	296	80	141	191	6,080	6,440
24	23	74	152	284	284	584	242	332	136	129	*6,080	6,620
25	24	79	136	359	306	547	209	580	109	104	5,210	6,080
26	24	69	129	402	336	474	185	621	96	81	4,020	4,630
27	24	56	126	420	367	402	174	537	123	64	3,120	3,610
28	26	50	121	420	376	344	158	346	286	55	2,540	3,160
29	25	46	116	458	-	306	141	211	429	53	2,000	2,580
30	23	*43	116	429	-----	276	131	158	510	71	1,600	2,160
31	23	---	121	411	-----	262	-----	121	-----	81	1,230	---
Total	628	1,232	4,358	6,428	12,524	12,074	7,733	5,167	4,581	9,154	50,900	110,264
Mean	20.3	41.1	141	207	447	389	258	167	153	295	1,642	3,675
Cfsm	0.028	0.056	0.193	0.284	0.613	0.534	0.354	0.229	0.210	0.405	2.25	5.04
In.	0.03	0.06	0.22	0.33	0.64	0.62	0.39	0.26	0.23	0.47	2.60	5.63

Calendar year 1954: Max 6,680 Min 16 Mean 503 Cfsm 0.690 In. 9.37

Water year 1954-55: Max 7,160 Min 16 Mean 617 Cfsm 0.846 In. 11.48

* Discharge measurement made on this day.

Swift Creek near Vanceboro, N. C.

Location--Lat 35°20'42", long 77°11'44", on left bank at highway bridge, 2½ miles up-stream 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 1955.

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--5 years, 124 cfs.

Extremes--Maximum discharge during year, 6,060 cfs Sept. 22 (gage height, 13.67 ft); no flow Oct. 4 to Nov. 9.

1950-55: Maximum discharge, that of Sept. 22, 1955; 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. Records of chemical analyses and water temperatures for the water year 1955 are given in WSP 1400.

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Apr. 15 to June 21,
Aug. 30 to Sept. 2)

2.0	0	4.0	51
2.1	.1	4.5	119
2.2	.2	5.0	215
2.3	.4	5.5	315
2.4	.6	6.0	420
2.5	1.0	7.0	650
2.7	2.2	8.0	980
3.0	5.3	10.0	2,150
3.3	11	12.0	4,000
3.6	21	13.6	5,930

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0	0.9	2.8	17	18	23	6.7	7.7	5.3	13	*113
2	.1	0	.9	2.9	14	17	22	6.3	5.8	5.3	13	119
3	.1	0	.9	2.9	*13	16	24	5.8	3.5	2.2	5.9	336
4	0	0	.9	2.8	12	16	24	5.3	2.6	3.2	5.6	612
5	0	0	.9	2.8	11	15	23	5.0	2.2	4.0	6.7	805
6	0	0	3.1	2.7	11	14	25	4.5	1.8	2.0	4.3	1,320
7	0	0	3.8	2.7	16	15	26	4.0	1.6	1.6	3.2	1,940
8	0	0	4.5	2.6	17	26	3.7	2.1	6.6	1.6	*2,150	516
9	0	0	4.5	2.6	30	17	26	3.5	*3.8	34	1.0	1,940
10	0	.1	4.1	2.6	34	16	24	3.2	3.3	46	.9	1,560
11	*0	*.3	3.7	3.8	33	15	23	2.9	2.6	23	6.6	1,200
12	0	.4	3.2	4.6	30	14	22	2.7	2.1	41	243	940
13	0	.5	2.8	5.0	26	14	21	*2.7	2.7	97	*698	706
14	0	.5	3.3	5.2	25	19	25	4.6	4.5	*185	*1,080	516
15	0	.5	3.6	5.3	22	24	28	33	2.7	158	1,290	*378
16	0	.5	4.6	5.2	20	29	29	38	1.7	97	*1,230	295
17	0	.5	8.0	4.9	20	*34	29	17	1.2	63	1,520	239
18	0	.5	8.8	*4.6	19	36	25	10	1.2	41	2,270	186
19	0	.5	7.7	6.1	18	36	21	6.9	1.9	30	2,770	1,080
20	0	.6	6.6	8.2	17	40	18	5.3	3.2	27	*2,500	*4,760
21	0	.9	6.4	9.2	16	48	16	4.4	12	*28	2,220	*5,930
22	0	.9	*5.6	12	14	56	14	4.8	31	18	1,870	5,330
23	0	.9	4.6	14	15	32	13	8.0	16	9.2	1,500	5,280
24	0	1.0	4.1	23	15	48	11	14	8.6	5.2	1,180	4,110
25	0	1.0	3.8	31	16	43	9.7	14	5.0	3.8	*880	2,950
26	0	1.0	3.5	40	16	40	8.8	9.2	8.2	4.3	638	2,150
27	0	1.0	3.3	42	18	36	8.4	7.8	26	2.9	452	1,500
28	0	.9	3.1	36	19	33	*8.0	5.3	51	2.2	326	1,080
29	0	.9	3.0	28	---	29	7.5	3.9	25	1.6	245	805
30	0	*.9	3.0	23	---	27	6.9	3.9	10	1.4	175	625
31	0	---	2.9	19	---	25	---	5.3	---	4.1	133	---
Total	0.4	14.3	120.1	357.5	538	860	587.3	251.7	251.0	950.9	23,281.8	51,555
Mean	0.01	0.48	3.87	11.5	19.2	27.7	19.6	8.12	8.37	30.7	751	1,718
Cfsam	0.000055	0.0026	0.021	0.063	0.105	0.152	0.108	0.045	0.046	0.169	4.13	9.44
In.	0.00008	0.003	0.02	0.07	0.11	0.18	0.12	0.05	0.05	0.19	4.76	10.53

Calendar year 1954: Max 1,260

Min 0

Mean 91.3

Cfsam 0.502

In. 6.80

Water year 1954-55: Max 5,930

Min 0

Mean 216

Cfsam 1.19

In. 16.08

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

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 1955.

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.

Extremes.--Maximum discharge during year, 9,100 cfs Sept. 21 (gage height, 17.84 ft); minimum, 1.3 cfs Oct. 11-15.

1951-55: Maximum discharge, that of Sept. 21, 1955; minimum, that of 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 1955 are given in WSP 1400.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-14

Oct. 15 to Sept. 30

2.2	1.0	2.3	1.1	6.0	173	15.0	3,120
2.3	2.1	2.5	3.1	8.0	320	16.0	4,560
		2.7	6.2	10.0	615	17.0	6,750
		2.9	10	12.0	1,190	17.7	8,800
		3.3	23	13.0	1,560		
		4.0	53	14.0	2,120		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	1.6	2.4	5.7	44	24	24	9.4	13	89	83	517
2	1.9	1.6	2.6	8.2	*42	24	23	9.4	12	62	92	*895
3	1.9	1.6	2.4	9.4	36	21	23	9.1	11	44	77	955
4	1.9	1.6	2.4	9.8	33	20	23	9.4	9.8	35	156	1,520
5	1.9	1.7	2.7	9.6	30	19	22	9.1	8.2	26	192	1,560
6	1.9	1.7	4.2	8.9	28	19	21	8.7	7.2	21	185	1,400
7	1.8	1.6	3.8	8.7	31	23	21	7.8	6.6	17	146	1,190
8	1.7	1.6	3.9	8.7	35	25	23	7.8	*6.0	18	95	*940
9	1.6	1.5	5.2	8.2	40	28	23	10	5.4	20	57	710
10	1.4	*1.6	7.2	7.2	42	29	23	12	7.6	32	40	555
11	1.4	1.6	7.4	7.6	40	29	22	16	8.9	73	61	515
12	1.3	1.6	6.2	8.2	39	29	21	17	8.0	104	895	535
13	1.3	1.6	6.0	8.9	36	28	21	18	6.2	173	*2,200	497
14	1.3	1.5	7.4	10	35	33	22	27	5.0	227	*3,740	420
15	1.3	1.5	8.9	10	34	44	27	40	4.1	227	4,210	350
16	1.5	1.6	9.1	9.8	32	*54	34	50	3.8	213	*3,360	*286
17	1.4	1.6	9.1	9.1	31	60	38	52	3.1	173	3,760	234
18	1.4	1.6	10	8.4	*30	63	38	45	3.2	133	4,740	192
19	1.4	1.6	10	9.8	27	61	35	37	5.2	101	*5,120	2,110
20	1.4	1.9	10	11	26	58	31	31	14.0	*92	*4,580	7,010
21	1.4	2.2	*11	14	26	56	27	26	62	98	2,960	*8,580
22	1.4	2.2	11	17	26	55	25	23	125	86	1,800	6,000
23	1.6	2.2	9.8	18	25	53	24	22	143	60	1,160	3,900
24	1.6	2.1	8.7	25	25	48	21	23	206	41	791	2,260
25	1.6	2.1	8.0	36	24	43	18	28	234	31	*1,120	1,440
26	1.6	2.1	7.6	42	25	38	15	30	227	25	1,740	926
27	1.6	2.0	7.2	43	25	35	*15	28	220	21	1,910	615
28	1.6	2.2	6.4	42	24	32	12	23	192	17	1,560	465
29	1.7	2.3	5.7	38	-	30	11	18	161	15	1,190	380
30	1.6	2.4	5.0	38	-----	27	10	17	127	22	820	320
31	1.6	-----	4.8	42	-----	25	-----	16	-----	50	555	-----
Total	49.0	54.0	206.1	532.2	891	1,133	679.7	1,845.3	2,346	49,195	47,307	
Mean	1.58	1.80	6.65	17.2	31.8	36.5	23.1	21.9	61.5	75.7	1,987	1,577
Cfsm	0.009	0.011	0.040	0.102	0.189	0.217	0.138	0.150	0.366	0.450	9.45	9.39
In.	0.01	0.01	0.05	0.12	0.20	0.25	0.15	0.15	0.41	0.52	10.89	10.47
Calendar year 1954: Max			675		Min 1.3	Mean 86.4	Cfsm 0.514	In. 6.97				
Water year 1954-55: Max			8,560		Min 1.3	Mean 287	Cfsm 1.71	In. 23.23				

* 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 3¼ miles southeast of Richlands.

Drainage area.--74.5 sq mi.

Records available.--August 1949 to September 1955.

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.--6 years, 86.8 cfs.

Extremes.--Maximum discharge during year, 7,900 cfs Sept. 20 (gage height, 19.99 ft, from floodmark); minimum, 1.8 cfs Oct. 7 (gage height, 0.50 ft).

1949-55: Maximum discharge, that of Sept. 20, 1955; minimum, that of Oct. 7, 1954. 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 27 to May 8)

Oct. 1-14, Apr. 15 to Aug. 12	Oct. 15 to Apr. 4	Aug. 13 to Sept. 30
0.5	0.7	4.5
1.8	2	102
3.8	3.6	206
8.7	8.7	325
21	18	600
36	28	1,180
81	2.5	2,020
141	3.0	3,600
305	4.0	6,050
860		7,900

Discharge, in cubic feet per second water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	2.5	7.1	11	32	20	15	8.3	11	11	86	156
2	2.1	2.5	6.7	12	*30	19	15	8.3	8.7	8.5	61	*252
3	2.1	2.5	6.5	16	29	18	18	9.3	7.2	6.8	32	584
4	2.0	2.5	6.4	16	26	17	20	8.1	6.3	5.8	27	1,080
5	2.0	2.5	6.4	14	24	17	18	7.2	5.5	5.7	28	1,210
6	1.9	2.5	12	12	24	17	16	6.3	4.9	4.8	22	1,050
7	1.9	2.5	23	12	44	30	19	6.3	4.5	4.9	15	890
8	2.1	3.0	20	12	68	40	20	6.2	*4.1	5.2	11	660
9	2.1	3.2	14	11	61	32	a19	37	3.7	5.2	8.7	*457
10	2.0	*3	12	11	48	25	a18	61	3.6	20	9.4	322
11	2.0	3	11	12	43	22	a18	64	4.9	19	49	349
12	2.0	3	9.6	21	52	21	a20	28	8.3	18	801	448
13	2.0	3	8.9	20	48	20	a20	20	6.2	64	2,240	430
14	2.0	3	20	16	40	30	a22	68	4.9	144	2,070	322
15	e2	3	24	14	36	59	a66	124	4.1	101	*1,520	228
16	2	3	20	13	34	*61	a70	100	3.7	48	*1,050	*166
17	2	3.3	15	12	32	48	a50	44	3.5	28	1,680	125
18	2	3.5	16	11	30	36	a40	27	4.2	19	*5,050	104
19	2	3.9	23	17	27	31	a25	20	18	21	1,940	*2,730
20	2	5.0	20	44	25	38	a16	16	44	*30	1,130	*6,490
21	2	6.7	*17	52	24	40	a14	14	53	52	672	g3,040
22	2	8.1	14	42	23	35	a12	12	29	44	397	g1,680
23	2	7.7	13	38	23	31	a12	15	18	24	247	1,100
24	2	7.1	12	70	22	25	a10	22	15	16	*256	704
25	2	6.4	11	109	22	23	a9.5	25	17	11	611	493
26	2	6.2	11	121	21	21	a9.5	19	32	9.5	1,440	430
27	2	6.2	10	85	20	19	*9.5	13	38	7.8	1,330	376
28	2	6.0	10	59	20	17	9.8	10	28	6.5	888	313
29	2	7.1	10	47	-	17	9.5	8.5	20	14	536	250
30	2	7.1	11	40	-----	16	8.7	9.3	15	17	344	202
31	2	-----	11	35	-----	15	-----	12	-----	54	214	-----
Total	62.4	129.0	411.6	1,005	928	860	629.5	848.8	426.3	825.7	22,745.1	26,821
Mean	2.01	4.30	13.3	32.4	33.1	27.7	21.0	27.4	14.2	26.6	734	887
Cfsm	0.027	0.058	0.178	0.435	0.444	0.372	0.282	0.368	0.191	0.357	9.85	11.9
In.	0.03	0.06	0.21	0.50	0.46	0.43	0.31	0.42	0.21	0.41	11.35	13.29

Calendar year 1954: Max 366 Min 1.9 Mean 49.9 Cfsm 0.670 In. 9.09
Water year 1954-55: Max 6,490 Min 1.9 Mean 152 Cfsm 2.04 In. 27.68

Peak discharge (base, 800 cfs).--Aug. 13 (6 p.m.) 2,410 cfs (15.64 ft); Aug. 18 (8 a.m.) 3,300 cfs (16.73 ft); Aug. 26 (6 p.m.) 1,800 cfs (14.24 ft); Sept. 5 (2 a.m.) 1,300 cfs (13.35 ft); Sept. 20 (4 a.m.) 7,900 cfs (19.99 ft, from floodmark).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of rainfall records, recorded range in stage, and records for nearby stations.

e Stage-discharge relation indefinite; discharge estimated.

g Computed from graph based on several gage readings, floodmark, and shape of normal recorder graph.

CAPE FEAR RIVER BASIN

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 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 1955.

Gage.--Water-stage recorder. Altitude of gage is 629 ft (by barometer).

Average discharge.--27 years, 163 cfs.

Extremes.--Maximum discharge during year, 4,060 cfs Oct. 16 (gage height, 12.76 ft); minimum, 0.6 cfs Oct. 7-9 (gage height, 0.38 ft).

1928-55: 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, that of Oct. 7-9, 1954.

Flood in July 1916 reached a stage of about 17.5 ft, from floodmark on tree 500 ft below gage.

Revisions.--The maximum discharge for the water year 1933 has been revised to 1,880 cfs May 30, 1933 (gage height, 8.40 ft), superseding figure published in WSP 742.

Remarks.--Records good. City of Reidsville diverted about 0.9 cfs for municipal water supply from Haw River and Amos Lake above station Oct. 1-14 as result of drought emergency.

Revisions.--Revised figures of discharge, in cubic feet per second, for periods in the water year 1941, superseding those published in WSP 922, are given herewith:

1941		1941-Con.	
June 25.....	48	June 28.....	37
26.....	34	30.....	46
27.....	32	July 7.....	185

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
June 1941.....	2,317	191	28	77.2	0.460	0.51
July.....	6,165	623	26	199	1.18	1.36
Water year 1940-41.....	45,988	1,410	20	126	.750	10.17
Calendar year 1941.....	36,360	623	17	99.6	.593	8.05

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	59	216	88	86	127	99	95	53	28	36	44
2	1.2	52	168	88	91	127	96	87	49	25	33	140
3	1.2	55	126	87	92	116	96	79	46	24	24	376
4	1.2	56	105	84	84	109	93	74	43	23	20	519
5	.9	64	93	83	76	109	88	71	42	98	19	568
6	.7	76	165	82	202	132	88	66	41	74	25	364
7	.7	72	236	79	555	168	89	61	39	42	25	159
8	.6	64	255	75	758	168	88	59	45	53	83	103
9	.6	58	229	74	732	135	83	54	47	57	103	80
10	1.1	53	232	74	447	*115	80	50	46	121	116	71
11	1.1	55	229	93	353	109	83	48	62	98	82	67
12	1.1	53	168	110	263	144	116	51	170	*306	78	62
13	1.3	51	230	109	207	196	131	76	201	568	62	56
14	1.3	50	447	96	165	174	1,240	201	115	403	193	52
15	853	49	555	88	144	149	*1,660	278	64	140	*640	50
16	*3,230	*49	*605	86	137	196	1,220	229	54	82	1,040	48
17	*3,190	50	435	80	131	288	894	121	*48	61	1,050	45
18	1,480	56	331	75	127	331	447	88	43	47	1,940	44
19	526	64	227	79	118	353	251	75	45	39	2,480	42
20	299	71	194	89	110	331	180	62	48	34	1,290	42
21	144	110	161	88	105	320	147	55	45	31	563	38
22	88	221	129	95	100	288	127	95	40	29	312	36
23	67	310	114	116	100	244	120	174	70	26	132	38
24	58	299	108	123	102	212	108	*205	95	25	84	41
25	51	244	102	123	120	172	172	249	62	32	*67	44
26	46	168	96	*115	124	152	253	253	53	28	60	47
27	44	126	92	108	118	142	278	199	52	25	55	46
28	*40	105	92	102	121	131	*186	108	40	22	50	43
29	50	140	93	100	-	116	131	79	34	21	48	40
30	69	194	96	95	-----	109	108	66	32	25	45	44
31	66	---	92	83	-----	102	-----	60	-----	29	45	---
Total	10,315.3	3,074	6,441	2,867	5,768	5,565	8,752	3,468	1,824	2,616	10,800	3,349
Mean	333	102	208	92.5	206	180	292	112	60.8	84.4	348	112
Cfsm	1.98	0.607	1.24	0.551	1.23	1.07	1.74	0.667	0.362	0.502	2.07	0.667
In.	2.28	0.68	1.43	0.63	1.28	1.23	1.94	0.77	0.40	0.58	2.39	0.74

Calendar year 1954: Max 3,230 Min 0.6 Mean 134 Cfsm 0.798 In. 10.85
 Water year 1954-55: Max 3,230 Min 0.6 Mean 178 Cfsm 1.06 In. 14.35

Peak discharge (base, 1,400 cfs).--Oct. 16 (10 p.m.) 4,060 cfs (12.76 ft); Apr. 14 (9 p.m.) 2,060 cfs (8.94 ft); Aug. 19 (5 a.m.) 2,700 cfs (10.47 ft).

* Discharge measurement made on this day.

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 1955.

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. November 1925 to July 31, 1931, water-stage recorder at site 1,000 ft upstream at datum 1.45 ft higher.

Average discharge.--22 years (1929-30, 1934-55), 14.9 cfs.

Extremes.--Maximum discharge during year, 1,840 cfs Oct. 15 (gage height, 7.83 ft); minimum, 0.4 cfs Oct. 7 (gage height, 0.59 ft).

1925-31, 1934-55: 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, that of Oct. 7, 1954.

Revisions.--The maximum discharge for the water year 1927 has been revised to 515 cfs July 9, 1927 (gage height, 6.74 ft), superseding figure published in WSP 642.

The minimum discharge for the water year 1937 has been revised to 3.3 cfs July 18, 1937 (gage height, 0.67 ft), superseding figure published in WSP 822.

Remarks.--Records fair except those below 3 cfs in June, July, and August, which are poor. These records include a total of about 9,000,000 gal pumped from High Point Reservoir by city of Greensboro during period Oct. 5-6, 10-14.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1926, 1929, superseding those published in WSP 622, 682, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1925		1928-Con.		1928-Con.	
Dec. 29	5	Nov. 1	6.6	Nov. 11	5.6
30	6	2	6.6	12	5.6
31	6	3	6.6	13	5.8
		4	7.0		
1928		5	6.6	1929	
Oct. 27	6.3	6	6.3	Jan. 5	8
28	6.3	7	6.0	6	16
29	6.3	8	6.0	7	10
30	6.3	9	6.0	8	7
31	6.6	10	5.8		

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1925.....	41	4.8	8.35	0.525	0.61
October 1928.....	-	-	+8.41	.529	.61
November.....	8.6	5.6	6.76	.425	.47
January 1929.....	16	6.0	7.69	.484	.56

† Partly estimated.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	3.7	10	9.0	9.0	12	7.4	6.1	3.2	2.0	3.0	2.8
2	.8	4.3	9.2	9.0	9.6	10	8.3	5.9	3.0	1.9	2.0	12
3	.8	4.9	8.6	8.4	8.9	10	8.8	5.7	3.0	1.9	1.6	82
4	.9	3.2	8.1	8.4	8.6	11	7.4	5.5	3.0	1.9	1.5	27
5	2.0	7.1	8.1	8.4	8.3	9.4	7.2	7.2	3.0	3.0	1.8	14
6	1.7	5.2	69	8.6	171	10	*7.9	7.6	2.8	2.0	1.6	9.9
7	.5	4.6	17	8.3	*198	9.4	8.1	6.1	2.8	3.1	1.4	7.6
8	.8	4.2	11	8.1	33	*8.4	7.9	5.3	3.0	3.3	2.8	6.2
9	.8	4	23	7.8	22	7.9	8.4	5.1	3.0	2.6	3.0	5.8
10	2.8	3.8	18	7.8	18	7.6	7.0	5.1	3.0	6.2	1.9	5.0
11	3.6	3.8	14	18	35	8.4	7.6	4.5	4.7	6.5	1.8	4.9
12	2.8	3.8	10	*11	22	9.4	11	4.5	3.0	*6.3	1.6	4.9
13	5.0	3.7	109	10	15	8.9	14	9.0	2.6	4.8	1.3	4.4
14	3.8	3.7	148	9.0	14	9.5	*225	7.6	2.4	3.8	249	4.4
15	*642	*3.8	*30	8.8	13	8.9	7.6	6.1	2.3	3.1	95	4.3
16	*91	3.7	18	8.3	12	15	25	5.3	2.5	2.6	14	4.2
17	14	4.3	15	7.9	11	14	17	6.1	*2.1	2.2	316	3.8
18	11	4.6	24	7.8	10	13	12	7.9	2.3	2.2	*226	3.8
19	7.9	4.8	17	8.9	9.8	21	11	4.9	3.0	1.8	23	6.0
20	6.3	7.2	13	8.6	9.4	17	9.2	4.3	3.0	2.0	12	4.8
21	5.4	4.8	12	8.8	8.9	13	8.6	4.3	2.1	2.0	7.9	3.7
22	5.0	11	11	13.0	8.8	17	8.3	8.0	2.0	1.6	5.8	3.6
23	4.4	13	11	15.0	8.9	11	7.9	17	3.0	1.4	4.8	3.7
24	3.7	13	10	13.0	34	10	8.8	15	2.1	1.8	*4.6	4.0
25	3.6	11	9.2	13.0	26	9.4	13	*7.8	3.8	2.4	3.7	6.2
26	4.8	11	9.2	11	15	10	8.8	6.3	4.8	1.5	3.4	5.5
27	*4.0	9.8	9.4	11	13	8.4	8.1	5.1	3.1	1.4	3.2	4.4
28	3.8	9.1	9.4	11	13	8.3	7.6	4.7	2.8	1.4	3.0	4.3
29	5.8	33	12	11	13	7.9	6.7	4.1	2.5	5.4	2.8	4.0
30	4.6	12	11	10	-----	7.6	6.1	3.9	2.2	3.6	2.8	6.5
31	4.2	-----	9.0	9.2	-----	7.6	-----	3.7	-----	5.1	2.8	-----
Total	846.4	259.3	693.2	308.1	765.2	331.0	570.1	199.7	85.9	90.8	1,005.1	263.7
Mean	27.3	8.64	22.4	9.94	27.5	10.7	19.0	6.44	2.86	2.93	32.4	8.79
Cfsm	1.72	0.543	1.41	0.625	1.72	0.673	1.19	0.405	0.180	0.184	2.04	0.553
In.	1.98	0.61	1.62	0.72	1.73	0.77	1.33	0.47	0.20	0.21	2.35	0.62

Calendar year 1954: Max 642 Min 0.5 Mean 13.9 Cfsm 0.874 In. 11.86

Water year 1954-55: Max 642 Min 0.5 Mean 14.8 Cfsm 0.931 In. 12.67

Peak discharge (base, 300 cfs).--Oct. 15 (5 p.m.), 1,840 cfs (7.83 ft); Dec. 14 (2 a.m.), 318 cfs (6.15 ft); Feb. 6 (11 p.m.), 895 cfs (6.65 ft); Apr. 14 (2 p.m.), 441 cfs (6.41 ft); Aug. 14 (7 p.m.), 728 cfs (6.82 ft); Aug. 17 (10 p.m.), 1,090 cfs (7.19 ft).

* Discharge measurement made on this day.

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 1955.

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.--27 years, 111 cfs.

Extremes.--Maximum discharge during year, 4,310 cfs Oct. 15 (gage height, 13.36 ft); minimum daily, 0.4 cfs Oct. 14.

1928-55: Maximum discharge, 11,600 cfs Sept. 25, 1947 (gage height, 20.77 ft); minimum daily, that of Oct. 14, 1954.

Flood in July 1916 reached a stage of 17.90 ft, from information by local resident (discharge, 8,640 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)
682	1929	Mar. 1, 1929	2,730	10.14
697	1930	Oct. 3, 1929	3,830	12.65
742	1933	Oct. 18, 1932	2,470	9.43
822	1937	Jan. 20, 1937	2,730	10.11
872	1939	Aug. 20, 1939	3,100	11.08
892, 1066	1940	Aug. 15, 1940	3,880	12.70
922	1941	June 13, 1941	2,140	8.54
952	1942	Mar. 10, 1942	2,580	9.74

Remarks.--Records good. 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 14.3 cfs for municipal supply and Cone Mills diverted from Richland Lake an average of 3.6 cfs during the water year 1955.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1929, 1930, 1934, and 1948, superseding those published in WSP 682, 697, 757, and 1112, are given herewith:

1928		1933-Con.	
Dec. 22.....	42	Oct. 17.....	9.6
23.....	39		
1929		1948	
Mar. 1.....	2,520	Jan. 15.....	140
Oct. 2.....	2,460	16.....	120
3.....	3,250	17.....	100
		18.....	90
		19.....	75
1933		25.....	55
Oct. 17.....	6.0	26.....	70
		27.....	100

Month	Cfs-days	Maximum	Minimum	Mean
December 1928.....	-	122	37	55.0
March 1929.....	-	2,520	61	333
Water year 1928-29....	-	2,520	9.5	128
October 1929.....	-	3,250	28	317
Calendar year 1929....	-	3,250	9.5	166
Water year 1929-30....	-	3,250	1.8	116
October 1933.....	-	34	5.8	16.9
Calendar year 1933....	-	683	3.2	76.0
Water year 1933-34....	-	1,310	5.8	109
January 1948.....	2,712	216	51	87.5
Water year 1947-48....	40,849.9	1,050	8.7	112
Calendar year 1948....	43,598.9	1,580	8.7	119

Reedy Fork near Gibsonville, N. C.--Continued

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.4	0.3	2.0	157
.5	.6	2.5	284
.6	1.2	3.0	415
.7	2.7	4.0	710
.8	5.6	5.0	1,020
.9	10	7.0	1,660
1.0	16	9.0	2,320
1.2	32	10.0	2,690
1.4	54	11.0	3,060
1.7	96		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	22	109	53	58	98	47	39	17	5.3	2.4	10
2	1.8	22	98	53	58	92	46	36	12	4.6	3.6	66
3	2.0	22	73	53	55	78	44	33	17	1.2	12	176
4	1.8	20	58	53	60	73	47	31	12	2.2	5.7	242
5	1.6	29	50	49	57	118	43	28	10	2.4	1.4	268
6	1.8	28	127	47	396	133	42	27	5.8	3.6	.7	114
7	2.1	24	129	44	682	100	43	26	3.0	11	2.4	77
8	2.2	21	153	43	1,080	78	40	22	9.0	6.3	27	54
9	2.1	20	174	42	510	68	36	22	11	11	32	38
10	1.6	18	146	42	229	*60	35	22	20	14	23	29
11	1.1	20	129	64	146	92	39	22	18	15	16	23
12	.8	12	120	70	157	100	50	22	21	*45	6.9	20
13	.5	13	327	71	216	70	26	21	21	45	2.6	20
14	.4	13	429	64	96	68	1,420	52	21	28	210	20
15	1,740	17	740	57	86	73	1,270	67	20	21	512	17
16	2,760	*10	532	50	84	103	517	80	18	17	597	14
17	1,310	14	*248	48	84	133	240	59	*10	14	722	10
18	380	11	131	46	78	122	181	43	2.4	8.4	1,580	5.1
19	89	15	124	48	73	144	146	38	5.3	2.0	1,040	14
20	44	21	118	48	67	153	109	35	14	8.3	447	15
21	40	37	103	50	64	144	88	29	13	5.2	152	3.6
22	37	74	86	59	62	146	74	35	12	1.6	78	9.6
23	31	129	73	71	63	133	64	78	20	1.6	58	16
24	27	176	64	78	78	110	59	84	15	2.0	40	13
25	23	129	60	86	101	90	70	*96	8.9	2.2	31	6.8
26	21	88	55	*84	114	84	80	110	2.2	4.1	24	15
27	18	66	53	82	116	77	80	74	7.4	5.1	21	14
28	*16	57	53	78	105	68	70	46	13	4.5	17	19
29	22	82	57	75	-	59	58	33	15	3.2	16	16
30	24	88	57	73	-----	53	46	27	4.3	1.3	14	7.3
31	22	-	58	63	-----	49	-----	25	-----	1.5	13	-
Total	6,625.6	1,298	4,734	1,844	4,975	2,969	5,154	1,367	378.3	298.6	5,707.7	1,352.4
Mean	214	43.3	153	59.5	178	95.8	172	44.1	12.6	9.63	184	45.1
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954: Max	2,760			Min 0.4		Mean 83.8		Cfsm -		In. -		
Water year 1954-55: Max	2,760			Min 0.4		Mean 101		Cfsm -		In. -		

Peak discharge (base, 1,600 cfs).--Oct. 15 (4:30 p.m.) 4,310 cfs (13.36 ft); Apr. 14 (10 a.m.) 2,910 cfs (10.62 ft); Aug. 18 (10 p.m.) 2,250 cfs (8.75 ft).

* Discharge measurement made on this day.

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 (revised).

Records available.--August 1928 to September 1955. 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.--27 years, 38.0 cfs.

Extremes.--Maximum discharge during year, 4,700 cfs Oct. 15 (gage height, 9.76 ft); minimum, 1.6 cfs Oct. 10.

1928-55: 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 8.89, 10.64 and 11.54 ft; minimum, 0.2 cfs Oct. 2, 1930.

Revisions.--The maximum discharge for the water year 1941 has been revised to 842 cfs Nov. 15, 1940 (gage height, 7.06 ft), superseding figure published in WSP 922.

Remarks.--Records fair. 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). Revised figures of discharge, in cubic feet per second, in the water year 1931, superseding those published in WSP 712, 972, are given herewith:

July 27, 1931..... 572
July 30, 1931..... 6

Month	Maximum	Minimum	Mean
July 1931.....	572	3.0	36.0
Water year 1930-31.....	572	.6	25.0
Calendar year 1931.....	572	1.9	23.6

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-14, Oct. 19 to Nov. 28)

2.3	1.6	5.5	152
2.5	2.7	6.0	235
2.7	4.4	6.5	393
2.9	7.4	7.0	632
3.2	15	7.5	925
3.5	27	8.0	1,350
4.0	49	8.5	1,970
4.5	70	9.0	2,900
5.0	103		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	7.4	23	16	19	39	15	13	8.7	8.7	23	8.7
2	2.8	11	20	19	21	31	14	13	8.4	6.0	10	43
3	2.2	17	17	18	20	25	14	13	8.2	5.0	8.0	181
4	2.3	11	15	17	16	32	14	13	7.6	5.0	7.4	284
5	2.6	31	14	17	15	26	14	12	6.7	5.9	6.9	69
6	2.5	19	126	17	180	28	*15	13	7.1	6.9	6.6	23
7	2.6	11	131	15	*781	33	44	10	8.2	8.4	5.6	17
8	2.6	9.8	34	13	*190	23	22	11	25	13	6.6	13
9	2.4	9.1	46	13	54	19	15	11	9.5	13	9.3	11
10	2.0	8.9	80	14	35	19	13	10	8.7	38	7.2	10
11	2.2	8.9	34	60	52	*18	14	10	37	11	6.9	9.5
12	3.0	8.9	23	46	109	19	29	11	20	12	8.4	8.7
13	*3.0	8.7	134	27	36	18	32	16	7.4	*12	6.9	9.3
14	3.0	7.6	556	21	28	24	*988	19	6.9	9.1	61	9.3
15	1,200	*8.7	218	18	28	24	551	12	6.6	7.8	624	9.1
16	*1,690	9.5	52	16	26	32	117	10	6.6	7.1	109	8.7
17	195	10	*33	15	25	45	43	11	6.4	5.6	179	7.8
18	18	10	48	15	22	36	33	14	*5.9	6.4	*889	6.9
19	12	13	45	18	19	47	28	14	5.2	6.7	163	7.2
20	8.7	13	28	24	17	54	24	10	6.4	8.0	26	8.2
21	8.0	22	23	21	18	35	24	9.1	6.9	11	15	8.0
22	7.8	14	20	34	20	52	28	6.4	7.1	13	8.0	
23	6.7	14	19	55	22	40	19	63	6.4	5.9	12	8.4
24	5.7	28	18	44	44	26	23	24	6.6	8.0	*11	7.8
25	5.9	17	16	*44	151	23	137	*18	8.8	10	11	12
26	6.9	13	14	35	58	22	66	13	18	7.2	9.5	19
27	7.4	11	15	35	38	17	28	11	8.7	6.7	8.4	10
28	*7.2	11	17	33	40	16	21	10	7.8	8.8	7.2	9.5
29	14	85	24	26	-	17	19	8.2	7.4	74	7.6	9.1
30	10	48	25	21	-	16	16	9.3	6.9	30	8.2	9.3
31	7.2	-	18	19	-	15	-	9.3	-	38	9.5	-
Total	3,247.0	496.5	1,886	786	2,084	871	2,400	446.9	290.4	400.3	2,276.2	845.5
Mean	105	16.6	60.8	25.4	74.4	28.1	80.0	14.4	9.68	12.9	73.4	28.2
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954: Max	1,690											
Min	2.0											
Water year 1954-55: Max	1,690											
Min	2.0											

Peak discharge (base, 650 cfs).--Oct. 15 (12 p.m.) 4,700 cfs (9.76 ft); Feb. 7 (7 a.m.) 1,100 cfs (7.75 ft); Apr. 14 (7 p.m.) 2,400 cfs (8.75 ft); Aug. 15 (6 a.m.) 1,100 cfs (7.72 ft); Aug. 18 (8 a.m.) 1,360 cfs (8.01 ft).

* Discharge measurement made on this day.

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 (revised).

Records available.--August 1928 to September 1955.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 679 ft (from topographic map).

Average discharge.--27 years, 46.0 cfs.

Extremes.--Maximum discharge during year, 5,580 cfs Oct. 15 (gage height, 15.54 ft); minimum, 6.1 cfs Oct. 10 (gage height, 1.78 ft).

1928-55: 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.

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)
662	1928	Sept. 19, 1928	1,860	10.85
682	1929	Feb. 28, 1929	1,910	10.9
742	1933	Oct. 17, 1932	1,960	10.98
757	1934	July 9, 1934	1,430	9.66
802	1936	Jan. 19, 1936	2,230	11.38
922	1941	June 13, 1941	2,860	12.16
972	1943	July 11, 1943	4,470	14.15
1032	1945	Sept. 18, 1945	4,640	†14.40

† From floodmark.

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

Diversion into basin from Greensboro and Proximity Mills enters above station.

Revisions.--Revised figures of discharge, in cubic feet per second, for period in the water year 1929, superseding those published in WSP 682, are given herewith:

July 4, 1929..... 17

Month	Maximum	Minimum	Mean
July 1929.....	329	11.5	38.1
Water year 1928-29.....	1,210	7.5	42.2
Calendar year 1929.....	1,210	7.5	53.4

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	16	30	23	29	55	28	19	20	18	20	24
2	14	24	27	24	33	46	25	20	19	14	20	252
3	10	27	25	21	29	38	22	23	18	9.5	20	485
4	10	19	21	24	27	41	22	24	17	9.5	20	124
5	14	55	22	27	23	31	26	23	13	20	20	44
6	15	23	214	27	510	30	*29	23	14	19	19	35
7	15	16	55	25	447	30	34	19	19	26	35	31
8	15	17	35	23	85	31	26	16	54	24	41	29
9	12	20	88	19	56	31	20	17	23	56	27	27
10	8.0	20	62	18	49	28	16	22	20	48	19	23
11	9.1	19	35	107	133	*27	20	23	87	19	21	16
12	14	19	27	42	75	36	39	23	20	*40	23	20
13	*15	17	421	34	44	27	51	50	17	31	17	23
14	14	14	378	29	35	39	*1,430	28	20	22	496	24
15	2,150	16	85	25	37	35	203	18	19	19	194	24
16	516	19	50	20	35	66	74	19	20	19	44	23
17	32	27	*40	22	35	50	47	23	19	13	716	21
18	23	23	77	21	31	50	44	23	*15	15	519	18
19	23	34	35	31	27	76	39	22	13	19	56	18
20	22	28	31	40	23	51	35	20	16	27	31	23
21	21	46	29	31	24	45	34	19	19	23	22	22
22	19	27	30	65	29	78	35	30	20	18	21	23
23	17	42	27	50	34	45	27	96	23	15	24	23
24	13	40	20	49	143	37	36	35	19	29	*23	21
25	14	27	16	*47	102	33	74	*29	26	21	23	40
26	19	21	16	44	49	32	35	26	30	17	20	27
27	20	19	19	38	44	27	31	22	16	12	20	23
28	*19	20	23	35	47	27	30	19	19	23	17	23
29	42	119	50	31	-	30	27	14	19	72	18	23
30	23	35	35	26	-----	29	23	17	19	33	25	38
31	15	-	26	24	-----	28	-----	19	-----	33	25	-
Total	3,170.1	849	2,049	1,042	2,235	1,229	2,582	781	673	764.0	2,596	1,547
Mean	102	28.3	66.1	33.6	79.8	59.6	86.1	25.2	22.4	24.6	83.7	51.6
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 2,150 Min 8.0 Mean 51.0 Cfsm - In. -
 Water year 1954-55: Max 2,150 Min 8.0 Mean 53.5 Cfsm - In. -

Peak discharge (base, 920 cfs).--Oct. 15 (5 p.m.) 5,580 cfs (15.54 ft); Dec. 13 (11 p.m.) 989 cfs (7.16 ft); Feb. 6 (11 p.m.) 1,350 cfs (9.08 ft); Apr. 14 (12 m.) 3,110 cfs (12.55 ft); Aug. 14 (9 p.m.) 1,040 cfs (7.53 ft); Aug. 17 (9 p.m.) 1,790 cfs (10.62 ft).

* Discharge measurement made on this day.

CAPE FEAR RIVER BASIN

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 1955.

Gage.--Water-stage recorder. Datum of gage is 536.3 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum gage height during year, 15.26 ft Oct. 16 (discharge not determined); no flow for several days in October.

1952-55: Maximum gage height, that of Oct. 16, 1954 (discharge not determined); no flow at times in each year.

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

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 29 to Nov. 19)

0.2	0	1.4	9.6
.3	.01	1.7	21
.4	.02	2.0	39
.5	.05	2.5	82
.6	.10	3.0	146
.7	.18	3.5	228
.8	.40	4.0	339
.9	.85	5.0	605
1.0	1.8	7.0	1,140
1.2	4.6		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.01	3.6	27	12	17	47	17	11	3.6	0.75	0.44	0.9
2	0	4.1	22	13	18	42	16	9.2	2.9	.70	.20	35
3	0	4.0	18	13	17	30	16	8.4	2.2	.65	.11	207
4	0	3.3	15	12	14	33	14	7.8	2.0	.55	.07	90
5	0	7.3	15	12	13	42	13	7.0	1.9	.44	.06	22
6	0	17	203	11	300	133	13	6.0	1.8	.49	.20	12
7	0	9.5	84	11	*851	102	14	5.3	1.8	3.2	.12	9.0
8	0	6.0	40	10	105	45	12	4.8	1.9	7.0	3.4	6.0
9	0	4.6	89	10	55	32	*11	4.4	8.7	15	.80	4.1
10	0	3.8	139	10	39	26	10	3.8	5.3	27	.18	3.5
11	0	3.3	48	28	62	*34	11	3.8	26	12	.10	3.2
12	0	3.3	32	*38	79	79	21	3.8	26	118	2.0	2.8
13	0	3.3	240	24	36	128	20	5.8	8.1	*33	1.3	2.6
14	0	3.3	665	18	28	61	*819	16	4.8	18	.40	2.1
15	*a700	*3.3	121	16	28	55	527	9.5	3.6	9.2	.75	2.0
16	*a100	3.3	52	15	27	178	92	7.0	*2.9	5.6	1.7	1.7
17	28	3.5	36	14	25	176	44	5.6	2.4	4.0	180	1.5
18	13	4.0	*36	13	22	79	31	4.6	2.1	2.8	570	1.4
19	8.1	10	35	14	20	140	26	4.0	2.1	2.0	30	1.3
20	6.0	214	25	14	19	132	21	3.6	2.1	1.5	11	1.4
21	4.6	a550	21	12	18	64	19	3.2	2.8	1.0	6.5	.9
22	4.0	a50	19	20	17	77	22	7.6	2.4	.65	4.3	1.4
23	3.6	a30	17	58	18	52	18	46	1.8	.70	3.3	1.1
24	3.5	a25	17	36	35	36	16	33	1.5	1.9	2.6	.85
25	3.5	a25	15	44	69	31	44	22	1.3	1.1	2.0	.85
26	3.2	a20	13	33	40	29	31	*13	1.4	.55	*1.6	1.8
27	2.6	a15	13	*30	34	26	19	9.4	1.0	.33	1.4	1.6
28	2.6	a15	13	27	47	20	17	6.0	.85	.31	1.1	*1.6
29	*2.6	*a180	14	24	-	20	14	5.3	.85	.25	1.0	1.4
30	7.8	48	14	20	-	18	12	4.6	.80	.25	.85	12
31	4.6	-	12	17	-	17	-	4.3	-	.49	.85	-
Total	1,895.91	1,272.5	2,110	629	2,054	1,984	1,960	284.8	144.00	269.41	828.33	433.0
Mean	61.2	42.4	68.1	20.3	73.4	64.0	65.3	9.19	4.80	8.69	26.7	14.4
Cfsm	1.36	0.959	1.54	0.459	1.66	1.45	1.48	0.208	0.108	0.197	0.804	0.328
In.	1.60	1.07	1.78	0.53	1.73	1.67	1.65	0.24	0.12	0.23	0.70	0.6
Calendar year 1954: Max	1,100			Min 0		Mean 34.7		Cfsm 0.785		In. 10.87		
Water year 1954-55: Max	1,100			Min 0		Mean 38.0		Cfsm 0.860		In. 11.68		

Peak discharge (base, 900 cfs).--Oct. 16 (1 p.m.) discharge not determined (15.26 ft); Nov. 21 (time and discharge unknown); Dec. 14 (5:30 a.m.) 1,090 cfs (6.82 ft); Feb. 7 (3:30 a.m.) 1,770 cfs (9.27 ft); Apr. 14 (8 p.m.) 1,930 cfs (9.90 ft); Aug. 18 (3:00 a.m.) 1,330 cfs (7.72 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.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 471.69 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--27 years, 581 cfs.

Extremes.--Maximum discharge during year, 20,900 cfs Oct. 16 (gage height, 25.50 ft); minimum, 13 cfs Oct. 11 (gage height, 1.13 ft); minimum daily, 14 cfs Oct. 10-12.

1928-55: 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.

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)
697	1930	Oct. 2, 1929	15,100	22.44
727	1932	Mar. 6, 1932	13,500	20.98
742	1933	May 30, 1933	8,760	16.54
1002	1944	Apr. 12, 1944	14,400	22.33

The minimum discharge for the water year 1947 has been revised to 19 cfs June 13, 1947 (gage height, 1.13 ft), superseding figure published in WSP 1082.

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 6.7 cfs for municipal supply, about half of which is returned above the station as sewage.

Revisions (water years).--WSP 757: 1929(M). WSP 782: 1934. WSP 822: Drainage area. Revised figures of discharge, in cubic feet per second, for periods in the water years 1930, 1936, and 1943, superseding those published in WSP 697, 802, 972, are given here-with:

1929		1936	
Oct. 1.....	4,370	May 16.....	250
2.....	13,900		
3.....	11,400	1943	
4.....	5,750	Jan. 24.....	606

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October 1929.....	-	13,900	217	1,510	2.52	2.91
Calendar year 1929....	-	14,100	135	823	1.37	18.66
Water year 1929-30....	-	13,900	5	554	0.925	12.55
May 1936.....	7,657	405	82	247	0.412	0.48
Water year 1935-36....	328,236	10,600	22	897	1.50	20.39
Calendar year 1936....	358,227	10,600	22	979	1.63	22.25
January 1943.....	33,113	5,740	208	1,078	1.80	2.06
Water year 1942-43....	229,739	7,740	28	629	1.05	14.28
Calendar year 1943....	209,501	7,740	16	574	0.958	13.02

Haw River at Haw River, N. C.--Continued

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.1	13	6.0	1,460
1.3	25	8.0	2,340
1.5	46	10.0	3,400
1.7	77	12.0	4,600
2.0	140	14.0	6,000
2.5	258	16.0	7,500
3.0	384	19.0	10,300
4.0	705	22.0	13,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	133	573	246	246	590	320	293	131	57	151	169
2	19	125	442	228	238	556	250	238	114	84	103	661
3	16	120	398	286	326	458	240	219	118	57	95	2,100
4	16	147	273	228	333	427	260	226	112	49	79	2,120
5	*18	202	228	226	289	427	308	202	105	45	74	1,500
6	31	226	1,110	228	a2,500	822	263	199	101	168	67	900
7	22	250	981	236	a9,000	792	233	180	97	91	56	458
8	20	160	792	269	a3,600	573	248	199	154	130	180	308
9	15	127	758	221	1,970	458	240	133	192	155	252	233
10	14	125	1,120	190	1,220	398	223	142	149	326	223	209
11	14	138	758	351	1,050	427	246	149	164	427	207	174
12	14	103	622	556	1,200	845	328	151	388	534	180	174
13	16	108	1,470	442	845	819	346	155	346	804	89	160
14	*23	112	a4,500	358	622	606	5,070	344	270	729	410	125
15	6,250	103	2,560	288	490	524	7,550	442	167	320	1,890	138
16	13,900	110	1,920	358	474	796	3,190	442	148	203	2,450	149
17	*7,720	118	1,440	221	442	1,280	1,700	346	125	153	3,870	144
18	2,890	127	810	211	412	915	1,080	258	105	129	7,460	138
19	1,070	182	775	250	346	1,080	744	199	105	133	5,210	105
20	556	838	606	326	371	1,240	556	190	93	93	2,520	83
21	338	1,380	524	284	328	915	398	169	99	74	1,100	110
22	245	524	412	307	273	985	442	255	110	101	639	101
23	204	606	346	578	286	890	384	216	156	68	358	87
24	176	758	358	556	565	672	384	676	170	56	238	127
25	122	639	358	573	1,100	556	707	672	168	65	192	68
26	127	490	358	507	758	490	722	*532	103	74	*169	108
27	101	346	290	442	622	490	656	428	130	79	167	149
28	110	316	253	427	590	398	*458	300	112	81	129	133
29	*140	784	270	398	-	310	526	204	103	70	122	108
30	142	639	185	412	-----	333	296	183	105	117	136	125
31	171	--	204	326	-----	346	-----	153	-----	160	125	-----
Total	34,522	10,034	25,394	10,528	30,496	20,408	28,168	9,175	4,440	5,632	28,941	11,164
Mean	1,114	334	819	340	1,089	658	939	296	148	182	934	372
Cfsm	1.86	0.558	1.37	0.568	1.82	1.10	1.57	0.494	0.247	0.304	1.56	0.621
In.	2.14	0.62	1.58	0.65	1.89	1.27	1.75	0.57	0.28	0.35	1.80	0.69

Calendar year 1954: Max 13,900 Min 14 Mean 506 Cfsm 0.845 In. 11.46
 Water year 1954-55: Max 13,900 Mean 600 Cfsm 1.00 In. 13.59

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for Pittsboro.

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 1955.

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.--27 years, 1,238 cfs.

Extremes.--Maximum discharge during year, 37,900 cfs Oct. 16 (gage height, 20.00 ft); minimum, 5.6 cfs Oct. 11 (gage height, 1.26 ft); minimum daily, 14 cfs Oct. 10.

1928-55: Maximum discharge, 79,000 cfs during night of Sept. 18, 1945, corrected (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, 98,000 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).

Revisions.--The maximum discharge for the water year 1929 has been revised to 31,200 cfs Mar. 5, 1929 (gage height, 18.4 ft, from graph based on gage readings), superseding figure published in WSP 862.

The figures of minimum 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)
742	1933	Sept. 30, 1933	8	1.31
757	1934	Oct. 1, 1933	8	1.31
802	1936	Oct. 28, 1935	13	1.40
922	1941	Sept. 26, 1941	12	1.39
952	1942	Oct. 16, 1941	9	1.34
		Nov. 12, 1941		
972	1943	Aug. 25, 1943	22	1.53
1002	1944	Sept. 12, 1944	15	1.43
1052	1946	Sept. 18, 1946	18	1.47
1082	1947	Sept. 14, 1947	11	1.37

Remarks.--Records good. Considerable diurnal fluctuation and some regulation for short periods at low flow caused by powerplants above station.

Revisions.--WSP 822: Drainage area. Revised figures of discharge, in cubic feet per second, for periods in the water years 1931, 1933-34, 1937, and 1948, superseding those published in WSP 712, 742, 757, 822, and 1112, are given herewith:

July 13, 1931.....	344	July 16, 1937.....	1,050
Oct. 27, 1932.....	276	July 1, 1948.....	739
Mar. 7, 1934.....	2,700	July 24, 1948.....	867

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
July 1931.....	-	2,580	152	719	0.549	0.63
Water year 1930-31.....	-	11,900	22	948	.724	9.82
Calendar year 1931.....	-	11,900	24	914	.698	9.45
October 1932.....	-	10,800	46	1,290	.982	1.13
Calendar year 1932.....	-	21,900	30	1,365	1.05	14.18
Water year 1932-33.....	-	12,500	18	1,182	.902	12.24
March 1934.....	-	9,930	318	2,210	1.69	1.95
Water year 1933-34.....	-	25,000	18	1,111	.848	11.51
Calendar year 1934.....	-	25,000	38	1,363	1.04	14.13
July 1937.....	21,593	3,020	178	697	.532	.61
Water year 1936-37.....	673,380	18,600	169	1,845	1.41	19.12
Calendar year 1937.....	632,799	18,600	169	1,734	1.32	17.97
July 1948.....	11,043	867	99	356	.272	.31
Water year 1947-48.....	499,948.2	17,300	7.3	1,366	1.04	14.17
Calendar year 1948.....	572,823.2	24,600	7.3	1,565	1.19	16.26

Haw River near Pittsboro, N. C.--Continued

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.4	13	4.0	1,360
1.6	28	5.0	2,280
1.8	52	7.0	4,560
2.1	108	9.0	7,600
2.4	212	12.0	13,100
2.7	379	15.0	19,700
3.0	580	17.0	26,000
3.5	950	20.0	37,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	147	1,110	360	725	1,270	636	263	318	198	582	359
2	32	176	912	261	688	1,150	580	511	229	121	414	1,870
3	16	256	748	530	538	1,030	294	615	206	142	264	3,780
4	27	189	643	623	485	912	504	371	89	63	226	4,560
5	*41	231	457	613	594	875	608	241	18	35	222	2,440
6	26	530	3,290	362	2,860	905	622	280	81	42	116	1,740
7	21	348	2,880	232	17,400	1,400	514	257	186	58	124	1,070
8	23	438	1,610	418	*5,410	1,110	521	284	231	210	137	778
9	26	460	1,320	239	3,550	920	580	267	205	230	73	594
10	14	211	1,880	412	2,310	808	227	375	188	470	307	532
11	19	209	1,560	699	4,250	702	378	247	142	1,360	293	200
12	51	217	1,110	1,010	4,720	886	491	273	186	1,360	297	257
13	27	150	1,150	1,030	1,970	1,150	650	241	391	1,440	534	454
14	30	206	2,800	770	1,560	1,190	5,180	164	425	1,270	335	461
15	6,550	209	5,230	658	1,230	982	14,000	328	349	860	5,310	259
16	34,200	231	3,100	444	1,070	982	6,080	615	275	608	3,320	162
17	12,200	*227	2,110	622	998	1,800	2,990	594	209	209	6,800	87
18	4,440	210	1,440	629	920	1,660	1,970	539	146	145	20,800	112
19	2,040	215	1,360	376	792	1,700	1,440	412	178	318	8,050	171
20	985	997	1,230	470	665	2,310	1,150	231	194	293	3,910	255
21	680	3,120	966	636	785	1,840	920	145	74	197	1,970	214
22	525	1,470	860	615	710	1,520	770	175	167	253	1,230	193
23	451	890	688	680	658	1,700	729	3,890	181	109	875	241
24	301	966	552	1,440	755	*1,230	575	1,790	201	84	615	149
25	199	1,070	580	1,360	3,210	1,030	1,190	1,230	189	129	498	135
26	296	890	566	1,320	2,000	890	1,560	966	195	73	471	208
27	122	672	566	1,150	1,440	778	1,110	762	289	154	302	265
28	113	464	629	1,110	1,360	838	942	622	255	158	178	269
29	166	1,380	615	942	-	732	785	318	215	182	*166	232
30	334	1,740	*560	800	-----	608	658	398	200	111	197	242
31	219	---	488	838	-----	636	-----	543	---	242	241	-
Total	64,208	18,519	50,010	21,647	64,653	35,544	48,654	17,945	6,210	11,124	58,857	22,389
Mean	2,071	617	1,613	698	2,309	1,147	1,622	579	207	359	1,899	746
Cfs/m	1.58	0.47	1.23	0.53	1.76	0.88	1.24	0.44	0.16	0.27	1.45	0.57
In.	1.82	0.53	1.42	0.61	1.84	1.01	1.38	0.51	0.18	0.32	1.67	0.64
Calendar year 1954: Max	34,200				Min 7.3		Mean 1,034	Cfs/m 0.79	In. 10.72			
Water year 1954-55: Max	34,200				Min 14		Mean 1,150	Cfs/m 0.88	In. 11.93			

Peak discharge (base, 17,000 cfs).--Oct. 16 (12 m.) 37,900 cfs (20.00 ft); Feb. 7 (6 a.m.) 21,100 cfs (15.49 ft); Apr. 15 (3 a.m.) 17,000 cfs (13.92 ft); Aug. 18 (6 a.m.) 23,700 cfs (16.27 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 8½ miles east of Pittsboro, Chatham County.

Drainage area.--285 sq mi.

Records available.--January 1949 to September 1955.

Gage.--Water-stage recorder. 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.--6 years, 228 cfs.

Extremes.--Maximum discharge during year, 3,110 cfs Aug. 20 (gage height, 16.10 ft); minimum, 2.6 cfs Oct. 9-13.

1949-55: 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 3.9 cfs sewage effluent into basin above station, diverted from Neuse River during the water year 1955.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 9					Feb. 10 to Apr. 17 Apr. 27 to Sept. 30					Apr. 18-27				
2.3	2.6	4.0	123		2.3	2.6	5.0	230		3.1	75			
2.4	6.7	5.0	216		2.4	7.0	6.0	355		3.3	88			
2.5	13	7.0	459		2.5	13	8.0	685		3.5	100			
2.6	20	10.0	1,000		2.6	21	10.0	1,080		4.0	137			
3.0	57	13.0	1,760		3.0	57	12.0	1,480		5.0	230			
3.5	82	15.0	2,500		3.5	82	14.0	2,100		7.0	504			
					4.0	128	16.0	3,050		9.0	885			
										11.0	1,280			

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	16	186	43	128	575	*62	43	12	6.6	31	195
2	4.0	17	154	41	110	397	59	38	11	6.1	36	1,540
3	7.2	14	99	44	104	313	58	35	10	5.2	21	1,760
4	5.7	13	67	49	92	246	*57	*33	8.8	5.2	17	2,060
5	4.4	13	56	49	77	210	53	31	8.2	5.2	20	1,640
6		40	262	44	232	195	49	29	7.0	*4.8	15	1,200
7	3.2	81	552	42	1,470	190	51	28	7.0	4.8	11	492
8	3.2	98	552	40	*1,800	174	62	25	7.0	4.8		170
9	3.2	62	459	38	2,400	159	68	22	7.0	16	8.3	68
10	2.9	58	430	35	2,050	125	60	*18	7.0	35	19	83
11	2.9	28	354	52	1,420	104	50	17	7.6	26	29	51
12	2.9	20	282	132	1,340	94	48	15	8.2	33	17	49
13	2.9	18	201	196	1,740	109	54	15	*8.8	52	14	43
14	3.2	17	204	164	2,330	225	*264	16	11	67	26	*37
15	16	16	372	114	1,740	252	865	19	12	65	36	31
16	427	15	430	76	1,030	230	1,090	31	10	49	38	26
17	*450	14	366	*65	475	246	1,260	28	8.8	28	108	24
18	254	13	318	59	332	290	1,220	21	7.6	16	893	21
19	154	*13	226	56	258	411	639	18	7.0	12	2,180	19
20	69	17	159	56	210	498	260	16	7.6	11	2,810	20
21	38	39	123	62	180	472	*153	15	14	37	1,840	33
22	28	84	95	67	159	426	114	14	21	56	801	31
23	20	118	*76	177	139	351	*94	17	19	19	150	26
24	16	92	66	330	142	248	*82	42	12	15	65	21
25	13	67	62	444	*480	*174	*75	67	11	11	47	22
26	*12	62	57	459	700	129	88	63	10	9.4	37	82
27	10	56	52	430	825	107	141	36	8.8	8.2	31	114
28	9.5	45	47	366	845	91	*93	22	8.2	8.2	25	65
29	9.5	55	45	288	-	*73	63	17	8.2	7.6	*20	*43
30	10	128	*45	216	-----	*67	51	15	7.6	7.0	19	35
31	13	-----	43	168	-----	64	-----	14	-----	8.8	18	-----
Total	1,601.9	1,309	6,440	4,402	22,808	7,243	7,283	817	291.4	619.9	9,592.2	9,801
Mean	51.7	43.6	208	142	815	234	243	26.4	9.71	20.0	303	327
Cfs/m	0.181	0.153	0.730	0.498	2.86	0.821	0.853	0.093	0.034	0.070	1.06	1.15
In.	0.21	0.17	0.84	0.57	2.98	0.95	0.95	0.11	0.04	0.08	1.23	1.28

Calendar year 1954: Max 6,580 Min 2.6 Mean 228 Cfs/m 0.800 In. 10.86
Water year 1954-55: Max 2,810 Min 2.9 Mean 197 Cfs/m 0.691 In. 9.41

Peak discharge (base, 2,500 cfs).--Aug. 20 (2 a.m.) 3,110 cfs (16.10 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 1955.

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.--30 years, 31.7 cfs.

Extremes.--Maximum discharge during year, 3,120 cfs Oct. 15 (gage height, about 13.9 ft, from estimated gage-height graph); minimum, 1.0 cfs Oct. 7, 8 (gage height, 2.32 ft). 1923-26, 1928-55: 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.

Revisions.--Figures of maximum discharge for the water years 1924 and 1931 have been revised to 1,160 cfs Sept. 29, 1924 (gage height, 10.5 ft) and 778 cfs Aug. 22, 1931 (gage height, 8.95 ft), superseding figures published in WSP 582 and 712.

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

Revisions (water years).--WSP 852: Drainage area, WSP 922: 1928-29(M), 1933(M), 1936(M). Revised figures of discharge, in cubic feet per second, for periods in the water years 1924-25, 1930-31, 1947, superseding those published in WSP 582, 602, 697, 712, and 1082, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1923		1925		1930	
Dec. 14	43	Apr. 15	14	Jan. 30	13
		June 10	7	31	18
1924		11	7		
Mar. 20	85	Aug. 19	8	1931	
21	138	20	7	July 7	121
Apr. 18	266	21	7		
Sept. 28	72	22	7	1947	
29	616	23	6	July 7	14
30	569	24	6		

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1923.....	-	122	20	31.3	0.948	1.09
March 1924.....	-	157	20	45.2	1.37	1.58
April.....	-	326	15	65.9	2.00	2.23
September.....	-	616	6.5	66.8	2.02	2.26
Water year 1923-24.....	-	621	4.6	40.2	1.22	16.59
Calendar year 1924.....	-	621	4.6	40.8	1.24	16.82
April 1925.....	-	36	12	17.3	.524	.59
June.....	-	53	6	12.0	.364	.40
August.....	-	332	2	23.2	.703	.81
Water year 1924-25.....	-	870	2	33.8	1.02	13.87
Calendar year 1925.....	-	870	2	31.0	.939	12.72
January 1930.....	-	240	8.3	33.0	1.03	1.19
Water year 1929-30.....	-	954	1.8	27.9	.869	11.78
July 1931.....	-	160	3.8	23.5	.732	.84
Water year 1930-31.....	-	395	-	28.2	.879	11.92
Calendar year 1931.....	-	395	2.7	25.7	.801	10.87
July 1947.....	258.5	46	2.8	8.34	.260	.30
Water year 1946-47.....	11,914.4	2,000	2.8	32.6	1.02	13.81
Calendar year 1947.....	13,523.0	2,000	2.8	37.0	1.15	15.67

West Fork Deep River near High Point, N. C.--Continued

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.3	0.8	4.0	61
2.4	1.7	4.5	116
2.5	3.1	5.0	193
2.6	4.9	6.0	318
2.8	9.9	8.0	518
3.0	16	10.0	950
3.3	27	11.0	1,510
3.6	40		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	7.2	25	17	17	29	16	13	7.5	4.9	7.7	6.4
2	1.7	9.1	20	19	20	24	16	12	7.5	4.9	5.5	12
3	1.6	8.9	18	16	17	21	16	12	7.7	4.7	5.3	61
4	1.5	8.3	16	16	15	22	15	12	7.5	4.9	5.4	20
5	1.4	20	22	15	15	56	14	11	7.2	47	5.3	13
6	1.4	12	263	15	460	96	16	10	6.6	8.0	7.2	11
7	1.2	9.9	46	14	458	36	31	10	6.4	26	5.8	9.1
8	1.2	9.1	28	14	67	26	*17	9.9	7.7	94	90	7.5
9	1.7	8.8	70	14	42	22	15	9.1	7.5	15	19	6.9
10	2.0	8.3	51	13	32	20	14	9.4	7.5	9.9	8.3	6.9
11	1.8	8.3	29	50	113	20	16	9.4	16	*9.9	7.5	6.6
12	1.7	8.3	23	25	49	22	31	9.4	9.9	10	6.6	8.6
13	1.6	8.0	335	20	30	19	46	23	7.2	9.4	5.7	6.9
14	1.7	7.7	486	17	26	22	679	18	6.6	8.0	384	6.4
15	1.310	7.7	*67	17	25	21	199	13	6.4	6.9	430	6.2
16	337	7.7	39	16	24	34	52	11	6.0	6.2	28	6.2
17	21	26	30	14	23	31	33	12	*5.7	5.7	512	6.0
18	a15	17	56	14	20	34	28	12	6.0	5.3	534	5.5
19	a12	47	37	16	19	52	24	9.9	7.2	4.9	38	5.3
20	a9	69	27	16	18	42	21	9.3	8.3	7.2	20	5.3
21	a8	434	22	16	17	33	19	9.3	6.2	5.5	14	4.9
22	a7	48	20	29	17	45	17	38	6.0	4.9	12	4.9
23	a6	46	19	34	19	29	16	*106	6.0	4.4	*11	5.1
24	a5	44	19	51	86	24	28	19	5.7	4.2	9.9	5.3
25	a6	28	17	*29	60	22	47	14	7.3	4.7	8.6	10
26	*6.6	21	16	?	33	24	22	12	12	4.1	8.3	9.1
27	6.4	18	17	28	31	19	18	10	6.2	4.4	7.7	6.2
28	6.2	27	17	24	30	18	16	9.6	5.7	129	7.5	6.2
29	13	166	22	22	-	18	15	9.4	5.5	22	6.9	6.0
30	9.4	34	19	19	-----	17	14	8.6	5.1	7.7	6.4	13
31	8.0	-----	16	16	-----	16	-----	8.0	-----	9.9	6.2	-----
Total	1,807.9	1,175.3	1,892	631	1,783	914	1,511	479.3	218.1	493.6	2,222.8	287.5
Mean	58.3	39.2	61.0	20.4	63.7	29.5	50.4	15.5	7.27	15.9	71.7	9.58
Cfsm	1.82	1.22	1.90	0.636	1.98	0.919	1.57	0.463	0.226	0.495	2.23	0.298
In.	2.09	1.36	2.19	0.73	2.07	1.06	1.75	0.56	0.25	0.57	2.58	0.33

Calendar year 1954: Max 1,310 Min 1.2 Mean 36.0 Cfsm 1.12 In. 15.23
 Water year 1954-55: Max 1,310 Min 1.2 Mean 36.8 Cfsm 1.15 In. 15.54

Peak discharge (base, 700 cfs).--Oct. 15 (4 p.m.) 3,120 cfs (13.9 ft); Dec. 13 (10 p.m.) 790 cfs (9.43 ft); Feb. 6 (8 p.m.) 1,260 cfs (10.86 ft); Apr. 14 (10 a.m.) 1,460 cfs (11.34 ft); Aug. 14 (5 p.m.) 894 cfs (9.80 ft); Aug. 17 (8 p.m.) 1,560 cfs (11.47 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.

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 (revised).

Records available.--July 1928 to September 1955.

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.--27 years, 14.7 cfs.

Extremes.--Maximum discharge during year, 3,410 cfs Oct. 15 (gage height, 6.77 ft); minimum,

1.1 cfs Oct. 7 (gage height, 0.18 ft).

1928-55: 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, that of 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.--Revised figures of discharge, in cubic feet per second, for a period in the water year 1941, superseding those published in WSP 922, is given herewith:

Mar. 28, 1941..... 117

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
March 1941.....	451.7	117	5.7	14.6	0.993	1.14
Water year 1940-41.....	3,668.7	255	1.6	10.1	.667	9.28
Calendar year 1941....	2,735.7	124	1.6	7.50	.510	6.93

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.1	0.6	1.6	154
.2	1.6	2.0	280
.3	3.0	2.5	470
.4	5.0	2.8	630
.6	11	3.0	790
.8	21	3.3	1,100
1.0	38	3.6	1,330
1.3	82	4.0	1,535

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	3.8	9.6	6.8	7.3	13	7.1	6.0	4.4	3.2	4.4	4.0
2	1.5	4.6	8.3	7.3	8.3	11	7.1	5.8	4.4	3.2	3.4	11
3	1.5	4.6	7.1	6.8	7.3	10	7.1	5.8	4.2	3.0	2.9	62
4	1.5	4.2	6.6	6.6	6.8	10	6.8	5.8	4.4	9.0	2.7	17
5	1.5	8.3	10	6.6	6.6	13	6.6	5.5	4.2	5.8	2.9	9.3
6	1.5	5.3	89	6.6	302	17	9.1	5.8	4.0	3.6	2.9	7.1
7	1.2	4.6	17	6.0	104	11	11	5.5	4.0	7.1	2.7	6.0
8	1.5	4.4	11	5.8	27	9.6	7.1	5.5	4.0	6.9	8.7	5.8
9	1.7	4.4	33	3.8	18	9.0	6.8	5.3	4.2	4.0	4.6	5.3
10	1.7	4.2	20	5.8	14	8.3	6.6	5.3	4.2	4.2	3.4	4.8
11	1.6	4.2	12	21	46	8.3	7.1	4.6	5.8	5.5	3.2	4.6
12	1.6	4.2	10	11	19	9.6	10	4.6	4.2	4.8	3.0	4.4
13	1.6	4.2	178	8.6	12	8.6	12	9.5	4.0	4.2	2.9	4.6
14	1.6	4.0	*88	7.3	11	10	246	6.6	4.0	4.0	136	4.2
15	935	4.0	25	7.1	11	9.6	64	5.5	4.0	3.6	98	4.0
16	26	4.0	16	6.8	10	18	20	5.0	*3.8	3.4	10	4.0
17	9.0	13	13	6.6	9.6	15	14	9.1	3.6	3.2	578	3.8
18	6.3	6.8	28	6.3	8.6	16	12	6.3	3.4	3.0	64	3.8
19	5.8	7.1	17	7.3	8.3	28	10	4.8	4.0	2.9	16	3.8
20	5.3	46	11	6.8	7.9	19	9.0	4.6	4.2	5.3	8.6	3.6
21	4.8	74	9.6	6.8	7.6	15	8.3	4.6	3.6	3.6	6.3	3.4
22	4.6	14	8.6	14	7.3	20	7.3	19	3.6	3.2	5.3	3.6
23	4.2	19	8.3	16	7.9	13	6.8	24	4.0	2.9	*5.3	3.6
24	4.0	17	7.6	15	47	11	11	7.6	3.8	2.9	4.8	3.8
25	3.8	11	6.8	*14	26	9.6	16	6.3	6.9	3.2	4.2	6.7
26	*3.8	8.6	6.8	11	15	10	9.3	5.5	5.0	2.7	4.0	4.8
27	a4	7.3	6.6	12	14	8.6	8.3	5.3	3.6	3.4	4.0	4.0
28	a4	16	6.0	10	15	8.3	7.3	4.8	3.6	3.2	4.0	4.0
29	a7	42	9.0	9.6	-	7.9	6.8	4.8	3.4	8.3	3.8	3.8
30	4.4	12	7.6	8.6	-	7.6	6.6	4.8	3.4	4.6	3.8	23
31	4.0	-	6.8	7.3	-	7.3	-	4.6	-	7.1	4.0	-
Total	1,057.6	366.8	693.9	277.2	784.5	372.3	567.1	208.2	123.9	163.8	1,007.8	233.8
Mean	34.1	12.2	22.4	8.94	28.0	12.0	18.9	6.72	4.13	5.28	32.5	7.79
Cfsm	2.32	0.829	1.52	0.608	1.90	0.816	1.29	0.457	0.281	0.359	2.21	0.530
In.	2.68	0.93	1.76	0.70	1.98	0.94	1.43	0.53	0.31	0.41	2.55	0.59

Calendar year 1954: Max 935 Min 1.2 Mean 15.7 Cfsm 1.07 In. 14.54

Water year 1954-55: Max 935 Min 1.2 Mean 16.0 Cfsm 1.09 In. 14.81

Peak discharge (base, 800 cfs).--Oct. 15 (4 p.m.) 3,410 cfs (6.77 ft); Feb. 6 (5 p.m.) 1,130 cfs (5.33 ft); Apr. 14 (5 a.m.) 1,260 cfs (5.48 ft); Aug. 17 (4 p.m.) 1,920 cfs (4.50 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 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, 4½ miles upstream from Muddy Creek, and 7 miles north of Randleman, Randolph County.

Drainage area.--124 sq mi.

Records available.--October 1928 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 638.11 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--27 years, 119 cfs.

Extremes.--Maximum discharge during year, 7,900 cfs Oct. 15 (gage height, 23.48 ft); minimum, 3.5 cfs May 3 (gage height, 1.59 ft); minimum daily, 4.6 cfs Oct. 1, 3.

1928-55: 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 1½ miles upstream; minimum, 0.5 cfs Nov. 28, 1931 (gage height, 1.41 ft); minimum daily, 1.2 cfs Nov. 12, 1933.

Remarks.--Records good except those for period of 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 into Rich Fork Creek in Pee Dee River basin.

Revisions (water years).--WSP 782: 1929-30. Revised figures of discharge, in cubic feet per second, for periods in the water years 1934, 1935, and 1941, superseding those published in WSP 757, 782, and 922, are given herewith:

Feb. 17, 1934.....	18.3
Nov. 24, 1934.....	142
Dec. 26, 1940.....	111
Feb. 16, 1941.....	87

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
February 1934.....	-	2,560	12.7	159	1.28	1.34
Water year 1933-34.....	-	2,560	1.2	107	.863	11.71
November 1934.....	-	588	8.0	55.1	.444	.50
Calendar year 1934.....	-	2,560	6.4	124	1.00	13.61
Water year 1934-35.....	43,868.0	2,230	4.0	120	.968	13.15
December 1940.....	2,878	336	24	92.8	.748	.86
Calendar year 1940.....	48,007.0	4,640	7.8	131	1.06	14.40
February 1941.....	1,619	173	27	57.8	.466	.49
Water year 1940-41.....	30,075.3	1,850	4.4	82.4	.665	9.01
Calendar year 1941.....	22,380.1	1,850	4.3	61.3	.494	6.71

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	15	86	42	51	113	54	41	26	10	42	a150
2	15	17	88	51	68	93	51	79	15	8.9	38	a500
3	4.6	44	40	80	51	97	51	21	25	9.2	22	a800
4	15	40	65	33	60	93	56	49	14	17	10	a400
5	4.9	54	35	55	61	85	33	34	23	8.5	24	a100
6	*8.6	60	662	36	1,520	245	56	45	13	9.6	15	a60
7	8.4	27	228	68	2,080	173	113	28	15	17	20	a50
8	20	45	128	25	367	114	81	26	22	19	17	a30
9	9.3	24	177	26	204	87	45	19	12	68	93	a40
10	20	20	234	53	162	54	42	44	13	31	39	a25
11	5.5	20	136	154	309	80	36	24	36	*13	25	a25
12	14	23	74	137	296	80	128	21	32	41	29	a20
13	4.9	14	1,050	72	137	50	103	28	14	32	23	a20
14	15	17	*1,520	77	141	100	3,240	52	13	34	1,350	
15	3,260	39	342	45	91	86	942	41	22	26	2,270	
16	2,600	23	180	45	96	75	306	19	12	20	258	
17	139	32	142	45	104	126	185	47	18	14	1,470	
18	83	63	164	53	84	145	168	34	13	9.6	2,560	
19	45	36	168	55	76	186	125	40	25	17	310	
20	45	81	128	77	52	200	88	26	12	78	86	a18
21	26	488	73	35	55	162	93	19	17	43	74	
22	23	183	84	92	65	204	79	64	13	27	74	
23	21	114	75	124	65	157	62	*359	18	11	64	
24	20	131	72	152	177	115	103	130	11	26	50	
25	25	114	36	*130	294	77	347	49	11	20	73	
26	*39	61	43	106	164	94	159	52	23	16	47	
27	17	53	77	124	118	58	87	28	11	19	30	
28	14	48	48	112	140	86	*74	34	18	249	a30	*19
29	30	365	69	92	-	51	57	43	11	713	a30	12
30	22	154	80	60	-----	54	53	17	19	88	a25	51
31	18	---	57	78	-----	61	-----	21	-----	50	a25	---
Total	6,574.8	2,407	6,361	2,334	7,088	3,401	7,017	1,534	527	1,744.8	9,223	2,554
Mean	212	80.2	205	75.3	253	110	234	49.5	17.6	56.3	298	85.1
Cfsm	1.71	0.647	1.65	0.607	2.04	0.887	1.89	0.399	0.142	0.454	2.40	0.686
In.	1.97	0.72	1.91	0.70	2.13	1.02	2.10	0.46	0.16	0.52	2.77	0.77
Calendar year 1954: Max	3,260			Min 3.8		Mean 122		Cfsm 0.984		In. 13.38		
Water year 1954-55: Max	3,260			Min 4.6		Mean 139		Cfsm 1.12		In. 15.23		

Peak discharge (base, 2,600 cfs).--Oct. 15 (8 p.m.) 7,900 cfs (23.48 ft); Dec. 13 (11 p.m.) 2,960 cfs (14.02 ft); Feb. 6 (12 p.m.) 4,550 cfs (18.28 ft); Apr. 14 (2 p.m.) 5,800 cfs (20.56 ft); Aug. 15 (5 a.m.) 4,120 cfs (17.30 ft); Aug. 18 (1 a.m.) 5,100 cfs (19.35 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 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 1½ miles downstream from Sandy Creek.

Drainage area.--346 sq mi.

Records available.--November 1922 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 419.50 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--32 years (1923-55), 343 cfs.

Extremes.--Maximum discharge during year, 34,000 cfs Oct. 15 (gage height, 30.47 ft, from floodmark), from rating curve extended as explained below; minimum, 6.0 cfs June 13 (gage height, 0.39 ft); minimum daily, 7.7 cfs June 12.

1922-55: 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).

Revisions.--The minimum discharge for the water year 1923 has been revised to 16 cfs July 27-28, 1923 (gage height, 0.44 ft), superseding figure published in WSP 562.

Remarks.--Records good except those below 50 cfs, which are fair. 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 1.0 cfs from Pee Dee River basin into this basin above station.

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). Revised figures of discharge, in cubic feet per second, for periods in the water years 1925, 1927, 1930, and 1936, superseding those published in WSP 602, 642, 697, and 802, are given herewith:

1925		1927	
Jan. 1.....	6,600	Mar. 1.....	294
10.....	3,910	1930	
11.....	7,360	June 16.....	90
12.....	5,000		
20.....	5,730	1936	
Feb. 9.....	362	Aug. 1.....	428
Mar. 20.....	517		

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
January 1925.....	-	7,360	251	1,653	4.78	5.51
February.....	-	1,890	198	450	1.30	1.36
March.....	-	1,620	121	320	.925	1.07
Water year 1924-25.....	-	7,360	10	312	.902	12.27
Calendar year 1925.....	-	7,360	10	277	.801	10.88
March 1927.....	-	3,270	111	588	1.70	1.96
Water year 1926-27.....	-	5,520	10	278	.803	10.87
Calendar year 1927.....	-	6,770	24	378	1.09	14.82
June 1930.....	-	598	54	162	.468	.52
Water year 1929-30.....	-	15,500	12	345	.997	13.54
Calendar year 1930.....	-	3,480	8	210	.607	8.22
August 1936.....	8,222	2,980	35	265	.766	.88
Water year 1935-36.....	185,588	10,900	14	507	1.47	19.93
Calendar year 1936.....	217,985	10,900	16	596	1.72	23.42

Deep River at Ramseur, N. C.--Continued

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.4	6.8	2.5	645
.5	16	3.0	930
.6	26	4.0	1,540
.8	53	6.0	2,880
1.0	91	8.0	4,120
1.3	164	11.0	6,220
1.6	258	17.0	11,100
2.0	406	21.0	15,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	84	251	97	204	314	141	118	64	17	236	166
2	14	52	202	98	151	327	138	161	52	14	37	315
3	13	26	169	192	162	204	141	110	38	14	114	2,080
4	13	64	58	176	218	161	157	112	30	14	33	1,420
5	13	95	79	92	67	226	135	48	31	18	40	407
6	13	202	1,770	118	3,200	384	112	69	30	30	42	242
7	15	126	806	113	6,950	469	133	81	32	61	34	214
8	17	132	355	65	1,200	299	220	81	32	76	35	134
9	16	84	275	100	597	221	133	125	128	95	99	98
10	16	68	597	154	430	202	116	70	40	276	34	46
11	15	68	339	276	784	144	116	56	11	711	130	46
12	15	40	252	391	1,100	185	182	47	7.7	381	147	93
13	15	40	1,550	270	452	216	238	50	65	252	52	134
14	15	40	4,530	169	347	198	5,580	71	77	70	1,290	60
15	14,200	57	1,190	115	332	254	3,680	102	28	86	5,280	31
16	11,700	54	529	138	298	238	894	145	16	30	724	49
17	856	32	358	170	236	328	480	90	9.6	30	3,010	31
18	244	50	328	130	201	392	361	60	*8.6	48	6,090	32
19	171	120	430	150	216	458	617	52	19	37	852	103
20	202	85	314	216	207	565	270	53	254	98	284	100
21	101	381	249	166	190	395	169	57	78	145	151	31
22	87	437	219	130	167	471	188	117	34	115	166	32
23	69	218	161	358	180	407	167	1,610	93	16	*134	30
24	73	152	177	403	306	282	154	393	338	28	103	30
25	50	168	167	406	961	242	619	215	83	125	77	32
26	*29	164	105	390	453	207	355	116	40	56	79	109
27	84	113	170	347	328	204	229	111	58	32	40	247
28	71	130	153	391	327	195	149	81	77	24	50	178
29	52	678	147	293	-	180	156	60	32	653	81	134
30	38	439	141	258	-----	149	130	94	18	384	51	33
31	71	-	176	241	-----	104	-----	137	-----	344	52	-
Total	28,300	4,379	16,247	6,613	20,264	8,621	15,860	4,692	1,823.9	4,480	19,545	6,657
Mean	913	146	524	213	724	278	529	151	60.8	145	630	222
Cfsm	2.64	0.422	1.51	0.616	2.09	0.803	1.53	0.436	0.176	0.419	1.82	0.642
In.	3.04	0.47	1.75	0.71	2.18	0.93	1.70	0.50	0.20	0.48	2.10	0.72

Calendar year 1954: Max 14,200 Min 6.0 Mean 356 Cfsm 0.971 In. 13.18
 Water year 1954-55: Max 14,200 Min 7.7 Mean 317 Cfsm 1.09 In. 14.78

Peak discharge (base, 6,000 cfs).--Oct. 15 (about 7 p.m.) 34,000 cfs (30.47 ft); Dec. 14 (5 a.m.) 6,220 cfs (11.00 ft); Feb. 6 (12 p.m.) 11,400 cfs (17.32 ft); Apr. 14 (10 p.m.) 10,000 cfs (15.78 ft); Aug. 15 (6 a.m.) 8,580 cfs (14.04 ft); Aug. 17 (11 p.m.) 9,220 cfs (14.79 ft).

* Discharge measurement made on this day.

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 1955.

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.--16 years, 143 cfs.

Extremes.--Maximum discharge during year uncertain, occurred Oct. 15 (gage height, 27.52 ft); minimum daily, 0.1 cfs Oct. 12-14.

1939-55: Maximum discharge occurred Sept. 18, 1945 (gage height, 32.02 ft, from floodmarks), discharge uncertain, figure previously published believed to be too low; 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 fair except those for period of indefinite stage-discharge relation, which are poor. Diversion of about 300,000 gal daily, from the gage pool, for municipal water supply of town of Robbins is included in these records.

Rating tables, water year 1954-55, except period of indefinite state-discharge relation (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 16, Oct. 18 to Dec. 5,
Feb. 7, 8, July 12-19)

Oct. 15 to June 17				June 18 to Sept. 30	
1.8	12	7.0	1,920	2.4	12
2.0	23	9.0	2,940	2.6	22
2.3	50	11.0	4,080	2.8	40
2.5	74	15.0	6,400	3.0	69
3.0	165	17.0	8,100	3.3	131
3.5	305	19.0	10,900	4.0	360
4.0	500	21.0	14,400	5.0	880
5.0	970			6.0	1,430

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

Bear Creek at Robbins, N. C.--Continued

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e0.2	24	31	37	69	82	66	35	16	21	106	596
2	e.2	20	25	44	70	79	64	35	14	17	43	712
3	e.5	19	23	43	66	69	76	31	14	14	26	3,130
4	e.9	18	21	39	57	72	72	30	13	14	*21	658
5	e.4	70	23	37	54	70	61	29	12	14	18	206
6	e.3	83	862	37	1,630	87	*63	27	12	14	17	131
7	*e.2	39	170	46	*2,570	188	76	24	13	17	26	96
8	e.2	29	*87	41	336	80	62	22	14	43	39	81
9	e.2	26	70	37	176	62	54	22	16	53	20	81
10	e.2	24	90	37	129	57	52	21	17	54	21	63
11	e.2	*22	68	180	1,630	60	55	22	19	468	19	62
12	*e.1	21	55	112	662	613	69	28	22	*470	43	*54
13	e.1	20	71	*67	179	216	67	33	24	629	66	43
14	e.1	19	298	56	138	528	*2,560	78	22	88	80	38
15	*2,700	19	136	51	127	196	533	123	20	*39	256	35
16	*2,530	19	82	50	118	251	193	44	17	26	58	31
17	*119	19	63	46	121	332	135	34	e14	20	1,600	28
18	69	23	64	42	127	244	110	30	e14	17	752	26
19	48	25	76	60	103	362	95	29	e16	17	111	29
20	46	25	58	67	92	294	82	28	164	983	64	54
21	37	36	52	67	85	172	72	25	44	158	46	38
22	32	*34	49	130	80	152	66	38	37	44	37	28
23	28	26	47	248	80	119	60	150	159	30	118	24
24	25	29	46	172	*94	101	56	56	162	27	72	24
25	22	30	42	191	168	94	58	*36	62	88	38	26
26	21	26	38	*188	99	90	54	28	188	28	29	46
27	20	23	37	170	82	80	48	23	36	21	24	41
28	19	23	39	172	79	73	44	21	26	19	20	*29
29	28	87	40	121	-	72	41	20	25	193	18	28
30	42	55	41	90	-----	68	37	21	24	543	17	28
31	30	-	37	73	-----	66	-----	20	-----	194	17	-
Total	15,819.8	934	2,841	2,751	9,211	5,029	5,081	1,161	1,236	4,363	3,822	6,526
Mean	510	31.1	91.6	88.7	329	162	169	37.5	41.2	141	123	218
Cfs/m	3.81	0.232	0.684	0.662	2.46	1.21	1.26	0.280	0.307	1.05	0.918	1.63
In.	4.39	0.26	0.79	0.76	2.56	1.40	1.41	0.32	0.34	1.21	1.06	1.81

Calendar year 1954: Max 12,700 Min 0.1 Mean 151 Cfs/m 1.13 In. 15.28
 Water year 1954-55: Max 12,700 Min 0.1 Mean 161 Cfs/m 1.20 In. 16.31

Peak discharge (base, 3,500 cfs).--Oct. 15 (6:30 p.m.) uncertain (27.52 ft); Feb. 7 (12:30 a.m.) 6,330 cfs (14.86 ft); Feb. 11 (6:30 p.m.) 4,200 cfs (11.18 ft); Apr. 14 (3 p.m.) 4,620 cfs (11.90 ft); Aug. 17 (7 p.m.) 4,020 cfs (10.88 ft); Sept. 3 (5 p.m.) 5,880 cfs (14.18 ft).

* Discharge measurement made on this day.

e Stage-discharge relation indefinite; discharge estimated on basis of weather records, stream-flow continuity, and records of tributary inflow.

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 1955. 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.--25 years, 1,405 cfs.

Extremes.--Maximum discharge during year, 26,800 cfs Oct. 16 (gage height, 9.77 ft); minimum, 5.5 cfs Oct. 10 (gage height, 0.35 ft).
1930-55: Maximum discharge, 80,300 cfs Sept. 18, 1945 (gage height, 17.20 ft), from rating curve extended above 66,000 cfs; minimum, that of Oct. 10, 1954.

Remarks.--Records good except those below 250 cfs, which are fair. Diurnal fluctuation and considerable regulation at low flow caused by small powerplants above station.

Revisions (water years).--WSP 822: Drainage area. WSP 1082: 1930-46 (1943-46 not previously published). See also Records available.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.3	4.0	2.0	621
.4	7.6	2.5	1,110
.5	13	3.0	1,800
.6	19	4.0	3,740
.8	40	5.0	6,240
.9	57	6.0	9,340
1.2	139	7.0	13,200
1.5	276	9.0	22,200
1.7	398		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	139	1,160	379	870	960	534	453	206	101	1,460	1,090
2	29	183	726	334	781	900	557	322	122	92	860	5,850
3	22	196	565	365	726	840	489	432	170	72	589	12,400
4	17	245	437	322	655	772	541	366	182	77	385	15,500
5	14	224	426	293	605	681	511	305	95	70	234	13,600
6	10	206	4,170	392	3,080	647	519	288	95	61	192	4,180
7	8	360	6,520	353	16,500	870	526	282	129	82	101	1,310
8	*6.5	426	2,600	328	15,600	1,330	526	192	116	183	147	930
9	6	347	1,300	293	11,300	990	426	129	92	250	162	763
10	5	299	1,060	305	2,510	781	474	260	87	706	116	638
11	6.5	271	1,110	293	4,240	673	474	206	90	1,720	103	549
12	7.5	234	1,020	900	11,200	1,440	439	250	98	4,200	143	474
13	7.5	98	754	1,210	4,940	3,850	467	215	72	4,840	192	419
14	6	253	3,050	850	1,930	2,400	4,210	229	72	2,020	335	405
15	10,000	166	6,950	647	1,430	2,800	12,800	206	82	754	4,110	385
16	18,700	116	2,800	557	1,270	1,830	12,100	288	84	439	6,400	328
17	*21,100	224	1,370	474	1,130	3,410	3,630	322	82	322	5,570	311
18	22,200	210	970	385	1,040	2,800	1,820	379	82	219	15,500	322
19	9,650	178	870	405	940	2,900	1,270	360	72	126	11,800	250
20	992	385	890	474	840	3,850	1,060	229	1,110	138	3,850	224
21	497	557	800	511	772	2,700	900	147	1,310	2,920	1,070	255
22	340	474	698	638	735	1,940	781	98	526	1,240	673	322
23	299	655	597	1,400	698	1,580	673	1,340	372	519	891	340
24	353	621	557	2,030	684	1,350	581	2,390	366	379	2,260	260
25	334	426	467	2,220	1,310	1,060	511	1,160	647	282	1,060	210
26	260	353	405	2,310	2,080	920	660	638	482	166	573	174
27	215	379	372	2,150	1,390	800	900	511	412	187	453	241
28	151	334	347	2,040	1,070	735	647	360	276	155	318	328
29	79	478	460	1,800	-	690	511	155	347	404	288	334
30	75	970	426	1,360	-----	655	446	162	234	2,440	266	311
31	84	-	453	1,030	-----	565	-----	234	-----	1,890	276	-
Total	85,513.0	10,007	44,390	27,049	90,306	47,719	49,783	12,908	8,090	27,044	60,357	63,683
Mean	2,758	334	1,432	873	3,225	1,539	1,659	416	270	872	1,947	2,123
Cfsm	1.96	0.237	1.02	0.619	2.29	1.09	1.18	0.295	0.191	0.618	1.38	1.51
In.	2.26	0.26	1.17	0.71	2.38	1.26	1.31	0.34	0.21	0.71	1.59	1.68
Calendar year 1954: Max			22,200	Min	6	Mean	1,367	Cfsm	0.970	In.	13.16	
Water year 1954-55: Max			22,200	Min	6	Mean	1,443	Cfsm	1.02	In.	13.88	

Peak discharge (base, 15,000 cfs).--Oct. 16 (3 a.m.) 26,800 cfs (9.77 ft); Feb. 7 (4 a.m.) 19,600 cfs (8.53 ft); Aug. 18 (3 a.m.) 20,600 cfs (8.69 ft); Sept. 3 (9 p.m.) 19,100 cfs (8.37 ft).

* Discharge measurement made on this day.

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 15A, 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 1955.

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.--31 years (1924-55), 3,292 cfs.

Extremes.--Maximum discharge during year, 49,900 cfs Oct. 17 (gage height, 18.50 ft); minimum, 11 cfs Oct. 14, 15 (gage height, -0.17 ft).

1923-55: Maximum discharge uncertain, occurred Sept. 19, 1945 (gage height, 33.19 ft, from floodmark); minimum, that of Oct. 14, 15, 1954.

Revisions.--The figures of maximum and minimum discharges 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	Maximum			Minimum		
		Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
582	1924	Sept. 30, 1924	52,400	g18.8	Sept. 5, 1924	55	0.32
602	1925	Jan. 12, 1925	a46,200	g17.6	Sept. 13, 1925	62	.38
622	1926	Jan. 19, 1926	27,300	g13.3	Oct. 9, 13, 1925	75	.46
642	1927	Mar. 7, 1927	33,200	g14.8	Oct. 2, 1926	22	.01
662	1928	Sept. 20, 1928	84,000	g24.8	Oct. 3, 1927	116	.70
682	1929	Mar. 1, 1929	67,700	21.9	Nov. 13, 1928	234	1.06

a Maximum peak discharge; maximum discharge during year, 52,400 cfs at 12:01 a.m.

Oct. 1, 1924, stage falling.

g From graph based on gage readings.

f From floodmark.

Remarks.--Records fair, except those for periods of no gage-height record, which are poor. Records of chemical analyses and water temperatures for the water year 1955 are given in WSP 1400. 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). Revised figures of discharge for the water years 1924-29, 1935, are given herein. Complete tables of daily discharges are given for the water years 1925-29, but only revised discharges are given for other years. They supersede figures published in WSP 582, 602, 622, 642, 662, 682, and 782.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1923		1924-Con.		1924-Con.		1924-Con.	
Dec. 12	1,060	Feb. 10	783	Aug. 18	1,030	Sept. 6	230
13	1,000	June 6	1,050	19	400	7	350
14	995	9	1,030	20	622	8	340
15	418	10	1,030	23	959	9	442
17	1,030	14	1,050	24	769	10	550
18	1,040	15	790	25	910	11	275
20	1,030	22	1,100	26	375	12	350
21	783	July 25	1,080	27	412	13	650
23	1,050	26	1,080	28	720		
24	1,080	30	995	29	418		
		31	830	30	496	1935	
1924		Aug. 1	1,030	31	275	Dec. 20	1,770
Feb. 14	1,050	2	490	Sept. 1	242		
15	1,050	11	1,090	2	375		
16	1,000	12	1,080	3	385		
17	1,050	13	950	4	95		
May 9	755	17	1,030	5	78		

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1923.....	-	3,730	418	1,280	0.372	0.43
February 1924.....	-	27,700	1,000	5,900	1.72	1.85
May.....	-	9,440	755	3,570	1.04	1.19
June.....	-	6,030	790	1,780	.517	.58
July.....	-	22,900	830	4,820	1.40	1.62
August.....	-	19,900	275	2,570	.747	.86
September.....	-	48,700	78	4,530	1.32	1.47
December 1935.....	62,217	14,000	544	1,942	.565	.65
Calendar year 1935.....	1,100,369	30,100	68	3,015	.876	11.89
Water year 1935-36.....	1,923,903	62,900	90	5,257	1.53	20.89

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 15A, 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 1955. 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 daily during periods of backwater.

Average discharge.--26 years (1929-55), 535 cfs.

Extremes.--Maximum discharge during year, 5,370 cfs Sept. 4 (gage height, 17.67 ft); minimum, 38 cfs Oct. 9 (gage height, 1.89 ft).

1928-55: 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, 1928.

Revisions.--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)
727	1932	Mar. 8, 1932	2,900
822	1937	Jan. 30, 1937	4,500
1032	1945	Sept. 18, 1945	13,500

† Not previously published.

Remarks.--Records good except those for periods of backwater from Cape Fear River, which are fair. Records of chemical analyses for the water year 1955 are given in WSP 1400.

Revisions.--WSP 822: Drainage area. Revised figures of discharge, in cubic feet per second, for the water years 1930-33, 1937, 1945, superseding those published in WSP 697, 712, 727, 742, 822, 1032, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1929		1932-Con.		1945	
Oct. 1	3,200	Mar. 9	2,400	Sept. 17	6,100
		Dec. 13	1,000	18	13,000
1931				19	10,000
Jan. 18	575	1937		20	6,000
		Jan. 29	3,750	21	4,500
1932		30	4,470	22	3,500
Mar. 7	2,600	31	4,150	23	2,500
8	2,900				

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October 1929.....	-	10,000	615	2,110	4.59	5.29
Calendar year 1929.....	-	10,000	148	1,060	2.30	31.39
Water year 1929-30.....	-	10,000	73	715	1.55	21.08
January 1931.....	-	975	306	540	1.17	1.35
Water year 1930-31.....	-	4,850	57	458	.996	13.52
Calendar year 1931.....	-	4,850	71	463	1.01	13.66
March 1932.....	-	2,900	306	792	1.72	1.99
Water year 1931-32.....	-	3,540	39	397	.863	11.74
December 1932.....	-	1,670	258	851	1.85	2.13
Calendar year 1932.....	-	3,540	39	448	.974	13.23
Water year 1932-33.....	-	1,670	37	472	1.03	13.91
January 1937.....	52,260	4,470	1,070	1,686	3.67	4.23
Water year 1936-37.....	342,018	4,470	101	937	2.04	27.66
Calendar year 1937.....	242,349	4,470	95	664	1.44	19.60
September 1945.....	62,327	13,000	206	2,078	4.52	5.04
Water year 1944-45.....	241,088	13,000	54	661	1.44	19.50
Calendar year 1945.....	272,085	13,000	54	745	1.62	22.02

Little River at Linden, N. C.--Continued

Rating table, water year 1954-55, except periods of backwater from Cape Fear River (gage height, in feet, and discharge, in cubic feet per second)

1.9	39	4.0	505
2.2	69	5.0	883
2.6	128	7.0	1,660
3.0	207	9.0	2,440
3.5	339	11.0	3,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	257	342	322	*579	434	302	354	163	102	598	940
2	51	234	333	324	524	418	294	310	169	78	452	1,580
3	52	230	291	336	505	398	327	275	146	68	322	3,420
4	51	207	265	333	487	375	391	254	123	70	227	c5,090
5	50	232	247	324	452	363	401	240	112	70	177	c4,540
6	46	324	470	313	487	360	369	220	103	65	150	3,780
7	44	418	731	305	c1,160	395	379	200	94	74	130	2,050
8	41	418	883	305	c1,180	434	382	189	90	255	110	1,540
9	41	372	1,080	299	c1,550	434	345	163	85	472	97	1,430
10	41	310	940	283	1,430	*391	310	156	82	571	88	1,190
11	42	270	712	363	1,040	357	286	146	82	674	104	1,190
12	44	252	560	524	902	363	283	142	120	598	289	1,080
13	44	237	505	579	826	434	294	159	*139	1,330	418	*1,040
14	45	230	598	560	788	674	*588	418	103	1,190	310	864
15	318	227	750	505	731	845	c1,150	579	86	769	363	693
16	1,690	*220	750	401	674	845	c1,470	542	78	524	351	*598
17	c2,000	222	674	354	617	788	1,780	*418	76	351	1,500	542
18	c2,350	232	598	330	579	712	1,270	291	69	262	c3,140	487
19	*c1,510	254	524	391	560	655	883	222	74	198	c2,860	598
20	674	280	505	524	542	712	712	187	126	*184	c1,930	1,300
21	452	294	452	579	505	731	579	165	165	283	1,150	1,190
22	379	313	434	617	487	712	469	187	183	265	769	1,040
23	324	268	401	731	469	617	418	283	196	234	2,110	769
24	286	267	391	788	469	524	382	294	177	220	2,910	617
25	265	257	369	902	487	452	617	291	157	187	2,210	524
26	234	252	351	321	487	398	731	242	175	163	1,860	505
27	224	242	345	883	487	366	674	183	150	146	1,190	469
28	222	234	*336	826	469	348	617	150	165	120	788	452
29	227	270	330	769	-	327	505	130	167	106	636	418
30	234	316	336	712	-----	319	398	137	125	247	560	398
31	257	-	333	636	-----	310	-----	163	-----	524	*524	-----
Total	12,287	8,159	15,836	16,039	19,473	15,491	17,606	7,690	3,780	10,400	28,323	40,334
Mean	396	272	511	517	695	500	587	248	126	335	914	1,344
Cfsm	0.861	0.591	1.11	1.12	1.51	1.09	1.28	0.539	0.274	0.728	1.99	2.92
In.	0.99	0.66	1.28	1.30	1.57	1.25	1.42	0.62	0.31	0.84	2.29	3.26

Calendar year 1954: Max 4,600 Min. 40 Mean 479 Cfsm 1.04 In. 14.15
 Water year 1954-55: Max 5,090 Min. 41 Mean 535 Cfsm 1.16 In. 15.79

Peak discharge (base, 2,100 cfs).--Oct. 16 (8 a.m.) 2,210 cfs (8.35 ft); Oct. 18 (3 p.m.) 2,540 cfs (10.26 ft); Aug. 18 (10 a.m.) 3,210 cfs (11.28 ft); Aug. 23 (5 p.m.) 3,180 cfs (10.93 ft); Sept. 4 (4 p.m.) 5,370 cfs (17.67 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 1955.

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.--18 years, 4,763 cfs.

Extremes.--Maximum discharge during year, 53,000 cfs Sept. 4; maximum gage height, 24.61 ft Sept. 5; minimum discharge, 185 cfs Oct. 11 (gage height, 0.42 ft); minimum daily, 222 cfs Oct. 11.

1937-55: 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, those computed from graph based on gage readings, and those for periods of no gage-height record at auxiliary gage, which are fair. Slight diurnal fluctuation and some regulation for short periods at low flow caused by powerplants above station. Records of chemical analyses and water temperatures for the water year 1955 are given in WSP 1400.

Rating table, water year 1954-55, except periods computed using submergence as a factor (gage height, in feet, and discharge, in cubic feet per second)

0.4	170	2.0	1,830
.6	320	3.0	3,460
.8	480	4.0	5,690
1.0	670	5.0	8,370
1.5	1,200	6.0	11,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312	1,000	3,460	g2,120	4,170	4,720	2,340	2,340	1,400	969	3,750	3,360
2	282	1,000	3,360	g1,830	3,650	4,280	2,270	1,830	1,170	800	3,650	9,660
3	245	840	2,900	g1,830	3,460	3,850	2,040	1,690	1,090	525	2,820	k19,200
4	252	958	2,420	g1,830	3,180	3,750	2,120	1,540	840	690	2,180	a47,200
5	352	1,180	1,830	g1,970	2,820	3,560	2,270	1,670	525	670	1,690	a46,500
6	352	1,280	2,120	g1,970	2,580	2,820	2,500	1,450	580	670	1,140	a35,400
7	305	1,420	9,830	g2,120	k11,500	2,900	2,500	1,100	525	660	840	a20,800
8	305	1,570	k12,300	g1,970	k30,400	3,750	2,580	925	516	1,810	720	k14,000
9	368	1,830	7,810	g1,420	k30,400	4,170	2,340	925	570	2,420	790	k9,320
10	252	1,830	5,690	g1,580	k22,800	3,750	2,040	1,090	620	3,850	680	6,330
11	222	1,650	5,080	g1,700	k14,600	2,990	1,830	870	600	4,500	870	5,080
12	305	1,270	4,720	2,420	k14,300	2,660	1,970	1,200	516	6,730	1,640	4,610
13	328	1,110	4,060	3,080	k18,500	3,560	2,040	1,220	534	9,850	2,120	3,750
14	*230	980	4,630	3,850	k12,900	6,860	2,990	1,560	760	10,400	1,830	3,750
15	958	914	k13,000	3,360	8,950	6,730	k13,200	1,660	914	8,860	2,020	3,460
16	k13,500	1,090	k14,200	2,580	6,730	6,860	k25,800	1,500	881	4,500	9,640	2,740
17	k33,700	1,080	k10,100	2,340	5,560	6,330	k23,500	1,760	690	2,990	k13,100	2,200
18	*k40,200	1,010	6,460	2,270	4,840	8,370	k15,000	1,900	720	2,120	k22,200	2,040
19	*k34,400	1,103	4,610	2,420	4,170	7,810	k9,200	1,480	570	1,670	k36,400	2,660
20	*k22,700	1,110	3,850	2,820	3,650	7,810	6,070	1,450	790	1,450	k29,700	4,960
21	*k10,500	1,620	3,850	2,660	3,560	9,250	4,500	1,380	1,380	1,760	k19,000	5,200
22	2,590	3,960	3,460	2,900	3,270	7,810	3,650	870	2,200	3,520	k13,900	3,960
23	1,900	3,560	2,740	3,270	3,180	6,460	3,080	969	1,600	3,270	k11,400	3,650
24	1,500	2,580	2,660	4,720	2,990	5,560	2,420	4,580	1,420	1,970	k13,800	3,080
25	1,440	2,340	2,420	6,730	3,080	4,720	2,580	5,200	1,520	1,200	k13,400	2,740
26	1,500	2,340	2,040	7,270	6,100	3,850	2,900	3,270	1,320	1,540	k10,100	2,740
27	1,250	2,200	1,900	7,000	6,070	3,270	3,560	2,580	1,570	1,270	7,000	2,340
28	1,100	1,760	1,970	6,730	5,080	2,990	3,270	2,040	1,450	947	4,720	2,420
29	958	1,600	g2,120	6,330	-	2,820	2,900	1,270	1,190	925	3,850	2,270
30	1,000	2,120	g2,120	5,440	-	2,740	2,660	1,300	1,010	1,250	2,900	2,340
31	770	-	g2,120	4,610	-	2,500	-	1,420	-	3,160	2,270	-
Total	175,176	48,302	149,830	102,940	242,290	149,300	156,120	54,039	29,471	84,916	240,060	278,060
Mean	5.65	1.610	4.833	3.321	8.653	4.816	5.204	1.743	982	2.739	7.141	9.269
Cfs/m	1.17	0.335	1.00	0.690	1.80	1.00	1.08	0.362	0.204	0.569	1.61	1.93
In.	1.35	0.37	1.16	0.80	1.87	1.15	1.21	0.42	0.23	0.66	1.86	2.15
Calendar year 1954: Max	48,900	Min	208	Mean	4,233	Cfs/m	0.880	In.	11.95			
Water year 1954-55: Max	47,500	Min	222	Mean	4,686	Cfs/m	0.974	In.	13.23			

* Discharge measurement made on this day.

a No gage-height record at auxiliary gage; discharge estimated using fall relation with stage at Fayetteville.

g Computed from graph based on twice-daily staff gage readings.

k Computed by using submergence as a factor.

Little Coharie Creek near Roseboro, N. C.

Location.--Lat 34°57', long 78°29', on downstream end of center 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 1955.

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.--5 years, 78.1 cfs.

Extremes.--Maximum discharge during year, 1,860 cfs Sept. 6 (gage height, 9.00 ft); minimum, 0.1 cfs Oct. 1-11, 1950-55; Maximum discharge, that of Sept. 6, 1955; 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 except those for periods of no gage-height record, which are poor.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 16 to Feb. 7)

Oct. 1-15

Oct. 16 to Sept. 30

0.94	0.1	0.8	5.6	6.0	160
1.0	0.2	.9	6.8	6.5	230
1.1	.45	2.0	8.0	6.8	320
1.2	1.0	2.4	14	7.0	420
1.4	2.6	3.0	26	8.0	1,030
1.7	6.0	4.0	54	9.0	1,860
		5.0	95		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	8.6	24	62	150	a90	a85	51	22	30	28	*182
2	.1	8.8	24	68	142	a90	a85	52	22	20	26	176
3	.1	9.7	24	68	*135	a90	a80	45	18	14	21	285
4	.1	10	23	68	128	a90	a85	38	13	11	19	444
5	.1	14	23	66	121	a100	a90	32	10	8.9	16	1,070
6	.1	19	.44	64	118	a110	a90	29	8.6	7.6	12	1,800
7	*.1	20	*52	62	135	a105	a85	26	*7.4	6.6	10	*1,440
8	.1	20	54	60	146	*102	a80	23	7.6	11	8.6	995
9	.1	21	54	58	150	100	a80	20	7.3	31	7.5	692
10	.1	22	56	56	155	98	a80	17	7.2	66	6.9	482
11	.1	22	58	62	176	95	a85	15	8.4	105	13	395
12	.15	20	60	64	196	92	78	14	58	223	*74	312
13	.15	18	62	62	189	92	76	14	39	265	115	265
14	.15	17	72	62	182	108	95	29	20	219	138	240
15	5.6	16	78	64	170	a120	115	34	14	182	155	219
16	11	15	82	66	160	a130	124	35	10	a160	204	204
17	25	15	86	66	*155	a130	124	39	8.1	a140	427	189
18	22	15	102	66	146	a140	128	40	6.9	a120	*768	176
19	21	*15	124	78	138	a150	138	32	6.8	a100	629	232
20	20	20	138	95	132	a150	150	*26	8.6	a80	1,030	*518
21	*20	26	135	100	124	a140	142	21	14	*68	1,660	445
22	19	26	128	102	115	a140	*135	17	19	56	*1,240	500
23	18	27	121	110	a110	a130	121	18	*21	62	890	530
24	18	27	112	132	a100	a130	108	23	63	62	644	455
25	16	27	108	146	a95	a120	90	28	66	46	425	370
26	14	27	98	155	a95	a120	78	29	88	28	355	320
27	12	26	88	160	a95	a110	68	26	86	22	325	300
28	10	26	80	165	a90	a100	62	21	74	18	274	265
29	9.4	26	74	170	-	a95	58	16	66	*18	240	*238
30	9.0	25	70	165	-----	a90	54	19	50	17	217	210
31	8.8	-	64	160	-----	a85	-----	22	-----	23	198	-
Total	258.35	589.1	2,318	2,892	3,848	3,442	2,869	851	869.9	2,220.1	10,174.0	13,950
Mean	8.33	19.6	74.8	93.0	137	111	95.6	27.5	28.0	71.6	328	465
Cfsm	0.086	0.203	0.776	0.965	1.42	1.15	0.992	0.285	0.301	0.743	3.40	4.82
In.	0.10	0.23	0.89	1.11	1.48	1.33	1.11	0.33	0.34	0.86	3.93	5.38

Calendar year 1954: Max 526 Min 0.1 Mean 62.8 Cfsm 0.651 In. 8.85
Water year 1954-55: Max 1,800 Min 0.1 Mean 121 Cfsm 1.26 In. 17.09

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, records for Black River near Tomahawk, and other nearby stations.

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 $3\frac{1}{4}$ miles northeast of Tomahawk, Sampson County.

Drainage area.--680 sq mi.

Records available.--October 1951 to September 1955.

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.

Extremes.--Maximum discharge observed during year, 6,550 cfs Sept. 9 (gage height, 44.16 ft); minimum, 8.5 cfs Oct. 13 (gage height, 25.59 ft).

1951-55: Maximum discharge observed, that of Sept. 9, 1955; minimum, that of Oct. 13, 1954.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 21 to Nov. 27,
Feb. 22 to May 7)

Oct. 1-15			Oct. 16 to Sept. 30		
25.6	8.9		26.0	34	33.0
25.7	14		26.2	50	35.0
			26.5	77	37.0
			27.0	125	40.0
			28.0	237	44.0
			31.0	730	44.1
					6,470

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	38	104	263	650	444	396	225	118	305	335	*2,140
2	11	38	104	263	650	444	380	213	118	253	365	1,800
3	11	38	104	305	*612	444	365	213	108	225	320	1,830
4	9.8	38	104	277	576	428	396	201	100	189	350	2,080
5	9.8	43	104	277	541	428	396	189	90	155	365	2,270
6	8.9	44	144	263	541	444	365	166	82	128	277	2,810
7	*11	57	*263	263	594	460	396	155	*77	100	201	*3,520
8	11	77	350	263	690	*558	476	144	59	86	155	5,140
9	12	77	305	250	730	541	460	133	55	100	128	6,400
10	11	72	250	250	710	508	428	123	52	166	118	6,330
11	9.8	68	237	250	690	492	396	113	46	263	118	5,700
12	9.4	68	225	277	710	476	*380	100	44	380	277	4,930
13	8.9	68	225	305	690	444	380	104	46	594	549	3,940
14	8.9	68	225	291	670	476	412	128	64	750	636	3,250
15	9.4	68	237	277	670	650	750	166	68	860	780	2,590
16	a20	64	263	277	650	730	880	166	72	900	895	2,010
17	a40	64	263	263	*650	710	810	155	72	940	1,180	1,740
18	a50	*64	263	263	630	690	710	144	68	1,010	1,720	1,520
19	a56	68	291	277	612	670	612	128	64	1,030	*2,280	1,620
20	a60	77	320	412	576	670	541	*123	64	950	*3,260	2,310
21	*64	108	305	476	558	670	492	118	68	*960	4,340	3,050
22	68	118	305	508	541	650	444	113	*77	*940	*4,720	*4,510
23	59	123	305	558	508	630	428	113	77	860	4,980	*5,210
24	53	113	320	630	476	612	396	144	100	750	5,890	*4,930
25	49	104	320	750	476	576	380	155	128	594	6,440	4,240
26	46	113	320	790	476	558	350	144	237	476	*6,120	3,580
27	44	113	305	750	460	541	305	128	291	350	5,560	*3,050
28	40	104	305	710	460	508	291	113	350	263	4,860	2,670
29	39	113	291	710	-	444	263	108	350	225	3,700	2,310
30	38	104	*277	690	-----	412	237	113	335	250	3,630	2,080
31	38	-----	263	670	-----	396	-----	113	-----	263	2,630	-----
Total	918.9	2,312	7,697	12,808	16,777	16,704	13,515	4,451	3,480	15,345	66,849	99,560
Mean	29.6	77.1	248	413	599	539	450	144	116	495	2,156	3,319
Cfs/m	0.044	0.113	0.365	0.607	0.881	0.793	0.662	0.212	0.171	0.728	3.17	4.88
In.	0.05	0.13	0.42	0.70	0.92	0.91	0.74	0.24	0.19	0.84	3.66	5.45
Calendar year 1954: Max	1,830				Min 8.9	Mean 359		Cfs/m 0.528	In. 7.16			
Water year 1954-55: Max	6,440				Min 8.9	Mean 713		Cfs/m 1.05	In. 14.25			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for South River near Parkersburg.

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 1955.

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.

Extremes.--Maximum discharge during year, 5,000 cfs Aug. 24 (gage height, 64.20 ft); minimum, 0.1 cfs Oct. 3-6, 11-14.
1951-55: Maximum discharge, that of Aug. 24, 1955; minimum, that of Oct. 3-6, 11-14, 1954.

Remarks.--Records fair. Records of chemical analyses for the water year 1955 are given in WSP 1400.

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Nov. 14-25)

51.8	0.1	56.0	155
51.9	.2	57.0	234
52.0	.4	58.0	345
52.1	1.2	59.0	546
52.3	3.7	60.0	914
52.5	6.8	61.0	1,520
53.0	16	63.0	3,420
54.0	49	64.0	4,700
55.0	95	64.2	5,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	15	62	252	574	345	331	261	53	33	225	*1,450
2	.2	15	58	261	546	331	317	252	47	41	184	1,260
3	.1	16	58	261	*519	317	304	243	43	31	148	1,260
4	.1	16	58	261	494	317	281	225	39	24	148	1,320
5	.1	19	58	252	471	304	271	208	35	20	128	1,590
6	.1	23	76	243	450	292	261	176	31	17	110	2,960
7	*.3	31	*116	234	471	304	261	155	*28	15	95	*3,780
8	.4	31	122	225	471	*304	261	128	24	15	85	3,780
9	.2	31	122	208	494	292	261	105	23	18	71	3,540
10	.2	29	122	200	494	292	252	90	20	33	67	3,070
11	.1	29	122	200	546	281	243	81	18	105	72	2,850
12	.1	28	122	208	574	271	*234	71	16	148	123	2,540
13	.1	28	128	216	638	271	225	67	24	225	188	2,260
14	.1	26	141	208	638	292	243	81	28	345	225	1,900
15	7.8	24	162	200	638	317	281	85	23	471	269	1,590
16	*15	24	176	200	638	345	317	81	18	519	328	1,380
17	28	24	192	200	*605	360	331	81	15	471	521	1,140
18	24	24	216	200	574	360	345	81	14	376	1,110	914
19	18	*24	252	216	546	376	376	81	12	304	*1,440	964
20	18	28	281	252	519	411	411	*76	12	304	1,590	1,200
21	*20	41	304	271	494	430	471	71	10	*360	1,740	1,380
22	20	51	317	292	471	450	*494	71	10	411	2,040	1,520
23	20	51	317	304	450	450	471	81	*9.9	411	3,250	1,520
24	19	54	304	360	430	471	450	85	12	393	4,820	1,380
25	18	53	292	411	411	471	430	85	16	360	4,700	1,260
26	17	53	292	450	393	450	393	85	31	345	*4,020	1,140
27	16	53	281	494	376	430	360	76	85	331	3,300	964
28	15	56	271	546	345	411	317	71	90	317	2,850	*914
29	15	58	271	574	-	376	292	62	81	304	2,350	824
30	15	62	*261	574	-----	360	281	58	67	292	2,080	784
31	15	---	252	574	-----	345	-----	62	---	271	1,740	---
Total	303.1	1,017	5,806	9,347	14,270	11,026	9,765	3,435	934.9	7,330	40,017	52,434
Mean	9.78	33.9	187	302	510	356	326	111	31.2	236	1,291	1,748
Cfs/m	0.026	0.089	0.490	0.791	1.34	0.932	0.853	0.291	0.082	0.618	3.38	4.58
In.	0.03	0.10	0.57	0.91	1.39	1.07	0.95	0.33	0.09	0.71	3.90	5.10
Calendar year 1954: Max	1,730				Min 0.1		Mean 248	Cfs/m 0.649	In. 8.82			
Water year 1954-55: Max	4,820				Min 0.1		Mean 427	Cfs/m 1.12	In. 15.15			

* Discharge measurement made on this day.

Colly Creek near Kelly, N. C.

Location.--Lat 34°28', long 78°15', on right bank 10 ft downstream from bridge on State Highway 53, 4 miles east of Kelly, Bladen County, and 6 $\frac{1}{2}$ miles upstream from mouth.

Drainage area.--85.2 sq mi.

Records available.--January 1950 to September 1955.

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.--5 years, 69.1 cfs.

Extremes.--Maximum discharge during year, 910 cfs Sept. 22 (gage height, 7.20 ft); no flow for many days during October.

1950-55: Maximum discharge, that of Sept. 22, 1955; no flow at times during several years.

Flood in 1908 reached a stage of 11.1 ft; 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 except those below 2 cfs and those for periods of no gage-height record, which are poor.

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Dec. 18 to Feb. 9,
July 17 to Aug. 12)

0.7	0	3.0	35
.8	.2	3.5	50
.9	.7	4.0	70
1.0	1.3	5.0	166
1.2	3.0	5.5	255
1.5	6.3	6.0	377
1.8	10	6.5	559
2.2	18	7.0	780
2.6	26	7.2	910

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4	1.2	6.3	30	62	58	49	25	a7	3.6	638
2	0	.4	1.1	11	*30	61	57	47	22	a5	2.4	596
3	0	.4	1.1	12	29	60	58	45	20	4.4	1.8	620
4	0	a.4	1.2	12	29	61	58	42	17	13	1.5	676
5	0	a.5	1.2	11	29	61	55	40	15	16	1.2	638
6	0	a.6	a4	10	33	60	55	37	13	9.0	1.1	660
7	0	.6	*5.9	9.6	45	66	59	35	*12	5.7	.8	*767
8	0	.6	5.8	9.0	49	65	60	32	15	3.8	.4	*800
9	0	.5	5.8	8.7	52	64	60	31	12	2.8	.05	721
10	0	.5	5.5	8.4	54	64	62	29	10	3.2	.19	624
11	0	.5	5.1	9.3	58	62	62	28	9.3	5.2	1.2	633
12	0	.5	4.4	10	64	62	64	28	7.9	4.1	14	748
13	0	.5	4.3	10	67	64	*64	28	6.4	30	19	a780
14	0	.5	4.6	9.8	68	68	69	33	5.2	28	20	a750
15	.15	.5	4.8	9.3	69	72	82	34	4.4	21	20	a700
16	.1	.5	4.9	9.2	70	72	84	35	3.9	15	22	a600
17	.1	.5	4.7	9.2	*70	72	86	35	3.0	11	63	a500
18	.1	*5	5.9	9.0	70	70	87	34	2.8	9.9	98	a440
19	.07	.5	6.8	16	70	71	87	32	3.3	10	88	a550
20	.07	1.2	6.7	21	69	74	86	*29	3.5	8.0	76	*845
21	** .05	2.1	6.2	22	69	73	82	27	7.5	6.2	68	891
22	a.1	2.1	5.6	22	69	73	78	25	*8.8	*5.0	73	904
23	a.1	2.0	5.0	22	68	72	74	27	a9	4.0	108	878
24	.1	1.9	4.8	32	68	72	69	31	a12	3.1	151	793
25	.1	1.6	4.2	35	67	72	65	33	a14	2.3	*220	722
26	.2	1.5	4.0	34	65	71	62	35	a15	1.9	356	734
27	.2	1.4	4.0	32	64	68	58	36	a15	1.6	549	748
28	.2	1.2	4.0	32	63	66	56	35	a14	1.4	596	722
29	.3	1.2	5.2	31	-	64	54	35	a12	1.2	561	651
30	.3	1.2	*6.7	31	-----	62	52	31	a10	1.6	572	569
31	.4	6.1	30	-----	-----	59	59	28	-----	2.6	*633	-----
Total	2.64	26.8	140.8	533.8	1,588	2,063	2,003	1,044	326.0	243.0	4,321.24	20,898
Mean	0.085	0.89	4.54	17.2	56.7	66.5	66.8	33.7	10.9	7.84	139	697
Cfsm	0.0010	0.010	0.053	0.202	0.665	0.781	0.784	0.396	0.128	0.092	1.63	8.18
In.	0.001	0.01	0.06	0.23	0.69	0.90	0.87	0.46	0.14	0.11	1.89	9.12
Calendar year 1954: Max	300				Min 0	Mean 51.2	Cfsm 0.601	In. 8.16				
Water year 1954-55: Max	904				Min 0	Mean 30.9	Cfsm 1.07	In. 14.48				

* Discharge measurement made on this day.

** Field estimate made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and records for nearby stations.

CAPE FEAR RIVER BASIN

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 1¼ miles west of Chinquapin, Duplin County.

Drainage area.--600 sq mi.

Records available.--July 1940 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 17.28 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--15 years, 614 cfs.

Extremes.--Maximum discharge during year, 15,200 cfs Sept. 22 (gage height, 17.97 ft); minimum, 5.3 cfs Oct. 10, 11.

1940-55: Maximum discharge, that of Sept. 22, 1955; minimum, that of Oct. 10, 11, 1954.

Flood in 1908 reached a stage of 22.6 ft at old bridge site 1,000 ft upstream from gage. Flood in 1928 reached a stage 0.8 ft lower than that of 1908, from information by North Carolina Highway and Public Works Commission.

Remarks.--Records fair.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 11 to Feb. 7, Mar. 15-25, June 1-21, July 12-28, Sept. 12-18, 29, 30)

0.7	4.3	4.0	438
0.8	6.3	6.0	803
1.0	13	9.0	1,590
1.3	33	12.0	3,140
1.6	66	14.0	5,300
2.0	120	16.0	9,350
2.5	198	18.0	15,200
3.0	278		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.3	9.1	22	80	294	187	163	95	106	222	438	2,250
2	7.7	9.1	22	83	*278	182	152	93	89	168	438	2,100
3	7.4	9.5	23	89	262	177	147	92	74	135	430	2,520
4	6.9	9.5	23	95	238	172	142	87	61	116	438	2,990
5	6.6	9.5	25	96	222	166	141	78	50	95	430	3,850
6	6.3	9.5	33	96	209	168	140	67	39	74	342	5,600
7	6.9	9.5	38	96	238	190	147	60	*32	56	270	7,030
8	5.7	9.8	44	96	262	214	166	58	29	50	188	6,620
9	5.5	11	51	95	270	230	171	65	26	41	141	5,450
10	5.3	*13	55	93	286	230	169	109	21	47	112	4,520
11	5.3	14	58	96	302	230	163	126	21	140	211	3,850
12	5.5	14	59	100	310	222	158	112	18	230	894	3,220
13	5.5	14	61	107	294	206	158	100	16	406	2,160	2,580
14	5.5	14	62	109	294	238	172	119	14	574	3,300	2,050
15	12	15	62	112	286	310	270	174	13	683	3,750	1,650
16	10	15	64	113	286	*358	318	195	12	743	3,650	*1,360
17	8.0	16	64	112	278	374	326	193	11	743	3,850	1,140
18	7.7	15	65	109	262	390	318	166	12	703	*5,300	948
19	7.1	15	70	119	254	390	302	132	16	628	*7,030	1,900
20	6.6	16	76	140	238	390	270	103	17	*574	7,450	7,460
21	6.6	17	*79	150	230	382	238	79	16	556	6,430	*13,800
22	7.1	19	80	160	214	368	208	65	53	556	5,160	*14,600
23	8.3	21	82	177	203	350	187	78	105	538	4,180	12,800
24	8.5	24	82	222	193	326	169	126	126	520	*3,460	*9,850
25	8.6	24	80	270	190	302	153	209	196	503	3,380	7,030
26	9.1	24	79	286	190	270	135	230	286	574	3,380	5,160
27	9.1	23	76	310	190	254	*123	222	398	446	3,380	3,850
28	8.8	23	76	326	188	230	113	192	430	350	3,380	*2,850
29	10	23	78	334	-	209	107	150	374	302	3,380	*2,000
30	9.8	22	79	326	-----	193	99	119	294	294	3,300	1,590
31	9.5	-	79	310	-----	177	-----	110	-----	382	2,850	-
Total	235.4	467.5	1,847	4,907	6,961	8,085	5,525	3,804	2,955	11,449	83,102	142,618
Mean	7.59	15.6	59.6	158	249	261	184	123	98.5	369	2,681	4,754
Cfsm	0.013	0.026	0.099	0.263	0.415	0.435	0.307	0.205	0.164	0.615	4.47	7.92
In.	0.01	0.03	0.11	0.30	0.43	0.50	0.34	0.24	0.18	0.71	5.15	8.84
Calendar year 1954: Max			2,160	Min 5.3		Mean 304		Cfsm 0.507		In. 6.87		
Water year 1954-55: Max			14,600	Min 5.3		Mean 745		Cfsm 1.24		In. 16.84		

* 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 1955.

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.--16 years, 611 cfs.

Extremes.--Maximum discharge during year, 10,200 cfs Sept. 25; maximum gage height, 16.63 ft Sept. 26; minimum discharge, 0.1 cfs Oct. 4-14. 1939-55: Maximum discharge, that of Sept. 25, 1955; maximum gage height, that of Sept. 26, 1955; minimum discharge, 0.1 cfs Aug. 30, Sept. 9, 10, 28, Oct. 4-14, 1954.

Remarks.--Records fair except those below 5 cfs and those for periods of no gage-height record, which are poor.

Revisions.--WSP 1172. Drainage area.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.6	0.3	7.4	43	265	186	405	48	27	61	1,720
2	.2	.5	.3	10	*46	257	188	375	41	25	59	1,600
3	.2	.5	.4	12	46	250	180	337	37	23	52	1,600
4	.1	.4	.4	13	46	240	188	305	32	20	45	1,720
5	.1	.5	.4	13	57	230	197	273	28	18	43	2,180
6	.1	.6	.7	13	78	230	203	234	25	22	42	3,050
7	.1	.5	1.5	12	104	234	201	206	24	21	32	3,860
8	.1	.4	2.1	11	145	241	207	180	*23	18	27	*4,420
9	.1	.4	2.4	11	210	*241	207	162	19	17	22	4,680
10	.1	.3	3.2	11	246	234	199	138	17	14	20	4,580
11	.1	.4	2.6	11	305	227	192	a120	16	17	36	4,480
12	.1	.5	2.4	11	337	213	192	a110	15	32	127	4,180
13	.1	.5	2.2	12	355	213	*192	a95	14	35	178	4,180
14	.1	.5	3.1	12	365	213	199	a90	11	34	160	3,920
15	12	.4	3.8	11	375	213	202	a80	8.6	34	168	*3,740
16	13	.4	2.9	11	365	213	236	a75	7.5	34	194	3,500
17	8.6	.6	2.8	11	365	208	258	a70	8.7	33	286	3,280
18	5.1	*.4	4.9	11	*345	199	269	a55	7.4	29	443	2,890
19	2.8	.4	5.4	16	337	192	263	*58	8.8	33	571	*2,990
20	*2.0	.9	5.7	17	329	192	263	52	9.4	70	772	3,530
21	1.4	1.0	5.9	19	321	192	273	48	*24	97	871	4,910
22	1.0	.9	5.9	20	313	199	300	44	60	109	*972	*6,990
23	.8	.7	5.9	21	313	206	365	62	64	109	999	*8,440
24	.7	.7	5.1	36	305	206	405	114	64	90	1,060	*9,540
25	.6	.6	4.8	49	305	213	435	125	59	80	1,280	9,680
26	.6	.5	4.8	50	297	220	469	108	50	70	1,450	*9,910
27	.5	.5	4.6	46	289	220	481	95	50	82	1,600	9,200
28	.4	.5	4.6	42	273	213	469	80	44	52	1,780	7,830
29	.7	.6	*6.5	41	-	213	457	68	36	43	1,840	*6,620
30	.6	.4	6.8	40	-	206	435	60	31	43	1,840	5,540
31	.6	-	7.0	38	-	192	-	54	-	50	1,780	-
Total	53.2	16.1	109.4	638.4	6,915	6,783	8,321	4,298	880.4	1,361	18,811	144,760
Mean	1.72	0.54	3.53	20.6	247	219	277	138	29.3	43.9	607	4,825
Cfsm	0.0027	0.00086	0.0056	0.033	0.394	0.349	0.442	0.220	0.047	0.070	0.970	7.71
In.	0.003	0.001	0.006	0.04	0.41	0.40	0.49	0.25	0.05	0.08	1.12	8.60
Calendar year 1954: Max	1,780				Min 0.1	Mean 278	Cfsm 0.444	In. 6.02				
Water year 1954-55: Max	9,910				Min 0.1	Mean 529	Cfsm 0.845	In. 11.45				

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of record of auxiliary gage and streamflow continuity.

WACCAMAW RIVER BASIN

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 1955.

Gage. --Wire-weight 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. --5 years, 695 cfs.

Extremes. --Maximum discharge during year, 10,300 cfs Sept. 28-30; maximum gage height, 13.82 ft Sept. 29, from graph based on gage readings; minimum discharge 1 cfs Oct. 14. 1950-55: Maximum discharge, that of Sept. 28-30, 1955; maximum gage height, that of Sept. 29, 1955; minimum discharge, that of Oct. 14, 1954.

Remarks. --Records good.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-14

Oct. 15 to Sept. 30

0.1	1	0.3	7	8.0	940
.3	7	.6	19	9.0	1,350
.6	19	1.0	39	10.0	2,350
		2.0	101	11.0	3,850
		3.0	177	13.0	8,150
		5.0	409	13.8	10,300

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	20	11	42	381	453	291	648	108	84	144	2,890
2	13	18	11	56	354	423	279	630	101	71	136	2,890
3	8	16	10	71	315	409	256	613	84	62	129	3,030
4	6	15	9	80	279	381	256	579	77	53	122	3,350
5	5	15	9	87	256	367	245	546	68	47	108	3,670
6	3	15	12	94	256	354	*234	498	62	42	94	4,590
7	3	13	16	101	291	354	256	453	58	39	84	5,610
8	3	*12	21	94	395	354	267	395	50	36	77	*6,050
9	3	12	29	84	498	354	291	328	47	33	74	6,490
10	2	11	30	77	579	354	303	279	42	32	71	6,710
11	2	10	31	74	648	354	328	245	39	30	87	*6,950
12	2	9	32	71	666	354	354	214	36	*29	152	7,190
13	2	9	32	68	684	354	381	186	34	28	245	7,190
14	1	9	32	68	684	354	438	177	32	25	381	6,950
15	15	9	30	62	702	367	530	186	29	29	562	6,710
16	90	9	30	62	*702	381	579	177	26	32	740	6,490
17	129	8	34	62	684	381	630	160	24	34	857	6,050
18	144	8	36	62	684	381	666	144	26	42	919	5,830
19	160	8	39	74	666	381	684	129	34	59	1,020	6,050
20	160	9	44	94	666	395	721	115	31	74	1,370	6,950
21	144	10	47	115	630	381	740	108	30	101	1,890	7,910
22	122	11	44	129	613	381	759	101	34	160	2,350	8,150
23	94	11	44	152	596	367	740	101	80	256	2,610	8,150
24	77	11	42	195	562	354	759	115	200	341	*2,890	8,150
25	62	11	39	256	530	354	740	*115	234	354	3,190	8,670
26	50	10	39	354	514	341	721	129	214	341	3,510	*9,450
27	42	10	36	423	498	328	702	136	186	328	3,670	9,990
28	34	10	34	468	468	328	702	144	152	291	3,670	10,300
29	30	10	*34	468	-	315	684	144	122	245	3,510	10,300
30	27	11	36	453	-----	303	666	136	101	195	3,190	10,300
31	24	-	39	423	-----	291	-----	122	-----	160	3,030	-
Total	1,474	340	932	4,919	14,801	11,248	15,202	8,053	2,359	3,653	40,882	203,010
Mean	47.5	11.3	30.1	159	529	363	507	260	78.6	118	1,519	6,767
Cfsm	0.046	0.011	0.029	0.154	0.514	0.352	0.492	0.252	0.076	0.115	1.28	6.57
In.	0.05	0.01	0.03	0.18	0.54	0.41	0.55	0.29	0.08	0.13	1.48	7.33
Calendar year 1954: Max			2,520	Min 1		Mean 513		Cfsm 0.498	In. 6.75			
Water year 1954-55: Max			10,300	Min 1		Mean 841		Cfsm 0.817	In. 11.08			

* 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 1955.

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.--16 years, 44.4 cfs.

Extremes.--Maximum discharge during year, 734 cfs Apr. 14 (gage height, 3.09 ft); minimum, 5.3 cfs Oct. 1, 11 (gage height, 0.02 ft).

1939-55: 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, 5.3 cfs Sept. 30, Oct. 1, 11, 1954.

Remarks.--Records good.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.0	4.5	1.0	105
.1	8.3	1.5	213
.2	14	2.0	344
.3	20	2.5	503
.5	38		
.7	61		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	7.9	14	44	16	30	30	30	18	14	29	15
2	18	8.8	14	36	17	28	28	28	*17	12	27	15
3	8.3	11	12	28	18	27	28	28	16	18	26	15
4	7.5	9.3	12	25	16	26	27	27	16	24	23	15
5	6.8	12	12	22	15	26	26	27	15	34	20	15
6	6.8	11	30	20	139	24	28	26	15	20	20	17
7	6.8	9.3	19	18	121	*23	28	24	18	22	26	14
8	6.8	11	*15	17	67	23	26	23	28	27	28	12
9	7.2	8.3	17	17	50	22	23	23	22	28	23	12
10	7.2	7.9	19	17	40	21	23	22	17	20	22	12
11	7.2	7.5	15	19	40	22	59	20	29	43	19	12
12	7.2	7.5	14	17	35	25	90	21	28	130	18	12
13	7.2	7.5	17	17	32	26	111	24	19	87	17	11
14	6.8	7.5	24	15	30	28	394	30	18	*56	16	11
15	12	7.5	19	16	27	26	151	44	16	44	43	11
16	18	9.9	17	15	26	37	100	29	15	35	30	11
17	11	27	15	15	25	49	78	28	15	36	25	10
18	9.9	18	17	15	24	53	65	24	14	32	23	10
19	8.8	19	18	16	23	76	57	23	18	40	20	10
20	7.9	20	17	15	23	80	*53	22	22	84	18	9.9
21	7.5	17	14	15	22	65	49	20	24	39	17	9.3
22	7.2	14	12	17	21	129	50	32	18	31	17	9.3
23	7.2	13	14	17	47	98	46	40	16	42	28	10
24	6.8	14	14	15	39	72	50	33	17	51	19	11
25	6.8	14	12	15	36	59	50	31	15	42	17	16
26	*6.8	13	11	14	33	51	41	28	15	33	15	17
27	7.5	12	12	16	32	41	38	23	14	30	15	12
28	7.9	12	13	15	32	38	36	22	14	26	14	12
29	9.3	19	149	15	-	36	34	20	12	27	*14	11
30	9.3	17	177	14	-	33	31	20	12	26	14	11
31	8.8	-	60	12	-	31	-	19	-	28	15	-
Total	262.1	372.9	825	569	1,046	1,323	1,850	811	533	1,181	658	368.5
Mean	8.46	12.4	26.6	18.4	37.4	42.7	61.7	26.2	17.8	38.1	21.2	12.3
Cfsm	0.294	0.431	0.924	0.639	1.30	1.48	2.14	0.910	0.618	1.32	0.736	0.427
In.	0.34	0.48	1.07	0.73	1.35	1.71	2.39	1.05	0.69	1.52	0.85	0.48

Calendar year 1954: Max 494 Min 5.3 Mean 27.7 Cfsm 0.962 In. 13.08
 Water year 1954-55: Max 394 Min 6.0 Mean 26.8 Cfsm 0.931 In. 12.66

Peak discharge (base, 1,000 cfs)--No peak above base.

* Discharge measurement made on this day.

Reddies River at North Wilkesboro, N. C.

Location.--Lat 36°10', long 81°10', on left bank 400 ft upstream from highway bridge, 14 miles northwest of North Wilkesboro, Wilkes County, 14 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 1955.

Gage.--Water-stage recorder. Datum of gage is 978.62 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--16 years, 135 cfs.

Extremes.--Maximum discharge during year, 3,270 cfs Apr. 14 (gage height, 8.00 ft); minimum, 25 cfs Oct. 7, 8 (gage height, 0.73 ft).

1939-55: 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 period of no gage-height record, which are poor. Records of chemical analyses and water temperatures for the water year 1955 are given in WSP 1400.

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)

0.6	19	4.0	925
1.0	65	5.0	1,410
1.5	142	5.5	1,680
2.0	237		
3.0	525		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	*56	*51	130	64	91	91	103	*64	50	*123	66
2	36	44	50	112	61	84	90	*102	61	47	95	80
3	30	50	46	96	61	79	90	97	58	46	90	71
4	29	45	45	88	52	79	84	96	60	73	71	71
5	28	50	47	84	55	82	82	92	58	98	65	78
6	27	48	115	79	499	102	88	91	57	82	65	97
7	44	72	73	354	92	90	88	86	57	69	96	86
8	28	40	60	69	174	84	80	86	85	102	88	80
9	28	40	68	66	128	80	78	84	68	104	256	57
10	29	38	69	65	111	78	75	82	61	72	130	58
11	28	38	58	75	111	78	161	82	171	176	98	56
12	28	38	55	*68	86	91	190	84	106	524	85	53
13	27	38	89	77	85	84	301	98	84	256	75	51
14	27	38	127	60	80	80	1,490	104	73	147	71	51
15	72	38	90	64	80	91	266	100	71	114	246	51
16	65	60	73	61	80	153	253	86	66	92	155	50
17	39	160	66	57	79	165	205	85	64	85	115	47
18	36	85	80	57	75	151	184	79	62	80	117	47
19	36	100	72	65	72	245	165	76	69	108	97	46
20	33	110	64	58	69	218	151	73	92	125	84	42
21	33	90	58	60	69	171	146	79	82	82	78	42
22	33	60	58	65	*72	347	180	149	69	73	94	45
23	32	55	55	61	134	226	137	120	69	66	149	73
24	32	50	55	58	109	171	144	102	64	65	85	56
25	32	50	51	55	106	147	149	97	57	66	75	79
26	32	48	50	56	96	140	132	84	58	61	71	73
27	32	46	50	80	96	114	123	76	55	65	69	57
28	33	48	52	56	94	109	117	75	55	117	64	55
29	50	75	348	58	-	104	111	73	52	137	62	51
30	42	60	539	53	-----	100	106	100	*52	85	65	63
31	37	-----	178	*48	-----	*94	-----	71	-----	118	*71	-----
Total	1,069	1,722	2,889	2,123	3,152	3,930	5,539	2,814	2,129	3,385	3,105	1,792
Mean	34.5	57.4	93.2	68.5	113	127	185	90.8	71.0	109	100	59.7
Cfsm	0.367	0.611	0.993	0.729	1.20	1.35	1.97	0.967	0.756	1.16	1.06	0.636
In.	0.42	0.68	1.14	0.84	1.25	1.56	2.19	1.11	0.84	1.34	1.23	0.71

Calendar year 1954: Max 1,290 Min 23 Mean 82.3 Cfsm 0.876 In. 11.91
Water year 1954-55: Max 1,490 Min 26 Mean 92.2 Cfsm 0.982 In. 13.31

Peak discharge (base, 2,000 cfs).--Apr. 14 (4:30 a.m.) 3,270 cfs (8.00 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 2-30; discharge estimated on basis of weather records, recorded range in stage, and records for nearby stations.

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 1955. Prior to October 1928, published as "at North Wilkesboro." Discharge records April 1903 to June 1909, published in water-supply papers, are considerably in error. Revised records April 1903 to May 1907 in Bulletin 34 of North Carolina Department of Conservation and Development.

Gage.--Water-stage recorder since Jan. 9, 1930. Datum of gage is 942.35 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Apr. 10, 1903, to June 30, 1909, and Oct. 15, 1920, to Apr. 10, 1929, staff or chain gages at site 1½ miles downstream 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, 113 cfs Sept. 30, 1954. Flood in July 1916 reached a stage of 34.5 ft (present site and datum), from floodmark (discharge, 116,000 cfs, from rating curve extended above 20,000 cfs as explained above).

Average discharge.--38 years (1903-6, 1920-55), 771 cfs.

Extremes.--Maximum discharge during year, 10,200 cfs Apr. 14 (gage height, 14.20 ft); minimum, 106 cfs Oct. 5 (gage height, 1.53 ft); minimum daily, 114 cfs Oct. 8, 1903-9, 1920-55: 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, 113 cfs Sept. 30, 1954.

Flood in July 1916 reached a stage of 34.5 ft (present site and datum), from floodmark (discharge, 116,000 cfs, from rating curve extended above 20,000 cfs as explained above).

Remarks.--Records good except those above 7,000 cfs, which are poor. Slight diurnal fluctuation at low flow caused by powerplant on Reddies River 1 mile above station.

Revisions (water years).--WSP 822: Drainage area. WSP 892: 1930(M). See also Records available.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.5	97	5.0	2,170
1.7	160	7.0	3,570
2.0	286	9.0	5,130
3.0	870	12.0	7,830

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	*179	*272	705	268	474	474	520	*321	245	*526	240
2	176	215	258	576	296	439	457	*503	306	236	389	245
3	160	254	240	486	301	411	468	497	301	227	362	254
4	129	215	232	434	277	400	434	491	296	316	352	254
5	117	245	240	406	272	406	428	474	291	360	301	249
6	120	240	624	378	2,070	445	462	462	277	469	286	395
7	117	211	452	357	2,930	428	474	445	389	519	321	249
8	114	198	326	331	1,200	372	423	434	497	400	347	215
9	120	198	347	321	774	368	400	411	368	555	561	206
10	133	190	384	316	614	357	395	400	326	451	400	211
11	129	190	321	352	602	362	581	400	882	829	331	198
12	126	187	291	*326	515	439	1,580	417	579	*1,750	301	206
13	129	187	436	316	423	474	1,420	480	400	1,600	272	190
14	126	187	686	286	410	428	7,260	544	347	774	258	187
15	275	187	486	291	410	445	2,570	579	316	590	674	187
16	356	297	389	281	417	730	1,520	486	301	491	602	183
17	202	844	341	272	417	1,080	1,160	451	281	428	411	175
18	175	439	417	272	384	902	968	417	262	417	395	171
19	175	520	406	301	357	1,200	850	395	311	389	347	175
20	157	585	347	296	352	1,420	767	373	468	946	301	180
21	160	428	311	277	347	1,060	723	373	423	561	277	157
22	160	316	296	301	*347	2,040	761	602	352	434	277	160
23	160	281	277	296	642	1,650	662	668	306	362	457	187
24	160	277	281	277	614	1,100	699	549	301	509	311	187
25	160	258	263	268	585	857	824	515	277	468	268	249
26	160	245	258	263	509	767	680	434	286	400	249	291
27	160	232	258	281	491	644	632	389	258	362	236	219
28	164	245	268	277	509	590	590	362	254	347	227	202
29	223	395	1,190	281	-	549	561	357	245	549	219	194
30	223	316	3,000	263	-----	515	532	439	*245	373	223	198
31	187	-	1,130	232	-----	*491	-----	352	-----	423	*232	-----
Total	5,095	8,761	15,027	10,319	17,333	21,823	29,755	14,219	10,472	16,780	10,713	6,394
Mean	164	292	485	333	619	704	992	459	349	541	346	213
Cfsm	0.333	0.592	0.984	0.675	1.26	1.43	2.01	0.931	0.708	1.10	0.702	0.432
In.	0.38	0.66	1.13	0.78	1.31	1.65	2.24	1.07	0.79	1.27	0.81	0.46

Calendar year 1954: Max 7,050 Min 113 Mean 467 Cfsm 0.947 In. 12.84
 Water year 1954-55: Max 7,260 Min 114 Mean 457 Cfsm 0.927 In. 12.57

Peak discharge (base, 8,000 cfs).--Apr. 14 (9 a.m.) 10,200 cfs (14.20 ft).

* Discharge measurement made on this day.

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 1955.

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.--24 years, 178 cfs.

Extremes.--Maximum discharge during year, 3,350 cfs June 11 (gage height, 7.67 ft); minimum recorded, 23 cfs Oct. 8 (gage height, 1.75 ft), but may have been less during period of no gage-height record.

1931-55: 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, 15 cfs about Sept. 19, 1954.

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

Revisions.--WSP 822: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.7	17	3.5	562
2.0	53	4.0	806
2.3	104	5.0	1,350
2.6	178	6.0	2,020
3.0	328		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a53	59	79	a170	75	133	131	138	88	70	82	a50
2	56	72	76	a140	82	119	126	133	84	66	70	a50
3	39	79	72	122	82	113	128	129	81	63	*63	a130
4	35	66	69	a115	76	113	122	126	79	87	60	a90
5	31	67	70	113	77	145	117	122	79	84	104	a70
6	29	66	219	111	750	194	119	117	77	79	66	a60
7	27	63	102	102	687	150	122	115	109	83	57	a55
8	*24	61	98	98	262	133	111	111	170	72	113	a50
9	30	61	98	96	184	124	108	*108	115	81	79	a50
10	33	57	111	94	*158	119	106	104	100	81	72	a50
11	33	56	90	104	161	117	152	104	1,300	168	64	a48
12	33	56	88	100	131	126	433	108	239	474	60	a46
13	31	56	111	94	125	115	378	124	153	346	57	*45
14	31	53	204	86	120	113	1,690	136	128	156	53	43
15	352	53	143	90	119	119	849	124	115	124	178	45
16	171	*61	115	86	115	252	378	111	106	106	104	42
17	76	372	102	82	113	210	285	106	100	94	257	40
18	63	158	126	81	104	210	242	102	94	94	303	40
19	60	113	126	88	102	324	221	96	94	84	108	37
20	56	117	106	86	98	273	197	92	115	77	81	35
21	53	108	98	81	98	228	184	94	96	74	70	31
22	53	90	95	88	108	539	254	235	*88	70	a65	34
23	52	84	90	88	150	*319	188	178	84	67	a60	40
24	51	82	86	84	128	235	191	207	82	70	a57	37
25	51	79	81	82	126	204	239	176	77	72	a55	51
26	51	74	79	81	115	191	184	119	70	83	a53	53
27	51	70	77	82	115	184	170	104	72	64	52	47
28	51	72	*77	82	124	156	158	98	70	80	a50	45
29	56	119	260	81	-	148	160	98	69	131	a52	42
30	72	88	490	79	---	138	143	122	69	76	a50	41
31	64	-	a220	70	---	136	---	96	---	72	a50	-
Total	1,898	2,610	3,876	2,956	4,585	5,680	7,876	3,832	4,209	3,326	2,543	1,497
Mean	61.2	87.0	125	95.4	164	183	263	124	140	107	85.3	49.9
Cfsm	0.506	0.719	1.03	0.788	1.36	1.51	2.17	1.02	1.16	0.884	0.705	0.412
In.	0.58	0.80	1.19	0.91	1.41	1.74	2.42	1.18	1.29	1.02	0.81	0.46

Calendar year 1954: Max 1,910 Min 17 Mean 117 Cfsm 0.967 In. 13.14
Water year 1954-55: Max 1,690 Min 24 Mean 123 Cfsm 1.02 In. 13.81

Peak discharge (base, 2,200 cfs).--Apr. 14 (5:30 a.m.) 2,940 cfs (7.20 ft); June 11 (4 a.m.) 3,350 cfs (7.67 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 Forbush Creek near Yadkinville.

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, 2¼ 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 1955.

Gage.--Water-stage recorder. Altitude of gage is 728 ft (by barometer).

Average discharge.--15 years, 21.2 cfs.

Extremes.--Maximum discharge during year, 925 cfs Apr. 15 (gage height, 7.96 ft); minimum, 1.2 cfs Sept. 21 (gage height, 0.41 ft).

1940-55: Maximum discharge, 2,450 cfs Sept. 30, 1944 (gage height, 11.02 ft), from rating curve extended above 700 cfs on basis of velocity-area study; minimum, that of Sept. 21, 1955.

Remarks.--Records good.

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)

0.4	1.1	1.5	62
.5	2.9	2.0	106
.6	5.5	3.0	216
.8	12	4.0	356
1.0	23	5.0	466

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	7.1	12	16	11	14	12	12	8.1	4.4	4.9	3.6
2	*2.0	9.0	12	15	11	13	12	12	7.7	4.1	3.9	3.6
3	1.8	8.7	11	14	10	12	12	7.4	5.9	*3.6	4.9	
4	1.6	8.1	10	14	9.9	12	11	11	7.4	3.9	2.9	4.9
5	1.5	11	11	13	10	12	11	11	7.1	4.4	2.7	4.4
6	1.5	9.4	42	12	245	13	12	10	6.8	4.4	2.9	3.9
7	1.5	8.7	20	12	151	12	12	10	8.1	4.1	2.7	3.4
8	1.6	8.1	16	12	47	12	11	10	9.4	12	3.2	2.9
9	2.4	8.1	16	12	30	12	11	*9.8	7.7	28	4.7	2.7
10	2.4	7.7	15	11	*23	11	10	9.8	7.7	9.0	3.4	2.9
11	2.4	7.7	13	13	24	11	14	9.8	37	8.1	3.4	2.7
12	2.2	7.7	12	12	19	12	23	9.8	10	11	3.6	2.4
13	2.2	7.7	34	11	17	11	86	14	8.7	9.8	2.9	*2.2
14	2.2	7.7	74	10	16	12	434	13	8.1	7.4	3.2	2.2
15	217	7.4	32	11	15	13	358	11	7.7	7.1	15	2.2
16	23	*12	21	11	14	24	52	10	7.4	6.1	4.1	2.0
17	10	53	17	10	15	23	34	10	7.1	5.5	33	1.8
18	8.7	29	24	10	14	21	26	9.8	6.8	4.9	23	1.6
19	8.4	17	20	12	13	45	21	9.0	7.1	4.7	7.1	1.5
20	7.7	22	17	11	13	36	19	8.7	7.4	4.4	5.2	1.5
21	7.4	16	15	11	12	26	17	12	*6.5	4.4	4.7	1.3
22	7.1	13	14	12	12	32	16	36	6.5	4.4	4.7	1.3
23	7.1	13	13	12	14	*23	15	34	6.5	4.1	5.2	1.5
24	6.8	13	13	12	13	19	17	14	6.1	3.9	4.1	2.0
25	6.8	12	12	12	14	16	41	12	5.8	3.6	3.9	3.9
26	6.8	11	12	11	13	16	18	10	5.5	3.6	3.9	3.9
27	6.5	10	12	12	13	14	15	9.8	5.2	3.2	3.6	2.9
28	6.5	12	*12	11	13	13	14	9.4	4.7	2.9	3.6	2.9
29	8.7	26	30	11	-	13	14	8.7	4.7	3.2	3.4	2.9
30	7.7	14	30	11	-----	12	13	8.4	4.4	3.6	3.4	32
31	7.1	-	*19	11	-----	12	-----	8.1	-----	8.1	3.4	-
Total	380.2	407.1	611	369	811.8	527	1,361	375.1	240.6	192.2	179.3	111.9
Mean	12.3	13.6	19.7	11.9	29.0	17.0	45.4	12.1	8.02	6.20	5.78	3.73
Cfsm	0.567	0.627	0.908	0.548	1.34	0.783	2.09	0.558	0.370	0.286	0.266	0.172
In.	0.65	0.70	1.05	0.63	1.39	0.90	2.33	0.64	0.41	0.33	0.31	0.19

Calendar year 1954: Max 862 Min 1.4 Mean 19.6 Cfsm 0.903 In. 12.28
Water year 1954-55: Max 434 Min 1.3 Mean 15.2 Cfsm 0.700 In. 9.53

Peak discharge (base, 570 cfs).--Oct. 15 (2:30 p.m.) 570 cfs (5.77 ft); Apr. 15 (2:30 a.m.) 925 cfs (7.96 ft).

* Discharge measurement made on this day.

Yadkin River at Yadkin College, N. C.

Location.--Lat 35°51'24", long 80°23'09", on left bank 80 ft downstream from bridge on U. S. Highway 64, $1\frac{1}{2}$ miles south of Yadkin College, Davidson County, and $6\frac{1}{4}$ miles downstream from Reedy Creek.

Drainage area.--2,280 sq mi, approximately.

Records available.--July 1928 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 638.65 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--27 years, 2,849 cfs.

Extremes.--Maximum discharge during year, 31,000 cfs Apr. 15 (gage height, 20.38 ft); minimum observed, 177 cfs Oct. 12 (gage height, -0.42 ft); minimum daily, 330 cfs Oct. 9. 1928-55: Maximum discharge, 80,200 cfs Aug. 15, 1940 (gage height, 33.75 ft); minimum, that of Oct. 12, 1954; minimum daily, that of Oct. 9, 1954. Maximum stage known, 35.0 ft during July 1916, from floodmarks (discharge, 86,600 cfs).

Remarks.--Records good except those for periods when gage-height record was reconstructed on basis of wire-weight-gage readings, and periods of fragmentary or doubtful gage-height record, which are fair. Diurnal fluctuation during low flow caused by small powerplant with little storage capacity 10 miles upstream from station. Records of sediment loads for the water year 1955 are given in WSP 1400.

Revisions (water years).--WSP 822: Drainage area. WSP 852: 1935-37(m).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

-0.1	320	6.0	5,900
0.0	370	9.0	9,740
.5	620	12.0	14,000
1.0	955	14.0	17,300
1.5	1,350	17.0	23,000
2.0	1,790	20.0	30,000
4.0	3,750		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	f400	932	1,660	3,550	1,190	2,020	1,920	2,100	1,520	d978	1,270	g810
2	f345	852	1,430	2,550	1,270	2,060	1,790	2,060	1,390	d978	1,560	g824
3	f445	925	1,310	2,200	1,350	1,920	1,840	1,920	1,270	d940	1,270	g880
4	555	*1,020	1,230	1,880	1,310	1,790	1,840	1,920	1,190	g992	1,150	g895
5	f460	1,110	1,230	1,740	1,230	1,700	1,740	1,880	1,230	g1,190	1,070	g1,070
6	f405	1,030	f2,520	1,660	2,980	3,320	1,700	1,840	1,270	g1,190	1,070	g992
7	f410	1,020	f3,250	1,560	g18,100	2,850	1,840	1,700	1,190	g1,190	1,070	g970
8	f360	1,010	2,300	1,430	g12,000	2,150	1,840	1,700	1,390	g1,390	1,000	g1,030
9	f330	918	1,790	1,430	g4,820	1,920	1,610	1,700	2,250	g1,700	1,520	g902
10	g375	895	1,840	*1,430	g3,450	1,790	<u>1,560</u>	1,610	1,660	g1,790	1,660	g775
11	f445	873	1,700	1,520	g2,950	1,700	1,610	1,560	3,940	g2,020	1,840	g754
12	f370	*852	1,610	1,520	g2,850	1,660	2,490	1,560	g3,530	g2,650	1,310	g754
13	f445	810	f2,440	1,520	g2,400	1,790	4,250	1,840	3,750	8,510	1,110	g704
14	f370	831	g4,750	1,390	g2,100	1,880	17,300	2,150	2,100	4,700	1,070	g704
15	6,100	866	f4,050	1,310	g2,060	1,740	<u>29,200</u>	2,020	1,700	2,650	1,350	*g698
16	13,100	859	2,750	1,310	g2,020	1,880	18,500	1,970	1,560	2,020	1,480	g674
17	3,180	2,840	2,060	1,350	g1,970	3,300	6,140	1,840	1,430	1,660	2,200	g650
18	d1,560	5,420	1,920	1,270	1,920	3,550	4,650	1,700	1,350	1,450	4,350	g632
19	d1,110	2,750	2,150	1,310	1,740	3,450	g3,950	1,610	1,510	1,350	2,850	800
20	d978	2,400	2,100	1,350	1,700	5,300	g3,550	1,520	1,350	1,270	1,870	605
21	d910	2,750	1,790	1,350	1,660	4,750	g3,050	1,430	1,390	1,390	1,270	585
22	d831	2,200	1,560	1,310	1,610	4,050	g2,950	2,060	1,520	1,740	1,110	530
23	d728	1,700	1,520	1,430	1,610	6,260	g3,050	4,250	d1,520	1,230	1,070	555
24	d768	*1,560	1,390	1,480	2,100	5,080	g2,750	3,350	*d1,430	1,110	1,110	575
25	d796	1,430	1,390	1,590	2,500	3,750	g4,150	2,750	d1,270	1,840	1,190	674
26	d710	1,270	1,350	1,350	2,100	3,150	3,650	2,450	d1,230	1,790	1,020	761
27	d716	1,270	1,350	1,310	2,020	2,850	2,950	1,880	d1,150	1,250	910	845
28	740	1,230	1,270	1,390	2,020	2,500	2,550	1,560	d1,110	1,030	895	796
29	768	2,300	1,310	1,310	-	2,250	2,400	1,520	d1,030	970	845	716
30	859	2,060	2,700	1,310	-----	*2,150	2,200	1,480	d992	1,390	817	692
31	992	-	6,620	1,270	-----	2,620	-----	1,700	-----	1,270	g810	-
Total	40,561	45,783	66,340	48,180	85,030	86,580	139,020	60,630	53,422	53,588	42,917	22,652
Mean	1,308	1,526	2,140	1,554	3,037	2,793	4,634	1,956	1,781	1,729	1,384	755
Cfsm	0.574	0.669	0.939	0.682	1.33	1.22	2.03	0.858	0.781	0.758	0.607	0.331
In.	0.66	0.75	1.08	0.79	1.39	1.41	2.27	0.99	0.87	0.87	0.70	0.37
Calendar year 1954: Max			31,400	Min	330	Mean	2,062	Cfsm	0.904	In.	12.28	
Water year 1954-55: Max			29,200	Min	330	Mean	2,040	Cfsm	0.895	In.	12.15	

Peak discharge (base, 18,000 cfs).--Feb. 7 (3 p.m.) 20,000 cfs (15.53 ft); Apr. 15 (9 p.m.) 31,000 cfs (20.38 ft).

* Discharge measurement made on this day.

d Discharge computed on basis of doubtful gage-height record.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

g Computed from once-daily, or more frequent, wire-weight-gage readings.

Rocky River at Turnersburg, N. C.

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.--85.5 sq mi.

Records available.--April 1940 to September 1955.

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.--15 years, 107 cfs.

Extremes.--Maximum discharge during year, 1,370 cfs Apr. 14 (gage height, 5.15 ft); minimum, 7.3 cfs Oct. 1 (gage height, 1.07 ft); minimum daily, 13 cfs Oct. 1, 7. 1940-55: Maximum discharge, 6,080 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, 13 cfs Sept. 19, Oct. 1, 7, 1954.

A stage of about 18 ft was reached by flood sometime during the years 1936 to 1938, from information by local resident.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Considerable diurnal fluctuation at low flow caused by mills above station in some past years but only slight fluctuation in recent years.

Revisions (water years).--WSP 1333: 1945(M).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 14				Apr. 15 to Sept. 30			
1.2	13	3.0	348	1.2	17	2.0	103
1.4	26	3.5	542	1.4	30	2.5	203
1.6	43	4.0	776	1.6	47	3.0	348
1.8	64	4.7	1,120	1.8	71		
2.0	95	5.0	1,270				
2.5	200						

Note.--Same as preceding table above 3.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	30	49	a95	53	65	63	71	45	36	a75	31
2	17	33	46	a85	56	63	62	68	44	*35	a55	31
3	19	38	43	a75	56	60	62	67	42	a40	a45	32
4	17	*36	41	a70	53	61	58	63	42	a45	a40	32
5	15	42	43	67	51	60	57	62	42	a50	a40	34
6	14	40	*78	62	306	58	63	61	41	71	a90	32
7	13	37	*77	60	656	57	*65	58	40	*126	a45	30
8	14	35	56	56	240	55	58	57	61	64	a85	26
9	16	34	58	53	154	54	56	54	52	51	a55	26
10	17	34	60	52	117	54	55	52	44	44	a55	26
11	17	34	53	52	113	55	61	52	359	104	a50	26
12	17	34	50	58	106	62	154	58	142	76	a45	25
13	17	34	64	55	83	68	321	86	82	80	a40	24
14	16	33	148	51	85	62	1,100	86	66	61	a40	24
15	56	33	111	49	81	61	496	68	57	52	a85	24
16	56	40	78	50	74	62	262	63	54	46	a60	23
17	36	145	*67	*49	75	68	180	61	49	42	a50	22
18	29	74	78	48	68	75	146	58	47	39	*71	21
19	28	53	81	52	65	88	127	*54	49	36	55	21
20	26	53	68	54	63	109	114	50	55	36	44	19
21	26	51	62	50	62	104	105	51	51	a40	40	19
22	26	45	57	56	61	119	98	128	46	a100	36	19
23	26	43	55	61	67	158	61	231	47	a55	62	26
24	26	44	55	57	71	113	107	117	45	a40	42	27
25	26	42	51	57	*75	97	190	62	48	a40	36	43
26	26	40	50	57	70	90	107	68	50	a45	35	42
27	26	40	49	57	67	78	94	61	42	a40	33	35
28	26	41	49	58	67	72	86	55	42	a35	32	*30
29	30	68	89	58	-	70	62	51	40	a95	31	29
30	32	57	a150	55	-----	67	76	50	38	a55	30	29
31	30	-	a115	51	-----	64	-----	48	-----	a50	29	-
Total	753	1,363	2,131	1,808	3,095	2,329	4,596	2,191	1,864	1,749	1,541	828
Mean	24.3	45.4	68.7	58.3	111	75.1	153	70.7	62.1	56.4	49.7	27.6
Cfsm	0.284	0.531	0.804	0.682	1.30	0.878	1.79	0.827	0.726	0.660	0.581	0.323
In.	0.33	0.59	0.93	0.79	1.35	1.01	2.00	0.95	0.81	0.76	0.67	0.36

Calendar year 1954: Max 2,460 Min 13 Mean 88.1 Cfsm 1.03 In. 14.00
 Water year 1954-55: Max 1,100 Min 13 Mean 66.4 Cfsm 0.777 In. 10.55

Peak discharge (base, 2,000 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 nearby stations.

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.--313 sq mi.

Records available.--October 1938 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 660 ft (by barometer).

Average discharge.--17 years, 307 cfs.

Extremes.--Maximum discharge during year, 2,900 cfs Apr. 15 (gage height, 9.36 ft); minimum, 35 cfs Oct. 8, 9 (gage height, 1.30 ft).

1938-55: Maximum discharge, 9,240 cfs Jan. 23, 1954 (gage height, 16.73 ft); minimum, that of Oct. 8, 9, 1954.

Maximum stage known, 22.6 ft Oct. 3, 1929, from floodmark established by local resident.

Remarks.--Records good.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.3	35	3.0	450
1.5	58	4.0	778
1.7	90	5.0	1,120
2.0	150	7.0	1,840
2.5	290	9.0	2,700

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	85	155	255	155	197	184	195	120	101	141	75
2	39	85	139	225	167	195	182	184	116	97	130	78
3	40	99	130	208	169	182	179	177	112	94	104	80
4	45	101	124	187	162	179	177	172	108	128	92	85
5	43	110	126	179	155	*179	169	167	106	104	87	88
6	40	114	252	174	715	174	177	160	103	132	250	85
7	38	104	240	167	1,680	172	195	152	101	*184	155	80
8	35	97	182	160	1,350	167	182	148	156	214	191	72
9	37	94	169	155	610	160	167	143	191	217	276	66
10	40	94	182	155	434	157	162	139	128	132	169	64
11	42	90	*164	187	370	157	169	137	445	148	139	64
12	43	90	148	182	357	167	307	137	656	312	114	64
13	43	90	217	167	274	211	*803	179	258	222	101	61
14	42	90	396	155	258	192	2,560	268	182	182	95	60
15	214	92	354	148	255	179	2,700	195	155	150	166	60
16	200	95	249	148	237	182	1,500	167	141	132	193	60
17	122	282	206	146	228	200	659	157	130	118	130	55
18	85	293	222	143	222	217	482	148	124	106	*225	53
19	80	167	246	152	208	249	396	143	124	101	146	52
20	78	157	217	167	200	306	338	137	246	118	120	49
21	76	160	192	*162	192	309	300	132	210	122	104	45
22	73	139	174	164	187	328	277	234	146	228	97	45
23	72	130	164	190	190	399	252	577	139	122	104	50
24	72	132	160	190	225	351	249	348	137	112	120	58
25	72	128	155	184	252	287	562	243	124	148	95	101
26	72	120	146	182	222	268	344	190	143	137	87	150
27	*73	114	143	182	206	240	264	*164	124	135	85	106
28	73	126	146	190	200	220	237	148	114	103	82	87
29	78	222	150	184	-	208	220	139	108	160	76	*80
30	87	197	303	174	-----	197	206	130	104	137	75	87
31	87	--	341	164	-----	192	-----	124	-----	120	75	-----
Total	2,181	3,897	6,192	5,426	9,880	6,821	14,599	5,734	5,051	4,516	4,024	2,160
Mean	70.4	130	200	175	353	220	487	185	168	146	150	72.0
Cfsm	0.225	0.415	0.639	0.559	1.13	0.703	1.56	0.591	0.537	0.468	0.415	0.230
In.	0.26	0.46	0.74	0.64	1.17	0.81	1.73	0.68	0.60	0.54	0.48	0.26

Calendar year 1954: Max 7,090 Min 35 Mean 256 Cfsm 0.818 In. 11.11

Water year 1954-55: Max 2,700 Min 35 Mean 193 Cfsm 0.617 In. 8.37

Peak discharge (base, 2,700 cfs).--Apr. 15 (1 a.m.) 2,900 cfs (9.36 ft).

* Discharge measurement made on this day.

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 1955.

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.

Extremes.--Maximum discharge during year, 2,530 cfs Feb. 7 (gage height, 10.67 ft); minimum, 18 cfs Oct. 8; minimum gage height, 1.01 ft Sept. 23.
1951-55: Maximum discharge, 6,110 cfs Jan. 22, 1954 (gage height, 18.30 ft); minimum, that of Oct. 8, 1954; minimum gage height, that of Sept. 23, 1955.

Remarks.--Records good. Slight diurnal fluctuation at low flow caused by mills above station.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 20 to Dec. 12)

Oct. 1 to Feb. 6, Apr. 15 to May 22		Feb. 7 to Apr. 14, May 23 to Sept. 30	
1.2	21	1.0	12
1.5	56	1.2	31
2.0	122	1.5	63
3.0	284	2.0	130
4.0	482	3.0	291
		4.0	482
		5.0	702
		6.0	950
		7.0	1,250
		8.0	1,550

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	51	74	178	75	108	118	111	83	64	162	51
2	52	58	69	163	78	107	118	108	79	*62	91	50
3	45	69	63	142	78	97	118	105	75	60	69	52
4	39	62	61	132	71	102	112	104	74	78	59	61
5	31	71	63	125	66	102	111	98	74	78	59	61
6	31	72	*160	119	753	109	116	93	73	118	74	59
7	25	60	131	112	1,240	104	*127	93	74	96	55	49
8	23	56	95	107	374	96	111	90	139	102	127	42
9	29	56	97	107	236	96	108	85	92	80	87	40
10	29	54	102	98	179	94	104	85	84	73	82	43
11	34	54	85	114	179	94	116	86	700	113	67	44
12	34	54	81	111	160	104	260	88	237	100	59	43
13	29	52	108	104	126	108	300	118	140	149	55	40
14	29	52	264	97	125	104	1,410	132	114	102	50	37
15	145	52	224	97	126	105	1,070	108	102	85	106	37
16	158	75	158	94	120	126	448	98	93	75	*88	37
17	64	400	134	*89	120	150	266	97	91	69	90	37
18	55	190	166	85	114	146	216	97	83	68	200	31
19	54	111	170	95	107	190	189	*90	89	60	98	37
20	52	102	138	94	107	232	171	82	111	58	73	31
21	49	86	124	84	104	200	155	84	92	61	62	28
22	49	72	116	93	104	324	148	260	84	108	76	27
23	48	69	112	97	120	318	137	276	83	68	131	35
24	48	71	104	88	118	224	161	186	79	60	73	49
25	48	61	97	85	*120	184	216	139	88	68	58	70
26	48	57	94	84	109	165	155	115	83	76	53	76
27	48	55	95	86	108	142	138	102	78	62	51	58
28	*45	60	95	86	108	136	130	94	73	51	49	*50
29	60	121	176	84	-	132	124	89	70	132	51	46
30	63	89	358	77	-----	122	116	88	65	74	49	49
31	58	-----	232	68	-----	120	-----	85	-----	84	48	-----
Total	1,549	2,492	4,066	3,195	5,325	4,441	7,069	3,486	3,402	2,534	2,472	1,368
Mean	50.0	83.1	131	103	190	143	236	112	115	81.7	79.7	45.6
Cfsm	0.327	0.543	0.856	0.673	1.24	0.935	1.54	0.732	0.739	0.534	0.521	0.298
In.	0.38	0.61	0.99	0.78	1.29	1.08	1.72	0.85	0.83	0.62	0.60	0.33
Calendar year 1954: Max	3,640			Min 23		Mean 142		Cfsm 0.928	In. 12.59			
Water year 1954-55: Max	1,410			Min 23		Mean 113		Cfsm 0.739	In. 10.06			

Peak discharge (base, 2,000 cfs).--Feb. 7 (1 a.m.), 2,530 cfs (10.67 ft); Apr. 15 (5 a.m.), 2,290 cfs (10.10 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 1955.

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.--25 years (1930-55), 606 cfs.

Extremes.--Maximum discharge during year, 5,380 cfs Apr. 15 (gage height, 15.26 ft); minimum, 18 cfs Dec. 4 (gage height, 1.00 ft); minimum daily, 39 cfs Oct. 10.

1928-55: 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 verified by records of other streams; 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 and those for period of no gage-height record, which are poor. Large diurnal fluctuation and slight regulation during low and medium flow caused by Erwin Cotton Mill above station.

Revisions.--WSP 822: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.1	37	8.0	2,450
1.3	89	11.0	3,550
1.5	154	13.0	4,350
2.0	324	15.0	5,240
3.0	696	16.0	5,700
5.0	1,440		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	144	306	469	292	361	330	363	227	a160	329	124
2	75	177	227	418	280	367	317	381	250	*144	298	124
3	75	131	289	376	306	361	328	320	204	197	209	138
4	96	184	273	346	293	352	348	298	236	177	176	147
5	111	204	156	337	248	*569	310	340	164	187	170	147
6	86	207	682	332	1,210	235	311	327	200	207	221	147
7	83	204	494	312	3,480	323	*338	250	a250	286	263	144
8	*59	*167	388	253	3,480	318	341	281	a320	317	209	128
9	48	161	328	282	1,540	268	297	319	425	324	428	128
10	39	167	348	326	791	308	298	261	a250	237	305	115
11	89	174	*310	303	696	297	316	273	a500	253	220	78
12	89	167	296	354	658	255	544	238	1,330	406	176	92
13	89	164	539	316	506	388	1,150	290	a500	348	159	99
14	89	164	1,080	269	447	374	4,110	473	a350	314	190	99
15	652	174	799	254	462	317	5,290	370	a250	288	150	99
16	878	161	483	268	421	329	4,150	354	a230	214	*334	102
17	195	474	396	242	396	384	1,540	305	a220	152	268	105
18	187	677	480	283	407	423	880	254	a220	209	506	108
19	141	360	446	255	398	487	717	*311	a220	159	328	102
20	151	328	415	313	338	604	621	223	a450	164	254	75
21	134	360	352	*298	353	587	579	270	a350	206	204	72
22	131	282	341	243	346	642	496	448	a270	293	177	78
23	131	254	320	356	349	830	462	1,020	a240	230	177	78
24	131	258	267	372	417	676	449	831	a220	188	230	108
25	128	244	269	339	550	537	1,020	482	a210	247	213	92
26	131	227	275	344	477	484	712	367	a270	190	170	230
27	134	213	291	342	310	436	501	374	a240	233	131	207
28	131	220	247	344	340	420	440	237	a220	185	138	*187
29	141	537	265	331	-	353	415	269	a200	171	154	138
30	170	392	540	310	-----	361	376	266	a180	274	154	108
31	164	-	637	290	-----	345	-----	254	-----	189	141	-----
Total	4,838	7,576	12,539	9,877	19,791	12,791	27,986	11,049	9,396	7,149	7,082	3,599
Mean	156	253	404	319	707	413	933	356	313	231	228	120
Cfsm	0.274	0.445	0.710	0.561	1.24	0.726	0.626	0.550	0.406	0.401	0.401	0.211
In.	0.32	0.50	0.82	0.65	1.29	0.84	1.83	0.72	0.61	0.47	0.46	0.24
Calendar year 1954: Max			12,900	Min 37		Mean 499	Cfsm 0.877	In. 11.90				
Water year 1954-55: Max			5,290	Min 39		Mean 366	Cfsm 0.643	In. 8.75				

* Discharge measurement made on this day.

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

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 1955.

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.--15 years, 85.5 cfs.

Extremes.--Maximum discharge during year, 959 cfs Apr. 15 (gage height, 9.29 ft); minimum, 10 cfs Oct. 7 (gage height, 0.20 ft).
1940-55: 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 (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. Town of Statesville diverts about three-quarters of a cubic foot per second into basin above station.

Revisions (water years).--WSP 1112: 1944-46.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-15			Oct. 16 to Sept. 30		
0.2	10		0.2	10	3.0 237
.4	17		.4	16	4.0 348
.6	27		.6	24	5.0 475
1.0	51		1.0	48	7.0 710
1.9	124		1.5	87	9.0 920
			2.0	134	

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	20	37	44	48	54	48	47	30	26	25	18
2	13	23	36	44	51	53	48	46	30	25	24	22
3	13	26	34	42	49	49	49	44	29	34	24	21
4	12	24	33	41	46	49	47	43	28	48	23	22
5	12	33	34	40	45	*49	46	42	28	25	23	20
6	12	28	133	40	333	49	54	41	27	30	55	19
7	11	24	58	39	*773	48	56	40	27	*41	26	18
8	11	*24	44	37	250	45	48	39	35	28	126	16
9	13	24	45	39	139	44	45	37	32	26	60	15
10	14	23	47	38	102	44	44	37	30	26	32	15
11	14	23	*39	63	97	45	47	34	78	59	28	14
12	13	23	39	51	85	51	117	34	51	196	26	14
13	13	23	85	44	69	49	*217	50	35	56	24	13
14	13	23	174	41	69	54	687	68	31	40	26	13
15	110	24	84	41	65	51	706	44	30	34	79	13
16	44	26	60	40	63	52	206	44	28	28	33	13
17	21	58	53	39	61	61	130	53	27	26	29	12
18	19	36	69	38	57	60	99	38	27	25	38	12
19	19	31	63	42	54	62	83	37	46	34	*28	12
20	18	35	53	45	53	69	74	37	133	96	24	12
21	18	34	48	*41	52	66	69	41	47	44	21	11
22	18	29	45	46	52	101	62	87	37	37	22	12
23	19	30	44	54	54	80	59	115	53	28	30	12
24	19	33	43	53	57	66	62	55	39	25	24	12
25	18	30	40	54	69	61	116	48	35	38	21	37
26	19	28	39	54	59	63	67	41	48	35	18	34
27	*19	25	39	57	56	56	59	*58	42	25	16	22
28	18	31	39	60	54	54	55	36	31	24	17	20
29	23	81	42	56	-	52	52	34	28	27	16	*19
30	23	44	55	52	-----	50	49	32	28	25	16	34
31	22	--	47	47	-----	49	-----	31	-----	25	15	--
Total	624	919	1,701	1,422	2,962	1,736	3,701	1,413	1,160	1,233	971	527
Mean	20.1	30.6	54.9	45.9	106	56.0	123	45.6	38.7	39.8	31.3	17.6
Cfam	0.230	0.350	0.628	0.525	1.21	0.641	1.41	0.522	0.443	0.455	0.358	0.201
In.	0.27	0.38	0.72	0.61	1.26	0.74	1.57	0.60	0.49	0.52	0.41	0.22

Calendar year 1954: Max 1,900 Min 11 Mean 71.3 Cfam 0.816 In. 11.07
Water year 1954-55: Max 887 Min 11 Mean 50.3 Cfam 0.576 In. 7.80

Peak discharge (base, 1,050 cfs).--No peak above base.

* Discharge measurement made on this day.

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 September 1955.

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.--15 years, 161 cfs.

Extremes.--Maximum discharge during year, 5,700 cfs Oct. 16 (gage height, 15.52 ft); minimum, 0.4 cfs Oct. 8 (gage height, 0.89 ft).
1940-55: Maximum discharge, 14,800 cfs Sept. 25, 1947 (gage height, 22.12 ft, site then in use, from floodmarks); minimum, that of Oct. 8, 1954.

Remarks.--Records good. Town of Lexington diverted an average of 2.6 cfs during water year 1955 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.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-14)

Oct. 1-16				Oct. 17 to Sept. 30			
0.7	0.6	2.6	183	1.2	5.3		
.9	1.5	3.0	301	1.4	9.8		
1.0	2.3	4.0	570	1.6	18		
1.1	3.5	5.0	820	1.8	33		
1.2	5.3	7.0	1,300	2.0	61		
1.4	10	9.0	1,850	2.5	122		
1.6	18	11.0	2,580	2.7	224		
1.8	33	13.0	3,600	3.0	306		
2.0	55	15.0	5,250	4.0	570		
2.3	108						

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	37	170	94	100	150	78	67	27	11	50	20
2	3.3	34	134	104	109	143	76	58	24	10	23	33
3	2.7	61	109	98	107	115	78	53	23	9.6	14	372
4	1.9	65	92	98	86	120	72	51	23	9.8	11	280
5	1.2	111	93	84	78	115	65	48	23	12	10	100
6	*1.1	140	876	80	753	143	70	44	22	15	28	56
7	1.2	88	843	76	3,250	199	86	41	*20	48	20	43
8	*.9	38	238	67	1,350	160	84	40	22	32	*187	33
9	1.2	33	221	67	329	109	63	37	24	107	123	26
10	1.4	32	329	67	227	*92	61	33	21	49	30	24
11	2.3	29	213	253	379	92	65	33	32	76	20	24
12	3.1	*28	158	213	608	94	100	33	45	138	18	22
13	3.3	29	662	145	252	109	109	41	28	41	14	22
14	3.5	29	2,560	111	183	131	1,760	94	20	26	764	20
15	1,330	28	1,420	98	173	122	2,600	58	19	21	*1,080	*19
16	*4,850	27	*340	96	158	127	892	43	18	18	449	18
17	1,080	38	*216	82	145	175	319	39	17	16	411	17
18	115	53	238	74	134	188	221	41	14	16	1,460	17
19	72	95	260	86	118	255	173	39	32	12	1,010	17
20	53	232	188	96	111	303	143	33	25	*21	148	13
21	44	751	150	90	100	218	122	30	22	27	60	13
22	38	883	129	118	94	235	*109	93	17	18	61	13
23	33	218	118	216	98	207	94	544	19	16	98	13
24	31	232	113	207	126	146	86	225	22	12	53	14
25	29	183	100	210	353	134	303	100	17	24	38	19
26	26	131	90	*191	218	136	193	74	17	15	31	33
27	26	102	86	191	168	127	120	51	22	11	27	25
28	25	100	86	188	162	107	100	43	16	9.6	25	19
29	43	480	134	158	-	94	86	37	13	48	23	18
30	63	351	143	131	-----	86	76	35	12	53	22	21
31	45	---	107	107	-----	80	-----	32	-----	31	22	---
Total	7,934.1	4,656	10,616	3,886	9,967	4,514	8,404	2,190	658	951.0	6,350	1,364
Mean	256	155	342	125	356	146	280	70.6	21.9	30.7	205	45.5
Cfs/m	1.47	0.891	1.97	0.718	2.05	0.839	1.61	0.406	0.126	0.176	1.18	0.261
In.	1.70	1.00	2.27	0.83	2.13	0.96	1.80	0.47	0.14	0.20	1.36	0.29

Calendar year 1954: Max 4,850 Min 0.9 Mean 161 Cfs/m 1.04 In. 14.15
Water year 1954-55: Max 4,850 Min 0.9 Mean 168 Cfs/m 0.966 In. 13.15

Peak discharge (base, 2,400 cfs).--Oct. 16 (8:30 a.m.) 5,700 cfs (15.52 ft); Dec. 14 (5 p.m.) 2,340 cfs (11.62 ft); Feb. 7 (2:30 p.m.) 3,600 cfs (13.00 ft); Apr. 15 (4 a.m.) 3,180 cfs (12.33 ft).
* Discharge measurement made on this day.

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, $1\frac{1}{2}$ miles upstream from Lick Creek, and at mile 253.

Drainage area.--3,980 sq mi, approximately.

Records available.--January 1919 to November 1927, November 1941 to September 1955.

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.--20 years (1919-25, 1926-27, 1942-55), 4,648 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 46,800 cfs Apr. 16 (gage height, 12.40 ft); minimum, 15 cfs Nov. 15; minimum daily, 21 cfs Aug. 7.

1919-27, 1941-55: Maximum discharge, 76,600 cfs July 21, 1919 (gage height, 15.9 ft, present datum, from floodmarks determined by Tallassee Power Co.), from rating curve extended above 53,000 cfs on basis of velocity-area study; minimum, 10 cfs Aug. 10, 1942 (gage height, 1.84 ft); minimum daily, 12 cfs Aug. 9, 1942.

Maximum stage known, 22.1 ft (present datum) in July 1916, from floodmarks, from records by Tallassee Power Co.

Remarks.--Records good except those below 2,000 cfs, which are fair. Except for major floods, flow completely regulated by High Rock Reservoir since 1927 (usable capacity, 10,230,000,000 cu ft).

Revisions (water years).--WSP 972: 1919(M), drainage area. Previously published records for this station prior to November 1941 are occasionally subject to error, owing to faulty or no gage-height record and a rating curve extended above 26,000 cfs which gave results considerably larger than present rating.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.0	19	4.0	1,710
2.1	28	4.5	2,730
2.2	42	5.0	4,130
2.4	83	6.0	7,780
2.7	183	7.0	12,500
3.0	380	8.0	23,500
3.5	940	11.0	36,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,990	3,390	3,760	3,450	5,130	5,130	5,310	5,130	4,130	5,160	2,800	2,980
2	37	3,270	3,720	2,200	4,900	5,310	5,310	4,790	4,830	5,330	2,780	2,840
3	27	2,730	4,030	3,120	4,790	5,130	5,130	4,620	4,740	5,330	2,740	34
4	2,020	2,390	4,180	3,210	4,780	4,960	4,480	4,620	3,750	2,790	2,840	32
5	1,830	3,130	2,100	3,210	2,380	5,720	4,010	5,770	48	3,910	1,810	1,420
6	1,850	2,900	42	3,230	184	4,790	5,050	4,940	3,370	3,900	34	2,520
7	1,000	34	1,360	3,350	1,180	4,170	5,310	4,370	3,190	3,170	21	1,980
8	1,690	2,350	3,220	4,060	2,950	5,050	5,330	4,790	3,400	3,680	2,860	398
9	458	3,000	2,570	1,560	5,130	4,950	38	5,130	4,060	3,150	1,470	1,240
10	32	2,850	3,260	3,780	5,130	5,160	26	5,950	3,290	36	1,250	1,630
11	480	3,050	4,130	3,140	4,450	6,380	4,710	4,880	3,610	2,050	770	26
12	1,010	3,430	3,970	3,740	4,620	4,120	4,810	5,220	42	1,890	2,580	1,140
13	1,010	3,460	2,990	4,320	4,790	40	4,120	5,210	3,640	1,970	3,000	1,180
14	1,210	3,300	4,360	4,720	4,960	3,620	1,940	2,080	3,660	1,990	550	2,070
15	80	2,100	3,580	4,710	5,130	4,440	6,110	39	3,170	2,300	3,090	1,420
16	1,370	1,710	3,700	36	4,790	4,090	30,300	2,440	3,560	2,210	2,780	2,460
17	5,050	1,670	3,240	4,740	4,960	3,680	12,000	2,350	3,620	38	2,850	31
18	4,330	1,700	3,400	4,510	3,800	3,900	7,090	*2,330	3,740	3,400	2,770	24
19	3,790	2,020	3,340	4,220	5,310	1,690	5,220	2,120	39	3,250	3,440	23
20	4,110	2,630	3,630	4,090	5,670	1,570	4,710	2,620	3,660	3,240	3,240	1,460
21	4,020	4,070	3,420	4,360	5,670	4,090	4,450	4,150	3,350	2,980	36	*2,590
22	3,860	3,840	4,450	2,280	4,660	5,490	4,130	248	3,560	3,850	2,820	1,660
23	3,890	3,580	4,620	35	5,310	5,130	5,000	2,680	3,460	41	3,360	2,430
24	672	4,200	4,450	3,670	5,130	5,130	4,130	2,410	3,440	25	3,280	32
25	2,840	4,080	3,940	4,360	5,150	5,130	4,960	2,750	4,000	2,560	3,320	25
26	3,330	4,480	3,570	4,220	5,230	4,280	5,670	2,650	35	4,750	3,310	980
27	*3,640	3,750	3,780	4,400	3,150	2,660	5,490	3,330	3,550	2,820	2,500	690
28	4,200	2,220	3,780	*4,150	5,130	4,450	4,960	4,640	3,430	2,800	40	920
29	4,320	3,590	3,870	2,170	-	5,310	4,790	48	396	2,820	2,940	380
30	2,770	4,440	3,690	32	-----	5,310	5,130	4,050	1,650	38	2,950	1,030
31	28	-----	3,750	3,990	-----	5,490	-----	4,130	-----	25	2,940	-----
Total	66,744	86,074	104,802	102,063	124,464	136,570	169,714	110,485	90,420	76,003	71,131	35,635
Mean	2,153	2,869	3,381	3,292	4,445	4,405	5,657	3,564	3,014	2,452	2,295	1,188
(†)	+209	-673	+701	-625	+1,249	-295	+1,467	-851	-786	-274	-62	-120

Adjusted for change in contents in High Rock Reservoir

Mean	2,562	2,198	4,062	2,667	5,694	4,110	7,124	2,713	2,228	2,178	2,233	1,068
Cfs/m	0.593	0.552	1.03	0.670	1.43	1.03	1.79	0.682	0.560	0.547	0.561	0.268
In.	0.68	0.62	1.18	0.77	1.49	1.19	2.00	0.79	0.62	0.63	0.65	0.30

	Observed				Adjusted			
Calendar year 1954:	Max	51,600	Min	24	Mean	3,567	Mean	3,503
Water year 1954-55:	Max	30,300	Min	21	Mean	3,217	Mean	3,202
							Cfs/m	0.880
							In.	11.93
							Cfs/m	0.805
							In.	10.92

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in High Rock Reservoir; furnished by Carolina Aluminum Co.

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 1955.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 297 ft (by barometer).

Average discharge.--17 years, 318 cfs.

Extremes.--Maximum discharge during year, 10,600 cfs Oct. 16 (gage height, 15.73 ft); minimum daily, 0.9 cfs Oct. 12, 13.

1938-55: 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 1.0 cfs during the water year 1955 above station for water supply. Sewage is discharged into Deep River (Cape Fear River basin).

Revisions (water years).--WSP 892: 1939.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.3	0.7	2.0	187
.4	1.4	2.5	343
.6	4.0	3.0	555
.8	8.2	4.0	1,090
1.0	16	6.0	2,400
1.2	29	10.0	5,320
1.4	56	12.0	7,100
1.6	91	14.0	9,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	47	195	95	195	230	155	107	64	28	87	275
2	3.1	36	134	91	187	212	150	103	56	28	54	150
3	2.3	28	111	99	187	187	160	93	56	24	41	1,590
4	1.7	33	91	103	163	179	157	91	50	18	35	1,740
5	1.3	37	80	95	139	174	139	87	47	26	31	421
6	1.2	82	1,700	87	2,110	165	134	80	44	24	25	230
7	1.2	93	1,390	89	6,490	232	152	78	40	100	19	165
8	1.2	68	390	82	3,830	224	147	70	40	106	19	127
9	1.1	54	247	77	728	174	127	68	36	70	24	99
10	1.0	44	275	75	470	160	113	63	34	46	25	84
11	1.0	44	266	243	754	144	116	59	47	87	33	75
12	.9	39	190	478	1,460	652	139	59	123	778	41	75
13	.9	37	582	250	573	407	160	64	95	326	33	61
14	1.0	39	4,080	184	384	389	2,440	122	50	78	875	56
15	3,800	31	1,980	144	318	412	4,920	125	41	52	4,470	52
16	*8,680	39	564	132	298	369	1,220	86	34	42	1,620	53
17	2,800	39	336	120	269	920	537	70	31	35	1,230	47
18	163	39	288	109	244	615	373	68	30	30	3,780	46
19	97	48	322	120	215	755	301	59	33	38	998	41
20	71	56	256	137	195	810	253	56	297	117	275	41
21	58	77	207	132	184	564	221	56	166	139	171	37
22	46	*101	174	144	174	481	195	364	68	80	120	39
23	41	93	160	404	174	532	176	4,500	48	80	181	33
24	34	84	152	448	*176	350	160	952	173	60	109	34
25	31	97	132	474	559	288	179	253	124	94	80	36
26	31	95	116	456	406	260	244	171	87	58	66	70
27	33	71	111	445	275	227	163	163	61	48	58	86
28	25	66	107	490	247	195	142	118	44	61	52	*50
29	31	342	105	384	-	184	127	173	37	39	52	44
30	47	421	107	285	-----	176	116	93	33	48	48	44
31	52	--	103	230	-----	160	-----	78	-----	80	47	----
Total	16,057.6	2,380	14,921	6,713	21,404	10,807	13,616	8,549	2,089	2,840	14,698	5,901
Mean	518	79.3	481	217	764	349	454	276	69.6	91.6	474	197
Cfsm	1.49	0.229	1.59	0.625	2.20	1.01	1.31	0.795	0.201	0.264	1.37	0.568
In.	1.72	0.26	1.60	0.72	2.29	1.16	1.46	0.92	0.22	0.30	1.58	0.63

Calendar year 1954: Max 8,680 Min 0.9 Mean 299 Cfsm 0.862 In. 11.70
 Water year 1954-55: Max 8,690 Min 0.9 Mean 329 Cfsm 0.948 In. 12.86

Peak discharge (base, 4,600 cfs).--Oct. 16 (7 p.m.), 10,600 cfs (15.73 ft); Feb. 6 (10 p.m.), 7,570 cfs (12.51 ft); Apr. 15 (1 p.m.), 5,400 cfs (10.14 ft); May 23 (5 a.m.), 5,070 cfs (9.70 ft); Aug. 15 (6 p.m.), 4,910 cfs (9.47 ft).

* Discharge measurement made on this day.

Big Bear Creek near Richfield, N. C.

Location.--Lat 35°20', long 80°20', 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 1955.

Gage.--Water-stage recorder. Altitude of gage is 360 ft (from topographic map).

Extremes.--1954: Maximum discharge during period May to September, 2,200 cfs June 16,

July 16; maximum gage height, 9.01 ft July 16; no flow Sept. 12-30.

1954-55: Maximum discharge during water year, 4,120 cfs Feb. 6 (gage height, 11.90 ft), from rating curve extended above 2,500 cfs by logarithmic plotting; no flow Oct. 1-14.

Remarks.--Records good except those above 1,000 cfs which are fair, and those prior to Oct. 1, 1954, which are poor.

Discharge, in cubic feet per second, 1954

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	-	2.3	1.4	1.7	0.7	16	-	309	474	.5	0
2	-	2.5	1.4	3.1	.5	17	-	555	10	.4	0
3	-	2.3	1.3	1.4	.4	18	-	41	5.3	.2	0
4	-	2.2	1.3	1.2	.4	19	-	13	3.6	*.1	0
5	-	1.8	1.3	.8	.3	20	-	8.8	2.9	.3	0
6	-	1.7	1.2	.7	.2	21	-	6.3	28	1.8	0
7	-	1.6	1.1	.5	.2	22	-	5.3	14	.4	0
8	-	1.6	1.0	.4	.1	23	-	4.7	8.3	.2	*0
9	-	*3.7	1.2	.4	.9	24	-	3.9	3.4	.2	*0
10	-	6.3	2.3	.4	.2	25	-	3.1	2.3	.2	0
11	-	4.4	1.3	.3	.1	26	-	2.7	2.0	.1	0
12	-	3.1	1.1	.5	0	27	2.9	2.3	*1.7	.1	0
13	-	2.3	.8	.6	0	28	3.1	2.0	1.4	.85	0
14	-	2.0	.8	.5	0	29	3.1	1.7	1.1	5.5	0
15	-	12	54	.5	*0	30	2.9	1.7	1.0	1.7	0
						31	2.5	-	2.2	*1.1	-
Total.....							-	1,010.3	632.7	110.8	4.0
Mean.....							-	33.7	20.4	3.57	0.13
Cubic feet per second per square mile							-	0.599	0.362	0.063	0.0023
Runoff in inches.....							-	0.67	0.42	0.07	0.003

Peak discharge (base, 1,600 cfs).--June 16 (10:30 p.m.) 2,200 cfs (9.00 ft); July 16 (2:30 a.m.) 2,200 cfs (9.01 ft).

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.5	22	11	30	23	15	6.7	2.2	0.6	8.8	43
2	0	2.2	16	12	33	21	14	6.0	1.7	.5	5.0	18
3	0	1.8	13	11	27	18	16	5.3	1.6	.4	3.4	12
4	0	1.6	10	11	21	19	*15	5.0	1.4	4.5	2.3	8.3
5	0	3.1	12	10	19	18	12	4.7	1.2	*1.1	1.8	5.6
6	*0	6.0	525	9.7	1,580	19	15	4.1	1.1	.7	1.3	4.1
7	0	5.6	94	*9.8	*704	25	16	3.6	.9	.5	1.2	5.1
8	0	4.4	50	*7.5	*184	18	12	3.4	.8	1.2	1.4	2.2
9	0	3.4	50	7.1	96	15	10	2.9	.9	.8	1.2	1.7
10	0	2.5	52	7.9	66	13	9.2	2.5	.9	6.4	1.1	1.4
11	0	2.3	34	127	325	14	13	2.5	30	100	.8	1.3
12	0	2.2	27	*56	172	85	30	2.3	6.3	118	.8	1.2
13	*0	2.0	608	36	82	128	66	3.4	2.7	*101	.8	1.0
14	0	1.8	520	24	66	182	*1,940	4.7	1.8	12	12	.9
15	1,040	1.8	150	21	59	90	*344	4.7	1.4	6.3	*22	.9
16	50	1.8	72	18	48	82	133	3.9	1.2	3.6	3.6	.8
17	*13	2.0	51	15	44	90	71	3.1	1.0	2.3	98	.7
18	9.7	2.3	70	13	*36	138	51	2.5	.9	1.6	102	.7
19	8.3	4.7	53	24	30	186	39	2.2	.9	429	31	.7
20	6.7	16	39	37	27	156	30	1.8	.9	497	13	.7
21	5.3	13	30	44	24	91	25	2.5	.8	53	7.1	.6
22	*3.1	*8.8	25	92	23	85	21	306	.7	16	5.0	.5
23	2.2	7.1	22	138	23	51	18	564	.8	9.0	3.9	.5
24	1.7	13	21	121	*27	40	16	*40	1.3	300	4.1	2.2
25	1.6	12	17	116	44	34	15	19	1.8	113	2.7	4.4
26	1.3	8.3	15	*99	30	32	13	11	2.7	27	2.2	*5.0
27	1.2	6.7	14	93	26	24	11	7.5	1.3	16	1.7	1.8
28	1.1	20	14	85	25	21	9.7	5.6	1.0	10	1.6	1.1
29	4.7	132	14	58	-	20	8.8	4.7	.8	31	1.2	.9
30	4.7	37	14	43	-	18	7.5	3.6	.7	41	1.2	39
31	3.4	-	12	33	-	16	-	2.7	-	21	1.1	-
Total	1,158.0	328.1	2,668	1,389.0	3,871	1,772	2,998.2	1,041.9	71.7	1,926.5	343.3	164.3
Mean	37.4	10.9	86.0	44.8	138	57.2	99.9	33.6	2.39	62.1	11.1	5.48
Cfsm	0.684	0.194	1.53	0.796	2.45	1.02	1.77	0.597	0.042	1.10	0.197	0.097
In.	0.76	0.22	1.76	0.92	2.56	1.17	1.98	0.69	0.05	1.27	0.23	0.11

Calendar year 1954: Max - Min - Mean - Cfsm - In. -
 Water year 1954-55: Max 1,940 Min 0 Mean 48.6 Cfsm 0.863 In. 11.72

Peak discharge (base, 1,600 cfs).--Oct. 15 (1 p.m.) 2,690 cfs (10.22 ft); Dec. 13 (4 p.m.) 1,770 cfs (8.11 ft); Feb. 6 (7 p.m.) 4,120 cfs (11.90 ft); Apr. 14 (8 a.m.) 3,590 cfs (11.20 ft); May 23 (1 a.m.) 2,520 cfs (9.58 ft); July 19 (11 p.m.) 3,300 cfs (10.82 ft); July 24 (9 p.m.) 2,200 cfs (9.04 ft).

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

Rocky River near Norwood, N. C.

Location.--[at 35°09'00", long 80°10'30", on left bank 1,000 ft downstream from Lanes Creek, 1½ 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 1955.

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.--26 years, 1,251 cfs.

Extremes.--Maximum discharge during year, 38,500 cfs Feb. 7 (gage height, 24.20 ft); minimum, 17 cfs Oct. 8 (gage height, 0.00 ft).

1929-55: Maximum discharge, 155,000 cfs Sept. 18, 1945 (gage height, 46.37 ft, from floodmark), from rating curve extended above 70,000 cfs on basis of slope-area determination of peak flow; minimum, that of Oct. 8, 1954.

Flood in August 1908 reached a stage of 35 ft, from information by local residents.

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

Revisions (water years).--WSP 822: Drainage area. WSP 852: 1937. WSP 1052: 1936(M).

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used July 15-19)

0.0	17	3.0	1,820
.1	28	5.0	4,100
.2	42	9.0	9,300
.5	107	13.0	15,600
1.0	261	18.0	25,000
1.5	500	23.0	35,700
2.0	810		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	120	511	326	680	550	390	303	158	88	326	616
2	31	97	344	312	648	522	376	269	150	78	220	1,060
3	31	88	278	308	641	472	395	253	145	72	197	842
4	32	88	231	344	567	456	728	242	135	65	860	506
5	32	105	216	326	484	456	542	231	124	184	196	316
6	28	124	4,880	303	8,500	462	478	216	114	290	145	227
7	21	142	3,810	295	31,800	719	2,940	199	107	135	117	196
8	19	140	1,250	269	14,200	745	1,680	180	102	85	317	153
9	27	117	758	250	3,710	550	700	164	105	a76	584	137
10	27	105	758	234	1,940	456	511	150	105	a150	348	120
11	29	102	700	925	4,010	420	445	148	140	a2,000	196	107
12	31	100	511	2,090	7,120	661	615	150	426	a5,500	186	95
13	*27	97	1,920	1,040	2,590	3,260	876	196	225	a2,500	137	83
14	22	97	11,900	712	1,480	4,040	24,400	559	155	*a1,150	6,600	76
15	9,800	95	6,450	544	1,270	3,220	27,300	669	122	644	4,360	78
16	9,800	90	2,180	472	1,100	1,880	8,730	450	112	326	2,000	76
17	1,310	90	1,140	420	988	1,640	2,270	330	105	199	1,360	72
18	430	102	950	372	898	1,540	1,420	250	100	137	2,030	72
19	253	127	1,180	1,440	771	1,700	1,120	246	97	117	706	67
20	192	153	890	2,870	693	2,180	914	203	95	4,670	372	56
21	155	242	680	2,060	622	1,580	784	170	122	2,620	234	51
22	137	231	561	1,700	579	1,270	680	194	132	751	177	49
23	122	*167	489	2,980	567	1,190	573	5,310	120	505	435	51
24	110	170	435	2,360	555	898	620	3,170	107	282	*594	51
25	97	183	400	2,760	693	745	874	922	338	992	174	80
26	88	177	357	2,240	771	680	700	528	220	530	137	287
27	81	155	321	1,700	634	609	511	390	167	316	112	150
28	83	145	312	1,500	579	528	425	632	120	209	100	105
29	95	836	312	1,300	-	467	376	397	100	324	90	90
30	137	962	316	1,010	-----	445	334	223	90	447	90	78
31	145	--	357	790	-----	420	-----	180	-----	372	190	--
Total	23,419	5,447	45,377	34,252	68,690	34,761	82,707	17,524	4,358	26,814	23,590	5,947
Mean	755	182	1,464	1,105	3,175	1,121	2,757	565	145	865	755	198
Cfsm	0.551	0.133	1.07	0.807	2.32	0.818	2.01	0.412	0.106	0.631	0.551	0.145
In.	0.64	0.15	1.23	0.93	2.41	0.94	2.25	0.48	0.12	0.73	0.63	0.16
Calendar year 1954: Max			35,700	Min	19	Mean	1,233	Cfsm	0.900	In.	12.23	
Water year 1954-55: Max			31,800	Min	19	Mean	1,076	Cfsm	0.785	In.	10.67	

Peak discharge (base, 16,000 cfs).--Oct. 15 (8 p.m.) 22,400 cfs (16.70 ft); Feb. 7 (4:30 a.m.) 38,500 cfs (24.20 ft); Apr. 14 (7 p.m.) 38,200 cfs (24.10 ft); Aug. 14 (8 p.m.) 20,800 cfs (15.88 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.

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 1955.

Gage.--Water-stage recorder and sharp-crested weir. Altitude of gage is 216 ft (by barometer).

Average discharge.--18 years, 81.4 cfs.

Extremes.--Maximum discharge during year, 2,240 cfs Apr. 15 (gage height, 11.03 ft); no flow for several days in October, November, June, and July.
1937-55: 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.

Remarks.--Records good except those below 5 cfs, which are fair, and those for periods of no gage-height record, which are poor.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.8	0	2.3	78
.9	.42	2.6	121
1.0	1.14	3.0	168
1.1	2.0	4.0	268
1.3	4.2	6.0	470
1.5	7.2	8.0	741
1.7	14	10.0	1,470
2.0	37	11.0	2,240

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	a0.08	0.07	3.5	32	17	8.6	6.5	1.83	0	10	8.7
2	0	a.07	.04	5.6	27	15	8.0	5.4	1.47	0	6.5	234
3	0	a.06	.04	9.4	24	13	46	5.0	1.22	0	3.8	350
4	0	a.05	.01	8.8	19	13	92	4.3	.83	0	3.0	297
5	0	a.3	.18	11	17	13	*128	3.7	.76	0	2.7	157
6	0	a.2	28	9.9	138	14	102	3.2	.55	0	1.38	39
7	0	a.1	31	8.6	508	25	265	2.6	.36	*0	.83	20
8	0	a.07	32	7.2	*437	25	426	2.3	.26	0	.62	13
9	0	a.04	32	6.3	536	26	608	1.74	.16	.01	.36	8.6
10	0	a.04	20	5.8	412	20	414	1.47	.16	11	.31	6.3
11	0	.04	14	*88	243	17	154	1.38	.31	46	.26	4.6
12	0	.04	9.6	87	238	16	70	1.3	.26	96	.26	3.6
13	*0	.04	14	90	183	24	82	4.7	.16	267	.31	2.7
14	0	.04	154	68	157	214	925	39	.16	23	55	2.1
15	146	.07	168	a35	90	193	2,040	77	.11	21	447	1.65
16	79	.07	157	a22	64	168	1,890	15	.07	15	179	1.22
17	13	.11	154	a16	52	141	815	8.3	.04	7.7	32	1.06
18	33	.11	47	13	43	70	358	7.7	.04	4.2	47	.83
19	25	.07	29	184	36	48	120	4.4	2.5	2.5	19	.62
20	12	.07	19	288	30	42	60	2.8	1.19	13	11	.55
21	6.7	.07	14	a250	25	36	44	2.0	.16	129	6.8	.48
22	4.4	.04	11	a380	22	34	32	2.0	.07	31	4.6	.42
23	2.7	*.04	8.8	a320	20	29	24	4.4	.21	13	7.1	.42
24	1.83	.01	7.5	a270	19	24	19	4.6	.48	6.8	3.8	.42
25	1.22	.01	6.5	*238	21	19	17	2.7	.11	4.4	2.8	.42
26	.76	.01	5.6	198	20	17	13	1.74	.04	3.1	2.3	.76
27	.42	0	5.1	168	19	14	11.7	1.83	0	1.83	1.92	.82
28	.31	.04	4.7	129	18	12	9.6	1.30	0	15	1.56	.42
29	.31	.21	4.3	84	-	11	8.6	1.06	0	84	1.06	.31
30	.16	.11	3.9	57	-----	9.6	7.2	5.2	0	60	.69	.26
31	.11	-----	3.6	42	-----	8.8	-----	3.6	-----	20	.98	-----
Total	326.92	2.21	983.94	3,101.1	3,450	1,328.4	8,596.0	228.22	13.51	878.54	853.94	1,157.06
Mean	10.5	0.074	31.7	100	123	42.9	287	7.36	0.450	28.3	27.5	36.6
Cfsm	0.095	0.00067	0.288	0.909	1.12	0.390	2.61	0.087	0.0041	0.257	0.250	0.351
In.	0.11	0.0007	0.33	1.05	1.17	0.45	2.91	0.08	0.005	0.30	0.29	0.39

Calendar year 1954: Max 1,870 Min 0 Mean 75.0 Cfsm 0.682 In. 9.24

Water year 1954-55: Max 2,040 Min 0 Mean 57.3 Cfsm 0.521 In. 7.09

Peak discharge (base, 810 cfs).--Apr. 15 (9 p.m.) 2,240 cfs (11.03 ft).

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

a No gage-height record; discharge estimated on basis of weather records and records for Little Sugar Creek near Charlotte.

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 Railroad 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 1955.

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, 10,400 cfs Oct. 15 (gage height, 16.46 ft), from rating curve extended above 6,500 cfs by logarithmic plotting; minimum, 0.3 cfs Oct. 6, 9-14.

1954-55: Maximum discharge, that of Oct. 15, 1954; minimum, that of Oct. 6, 9-14, 1954.

Flood in September 1945 reached a stage of about 20 ft, from information by local resident.

Remarks--Records fair.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 8-11)

Oct. 1-15				Oct. 16 to Sept. 30			
0.7	0.1	1.4	27	1.2	12	4.0	670
.8	.8	1.7	59	1.4	23	5.0	1,070
.9	3.2	2.0	112	1.7	51	7.0	2,090
1.0	6.1	3.0	340	2.0	96	9.0	3,400
1.2	14			3.0	340	10.0	4,200

Note.--Same as following table above 3.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	23	41	34	58	66	58	44	25	19	79	488
2	1.6		32	36	59	63	58	45	23	16	46	216
3	.9	20	28	36	66	58	72	41	22	16	35	2,290
4	.6	21	28	35	55	59	63	41	21	16	29	834
5	.4	41	29	35	48	61	55	40	21	14	25	280
6	.3	51	804	34	1,310	64	*60	39	21	12	23	96
7	.4	34	197	33	*2,590	81	63	37	20	12	21	76
8	.4	22	*84	31	*316	68	58	36	19	14	21	63
9	.3	18	63	31	150	56	51	35	19	25	20	54
10	.3	16	68	33	106	52	50	33	19	132	19	49
11	.3	*15	64	90	823	52	51	32	21	412	19	49
12	*.3	15	48	*100	483	524	59	33	25	663	37	47
13	.3	15	63	56	154	248	63	37	25	*663	27	40
14	.3	15	564	42	107	245	*1,900	124	21	79	209	38
15	*4.140	15	183	39	96	150	607	88	18	47	755	37
16	*3,030	15	91	38	88	141	194	46	16	36	86	36
17	*74	16	64	36	82	358	119	39	16	29	602	34
18	38	16	64	36	78	182	98	36	14	26	1,090	33
19	29	19	79	43	70	255	86	34	16	69	134	33
20	22	21	63	47	66	248	78	32	167	132	72	35
21	20	22	50	46	63	141	72	31	50	91	50	31
22	18	*22	44	58	61	119	67	82	28	40	40	29
23	18	21	42	136	61	102	63	422	41	42	42	29
24	16	22	41	119	64	86	60	98	59	93	*43	28
25	16	23	39	115	136	79	58	*52	40	74	36	32
26	14	23	36	117	89	79	58	41	117	36	31	56
27	14	23	36	128	72	72	55	35	38	31	28	46
28	13	23	36	166	68	66	51	34	29	29	26	36
29	25	133	36	115	-	64	50	69	22	62	25	34
30	25	81	36	81	-----	61	48	37	20	145	25	33
31	26	--	35	67	-----	59	-----	30	-----	145	36	---
Total	7,546.9	823	3,086	2,013	7,419	3,959	4,425	1,821	993	3,220	3,721	5,282
Mean	243	27.4	99.5	64.9	265	128	148	58.7	33.1	104	120	176
Cfsm	2.49	0.281	1.02	0.665	2.72	1.31	1.52	0.601	0.339	1.07	1.23	1.80
In.	2.88	0.31	1.18	0.77	2.83	1.51	1.69	0.69	0.38	1.23	1.42	2.01

Calendar year 1954: Max - Min - Mean - Cfsm - In. -
Water year 1954-55: Max 4,140 Min 0.3 Mean 121 Cfsm 1.24 In. 16.90

Peak discharge (base, 2,000 cfs).--Oct. 15 (11:30 p.m.) 10,400 cfs (16.46 ft); Feb. 6 (12 p.m.) 4,920 cfs (10.93 ft); Feb. 11 (7 p.m.) 2,090 cfs (7.03 ft); Apr. 14 (3 p.m.) 3,560 cfs (9.24 ft); July 12 (12 p.m.) 2,720 cfs (8.04 ft); Aug. 18 (3 p.m.) 2,330 cfs (7.41 ft); Sept. 3 (8 p.m.) 5,000 cfs (10.97 ft).

* Discharge measurement made on this day.

Pee Dee River near Rockingham, N. C.

Location.--Lat 34°56'40", long 79°52'10", on left bank at bridge on U. S. Highway 74, 2.5 miles upstream from Falling Creek, 3.3 miles downstream from Blewett Falls hydro-electric plant, 6 miles west of Rockingham, Richmond County, and at mile 187.

Drainage area.--6,870 sq mi, approximately.

Records available.--August 1906 to January 1912 (gage heights and fragmentary discharge, published as "Yadkin River near Peedee"), September 1927 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 120.68 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). August 1906 to January 1912 staff gage at site 4 miles upstream at different datum. September 1927 to Sept. 30, 1931, water-stage recorder at present site at datum 1.00 ft higher.

Average discharge.--28 years (1927-55), 7,716 cfs (unadjusted).

Extremes.--Maximum discharge during year, 59,900 cfs Apr. 15 (gage height, 11.42 ft); minimum, 122 cfs Oct. 6 (gage height, 0.47 ft); minimum daily, 374 cfs Sept. 18.

1927-55: Maximum discharge, 270,000 cfs Sept. 18, 1945 (gage height, 30.80 ft), from rating curve extended above 194,000 cfs; minimum, 50 cfs Dec. 2, 3, 1951; minimum daily, 58 cfs Dec. 2, 1951.

Maximum stage known, 31.28 ft Aug. 27, 1908 (present datum), from records of State Highway and Public Works Commission (discharge, 276,000 cfs).

Remarks.--Records good except those for periods of no gage-height record, which are poor. Large diurnal fluctuation caused by powerplants above station. Flow largely regulated since 1928 by four reservoirs above station, which have a combined usable capacity for normal operation of 24,259,016,000 cu ft.

Revisions (water years).--WSP 822: Drainage area. WSP 1203: 1928-37.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.0	314	3.5	6,200
1.4	600	4.0	8,300
1.8	1,090	5.0	13,300
2.2	1,890	7.0	25,700
2.6	3,010	9.0	40,000
3.0	4,350	11.0	56,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	567	2,250	6,730	5,120	6,020	6,400	6,250	5,670	4,640	3,670	3,060	5,410
2	630	4,120	4,880	2,210	5,990	6,730	5,540	4,370	3,270	1,930	5,980	5,980
3	738	3,630	4,880	4,090	5,480	6,720	5,900	5,820	4,900	2,130	2,410	5,800
4	843	3,500	4,790	4,060	6,050	6,860	6,880	5,760	4,730	2,460	2,360	7,450
5	570	4,120	3,300	4,620	4,620	7,560	5,520	5,760	2,020	3,550	2,890	3,360
6	471	3,800	6,020	4,340	5,860	6,650	6,100	5,810	3,960	*2,800	2,710	3,170
7	751	1,680	11,600	4,360	49,400	6,380	6,670	5,640	3,400	2,910	1,930	3,660
8	490	1,880	10,100	4,000	43,800	6,570	8,150	5,700	3,590	3,470	2,760	1,580
9	616	2,500	5,360	1,450	21,000	6,550	6,970	5,710	3,400	3,170	2,070	767
10	637	3,690	4,790	5,060	9,900	6,550	2,090	5,460	3,520	3,790	1,810	788
11	583	3,570	5,350	5,650	9,650	6,610	5,780	5,530	3,650	4,240	2,120	687
12	677	2,900	4,240	5,940	18,400	7,470	6,160	5,860	2,700	4,610	3,960	2,020
13	582	3,200	6,120	8,850	15,900	7,160	5,710	6,340	3,020	11,200	1,650	1,960
14	559	652	13,100	6,600	10,100	8,320	21,300	4,830	3,670	8,980	5,910	2,430
15	10,500	2,350	21,600	4,630	8,420	11,100	54,500	1,790	3,500	3,630	17,800	2,040
16	36,200	2,170	11,300	1,840	5,520	10,100	43,400	4,180	3,690	3,600	11,700	2,540
17	22,200	3,000	9,260	4,980	5,860	9,420	28,300	3,090	3,640	1,280	9,880	1,240
18	11,600	2,790	5,480	5,360	7,860	9,420	16,800	3,260	3,930	2,630	13,300	374
19	1,810	2,240	4,950	6,600	7,270	7,920	10,800	2,530	2,060	3,750	10,600	1,760
20	4,470	3,250	6,070	9,420	7,100	6,110	7,550	3,640	3,550	5,260	6,960	2,110
21	4,070	4,620	5,800	9,200	5,880	6,300	6,770	3,840	3,920	7,420	675	1,980
22	3,740	2,700	5,420	6,200	6,450	8,090	7,250	3,360	3,600	6,210	3,740	2,340
23	2,600	4,910	5,180	1,790	6,700	7,590	7,740	6,630	3,830	3,140	4,820	a2,600
24	1,120	4,660	5,260	8,300	6,960	7,310	5,980	12,500	4,290	897	5,270	a1,200
25	2,620	4,050	5,310	9,420	6,340	7,640	5,710	9,360	3,770	3,280	4,030	a400
26	4,050	4,400	4,660	9,200	7,340	7,860	4,910	3,500	2,740	3,990	2,840	a1,000
27	3,720	4,380	5,090	7,430	5,990	5,460	5,160	3,260	2,710	3,680	a1,600	
28	3,520	3,800	4,890	7,950	5,520	4,620	5,450	3,580	3,850	2,920	1,290	a1,900
29	3,930	3,790	4,080	6,700	-	5,090	6,030	3,240	3,710	3,280	3,010	a2,300
30	3,780	6,210	4,820	2,840	-----	6,200	6,450	3,810	4,400	2,730	3,100	2,400
31	787	-----	5,040	6,100	-----	6,240	-----	4,640	-----	1,960	3,820	-----
Total	129,231	100,792	205,470	174,310	304,580	223,000	323,590	155,320	109,110	118,937	144,056	72,846
Mean	4,169	3,360	6,628	5,623	10,870	7,194	10,790	5,010	3,637	3,857	4,647	2,428
(t)	+413	-747	+579	-641	+1,296	-312	+1,537	-888	-959	-72	-80	-326

Observed

Adjusted

Calendar year 1954:	Max	96,500	Min	154	Mean	6,152	Mean	6,092	Cfsm	0.887	In.	12.04
Water year 1954-55:	Max	54,500	Min	374	Mean	5,647	Mean	5,623	Cfsm	0.818	In.	11.10

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in High Rock and Narrows Reservoirs, furnished by Carolina Aluminum Co., and Tillery and Blewett Reservoirs, furnished by Carolina Power and Light Co.

a No gage-height record; discharge estimated on basis of Blewett Falls power records.

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 1955.

Gage.--Water-stage recorder and concrete spillway. Altitude of gage is 90 ft (from Corps of Engineers map).

Average discharge.--15 years, 72.6 cfs.

Extremes.--Maximum discharge during year, 235 cfs Oct. 17 (gage height, 1.01 ft); no flow part of each day Apr. 7, 8.

1940-55: 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, and 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 1954-55, except period when gates in dam were open (gage height, in feet, and discharge, in cubic feet per second)

0.04	1.8	0.3	33
.05	2.4	.5	76
.1	6.2	.7	131
.2	17.5	1.0	235

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	22.4	28.6	58	65	34	8	25.4	12.5	8.1	30	17.8
2	5.3	20.2	27.0	75	55	34	7	24	10.8	6.2	27.8	38
3	5.3	19.5	27.0	81	48	34	7	22	9.6	5.3	21.6	70
4	5.3	19.5	25.4	84	48	36	7	22	8.1	4.9	19.5	86
5	5.3	29.5	27.0	84	46	36	*7	20	7.6	5.3	15.6	79
6	4.5	36	47	81	55	36	8	18	7.6	5.8	11.9	64
7	1.8	39	60	64	130	38	5	16	7.6	7.6	10.2	46
8	1.8	*38	64	49	150	38	8.6	14	11.3	7.6	9.1	51
9	2.7	35	66	42	150	38	49	13	10.2	9.1	7.6	23.8
10	3.7	29.5	62	39	150	38	71	12	11.3	14.3	6.6	19.5
11	4.5	27.8	55	48	150	38	79	11	16.8	*18.8	9.1	17.5
12	4.9	27.0	49	53	150	38	71	12	17.5	20.9	12.5	16.2
13	4.9	25.4	46	54	150	38	61	13	15.6	18.8	13.1	16.2
14	5.8	25.4	32	53	150	38	107	15	13.1	21.6	13.7	14.9
15	98	24.6	55	51	*150	40	170	16	10.8	24.6	13.7	13.7
16	170	24.6	54	47	140	40	205	15	9.6	28.6	11.9	12.5
17	220	24.6	54	44	130	40	177	14	7.6	28.6	15.6	11.3
18	202	25.4	50	43	85	40	134	13	6.6	27.0	18.2	10.8
19	131	27.0	46	62	50	40	108	12	7.6	22.4	18.2	15.6
20	92	27.8	41	74	50	40	86	11	19.5	18.2	16.8	18.2
21	55	26.2	40	76	75	24	68	12	27.0	15.6	14.9	18.2
22	35	25.4	39	84	120	9	52	16	38	14.9	13.1	16.8
23	26.2	25.4	38	84	110	9	46	20	32	13.7	17.5	14.5
24	21.6	27.8	37	89	75	9	43	*18.8	30	11.9	19.5	13.1
25	19.5	27.0	36	86	75	10	30	20.2	27.8	10.2	23.1	17.5
26	19.5	27.0	36	84	55	10	31	17.5	23.1	18.2	26.2	37
27	19.5	27.0	36	81	34	9	29.5	15.6	17.5	15.6	26.2	49
28	16.8	26.2	*36	81	34	9	29.5	13.1	13.7	12.5	20.9	54
29	20.9	27.8	37	76	-	9	27.8	13.7	11.9	13.7	*15.6	54
30	22.4	27.8	34	64	-----	8	23.1	15.6	9.6	18.8	14.9	45
31	23.1	-----	39	55	-----	8	-----	13.1	-----	24.6	12.5	-----
Total	1,253.6	815.8	1,324.0	2,046	2,680	868	1,755.5	494.0	451.9	473.4	507.1	940.9
Mean	40.4	27.2	42.7	66.0	95.7	28.0	58.5	15.9	15.1	15.3	16.4	31.4
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 220 Min 0.8 Mean 49.0 Cfsm 0.766 In. 10.39
 Water year 1954-55: Max 220 Min 1.8 Mean 37.3 Cfsm 0.583 In. 7.92

Peak discharge (base, 250 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--No gage-height record May 2-23; discharge estimated on basis of recorded range in stage and weather records. Gates in dam open making spillway partly inoperative as control Feb. 1 to Apr. 7; 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 1955. 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.--16 years, 8,598 cfs.

Extremes.--Maximum discharge during year, 32,200 cfs Apr. 21 (gage height, 22.44 ft); minimum, 826 cfs Oct. 2, 3, 8-11; minimum gage height, 0.88 ft Oct. 9, from graph based on gage readings.

1939-55: 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.9	826	16.0	12,300
1.5	1,100	18.0	15,200
3.0	1,950	20.0	19,900
7.0	4,640	22.0	29,800
12.0	8,460	23.0	36,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	g870	4,010	5,020	5,460	5,920	7,340	6,820	7,900	4,940	4,500	3,520	3,660
2	g870	2,340	6,360	5,760	6,590	7,190	6,960	7,660	5,240	4,500	3,180	4,860
3	g826	2,990	5,990	5,390	6,820	7,420	7,260	7,120	5,240	4,010	3,380	6,960
4	g870	4,150	5,390	4,570	6,740	7,500	7,340	6,960	5,020	3,520	2,990	7,820
5	*g961	4,080	5,240	5,160	6,740	7,660	7,420	6,890	5,090	2,800	3,120	8,700
6	g961	4,290	5,020	5,390	6,590	7,820	7,260	6,820	4,860	3,120	3,180	8,300
7	g915	4,500	5,240	5,620	6,590	7,900	7,340	6,590	3,320	3,520	3,120	6,820
8	g848	4,080	6,350	5,390	12,900	7,820	8,060	6,520	3,940	3,320	3,060	5,690
9	g848	2,920	9,760	5,160	16,400	7,820	9,130	6,660	4,010	3,450	2,730	4,940
10	g870	*2,860	8,580	4,500	18,000	7,740	9,220	6,520	4,010	3,800	2,920	3,450
11	*848	3,450	6,740	3,800	19,600	7,740	7,580	6,290	3,940	3,800	2,730	2,470
12	892	4,080	6,220	5,690	20,700	7,660	6,360	6,140	4,080	4,500	2,600	1,950
13	892	3,940	5,840	6,440	20,700	7,740	7,420	6,290	4,080	*4,940	2,920	1,880
14	915	3,590	5,840	7,740	19,900	8,140	8,860	6,520	3,380	7,040	3,450	2,600
15	1,230	3,590	8,300	8,220	18,600	8,700	13,600	6,890	3,590	8,700	3,350	2,800
16	4,600	2,140	12,700	6,590	16,600	10,300	17,000	5,690	4,010	7,340	8,720	2,990
17	12,900	2,600	13,500	5,320	14,200	11,100	18,800	4,500	3,940	5,540	10,900	2,800
18	15,500	2,990	12,500	4,150	12,100	11,000	22,400	4,860	4,010	4,360	10,500	2,860
19	15,700	3,380	10,200	5,540	11,100	10,700	26,900	4,430	4,080	3,120	10,600	2,280
20	13,400	3,250	8,160	6,590	10,200	10,000	31,600	4,360	4,010	3,520	10,900	1,700
21	10,000	3,060	6,890	8,540	9,580	9,130	31,600	3,940	3,450	4,500	9,940	2,340
22	8,260	4,080	6,740	9,580	8,540	8,220	28,600	4,570	4,080	6,520	6,640	2,990
23	6,220	4,290	6,520	9,130	8,060	8,540	22,800	4,500	4,430	6,820	3,450	2,920
24	5,320	4,010	6,140	7,040	7,980	8,540	18,200	5,540	4,360	5,760	4,500	3,120
25	3,660	5,020	6,060	6,960	7,900	8,300	15,500	8,860	4,640	3,940	5,620	3,120
26	2,660	4,640	5,990	9,130	7,900	8,300	13,400	*9,670	4,640	2,540	5,390	2,400
27	3,450	4,570	5,840	10,000	7,980	8,220	11,300	8,060	4,570	3,800	4,860	1,820
28	4,360	4,720	5,520	9,670	*7,980	7,500	9,780	5,540	3,750	4,150	4,150	2,020
29	4,220	4,860	5,620	9,310	-	6,360	8,700	4,360	4,080	3,520	3,660	2,470
30	4,220	4,150	*5,540	8,620	-	5,920	8,220	4,640	4,430	3,800	*2,660	2,800
31	4,290	-	5,090	7,120	-	6,520	-	4,430	-	3,800	3,380	-
Total	132,376	112,630	220,920	207,580	322,910	254,840	405,410	189,720	127,200	138,550	152,120	111,530
Mean	4,270	3,754	7,126	6,696	11,530	8,221	13,510	6,120	4,240	4,469	4,907	3,718
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 59,500 Min 826 Mean 7,106 Cfsm - In. -
 Water year 1954-55: Max 31,600 Min 720 Mean 6,509 Cfsm - In. -

* Discharge measurement made on this day.

g Computed from once-daily wire-weight-gage readings by U. S. Weather Bureau.

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 1955.

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--13 years, 705 cfs.

Extremes--Maximum discharge during year, 7,720 cfs Apr. 17 (gage height, 15.40 ft); minimum, 125 cfs Oct. 8.

1942-55: 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.

Remarks--Records good.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 10 to Apr. 18, July 10-20)

4.6	125	12.0	1,870
5.0	163	13.0	2,970
6.0	269	14.0	4,520
8.0	581	16.0	8,700
11.0	1,270		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134	245	322	350	476	459	350	343	234	193	527	208
2	134	234	308	521	459	459	350	322	213	163	433	228
3	143	234	308	739	459	443	358	302	198	173	427	306
4	143	223	295	819	459	427	442	288	188	163	358	629
5	134	234	295	*659	443	443	699	282	178	168	350	739
6	134	269	295	510	443	459	545	269	173	173	336	529
7	134	322	350	459	619	476	545	263	168	241	439	365
8	125	308	510	411	949	599	883	251	163	240	380	308
9	134	282	476	395	1,190	679	1,140	240	173	198	288	276
10	134	*269	443	395	1,640	545	1,350	228	173	297	257	251
11	134	269	411	411	2,360	476	1,450	223	178	669	269	228
12	143	245	380	565	1,620	459	768	213	188	949	257	218
13	143	257	336	739	1,040	443	599	218	198	*824	282	218
14	153	245	365	573	1,090	459	773	223	213	881	295	213
15	193	234	580	459	779	510	1,140	245	193	1,140	251	208
16	491	245	861	427	639	739	1,610	269	178	1,350	250	203
17	883	257	622	411	*599	599	6,760	295	168	1,920	427	198
18	971	269	459	411	563	510	5,110	276	168	1,460	322	188
19	634	257	411	459	545	476	2,840	251	163	473	269	183
20	336	282	395	652	510	476	1,740	228	178	350	251	183
21	269	295	365	971	493	493	925	218	397	450	269	188
22	245	282	350	1,140	476	493	639	213	581	575	336	188
23	223	282	350	997	476	459	545	228	443	395	263	183
24	223	295	336	861	476	443	510	335	322	336	251	178
25	213	282	336	861	493	411	459	443	350	282	358	178
26	213	282	322	861	510	395	443	*329	343	257	380	183
27	203	295	322	861	510	380	427	269	302	251	295	228
28	203	282	322	719	476	372	395	245	302	251	245	257
29	213	295	322	619	-	358	372	240	245	228	218	234
30	203	308	322	545	-	358	358	251	213	287	203	213
31	223	-	336	510	-	*358	-	257	-	493	*203	-
Total	7,861	8,078	12,105	19,310	20,792	14,656	34,525	8,257	7,184	15,850	9,749	7,909
Mean	254	269	390	623	743	473	1,151	266	239	511	314	264
Cfsm	0.376	0.399	0.578	0.923	1.10	0.701	1.71	0.394	0.354	0.757	0.465	0.391
In.	0.43	0.45	0.67	1.06	1.14	0.81	1.91	0.45	0.40	0.87	0.54	0.44

Calendar year 1954: Max 5,230 Min 125 Mean 520 Cfsm 0.770 In. 10.46
Water year 1954-55: Max 6,760 Min 125 Mean 456 Cfsm 0.676 In. 9.17

Peak discharge (base, 5,000 cfs).--Apr. 17 (2:30 p.m.), 7,720 cfs (15.40 ft).

* Discharge measurement made on this day.

Note.--Discharge for Dec. 19 to Jan. 1, Jan. 8-11, 16-18 computed from twice-daily wire-weight-gage readings.

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 1955. 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.--26 years, 923 cfs.

Extremes.--Maximum discharge during year, 3,920 cfs Apr. 22 (gage height, 12.80 ft); minimum, 94 cfs Oct. 10.

1929-55: 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, that of 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 5 to Sept. 11)

Oct. 1 to Nov. 25			Nov. 26 to June 27			June 28 to Sept. 30		
1.1	88		1.9	175	6.0	894	1.8	145
1.5	137		2.0	190	8.0	1,490	2.0	170
2.0	205		3.0	340	11.0	2,610	3.0	305
3.0	358		4.0	505	13.0	4,100	4.0	461
5.0	715						5.0	654
							7.0	1,180

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	*212	272	355	1,060	613	401	523	295	*305	427	270
2	100	228	272	401	921	613	401	469	295	270	461	263
3	99	250	288	401	761	595	401	434	295	235	533	403
4	100	242	302	451	685	577	417	417	272	209	572	496
5	100	235	302	505	631	559	417	401	242	196	572	592
6	100	235	302	595	631	541	417	385	220	176	533	654
7	100	228	302	685	741	559	523	362	205	158	461	721
8	96	235	302	741	781	577	631	340	198	147	403	792
9	95	265	332	741	781	577	703	325	186	158	387	842
10	95	295	385	649	844	595	703	310	176	209	411	676
11	96	302	451	577	921	631	761	295	175	222	395	496
12	96	288	523	523	1,040	667	948	272	184	222	354	395
13	98	272	541	505	1,120	685	1,110	280	184	298	305	342
14	100	258	505	487	1,220	631	1,700	370	186	411	291	291
15	174	250	451	505	1,300	577	2,220	385	190	552	291	270
16	220	242	417	595	1,460	541	2,220	348	212	654	298	249
17	212	242	417	667	1,630	523	2,120	318	220	721	298	228
18	250	242	505	649	1,630	559	1,940	340	205	768	270	216
19	342	242	595	613	1,490	631	1,740	355	190	817	291	216
20	422	242	667	595	1,240	703	1,700	348	176	868	395	228
21	525	250	667	595	948	685	2,960	318	175	948	379	222
22	617	265	559	613	781	613	3,920	302	176	1,060	334	209
23	579	280	469	649	722	577	3,420	302	220	1,060	298	196
24	382	288	434	801	667	577	2,650	302	362	723	395	190
25	295	288	417	948	649	559	2,080	310	487	592	496	196
26	265	280	401	1,040	631	541	1,630	325	505	533	461	263
27	242	272	385	1,160	613	505	1,160	385	417	411	427	235
28	235	272	378	1,220	*613	469	772	417	379	342	478	235
29	228	280	370	1,240	-	451	*631	370	349	*305	461	235
30	220	*280	*362	1,180	-----	434	559	318	334	305	372	263
31	212	---	355	*1,120	-----	*417	-----	*302	-----	372	*305	-----
Total	6,795	7,760	12,928	21,806	26,511	17,782	41,255	10,928	7,710	14,247	12,334	10,884
Mean	219	259	417	703	947	574	1,375	353	257	460	398	363
Cfs/m	0.213	0.251	0.405	0.683	0.919	0.557	1.33	0.343	0.250	0.447	0.386	0.352
In.	0.25	0.28	0.47	0.79	0.96	0.64	1.48	0.40	0.28	0.52	0.44	0.39

Calendar year 1954: Max 3,580 Min 95 Mean 582 Cfs/m 0.565 In. 7.67
Water year 1954-55: Max 3,920 Min 95 Mean 523 Cfs/m 0.508 In. 6.90

* Discharge measurement made on this day.

PEE DEE RIVER BASIN

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 1955.

Gage.--Wire-weight 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.--16 years, 480 cfs.

Extremes.--Maximum discharge during year, 3,240 cfs Apr. 17 (gage height, 10.66 ft, from graph based on gage readings), from rating curve extended above 2,800 cfs by velocity-area studies and logarithmic plotting; minimum, 25 cfs Oct. 14 (gage height, 2.98 ft). 1939-55: 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.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 15, Sept. 10)

Oct. 1-15	Oct. 16 to Sept. 10	Sept. 11-30
3.0 26	4.7 96	7.5 415
4.0 75	5.0 114	8.0 630
5.0 134	6.0 177	9.0 1,280
	6.5 220	10.6 3,100
	7.0 292	

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	274	200	a292	605	385	312	415	334	274	210	432
2	50	244	200	a312	580	385	292	358	292	a244	200	470
3	a50	220	200	334	535	385	a312	334	274	a232	232	1,140
4	52	210	200	334	490	385	385	274	274	210	210	al,540
5	52	210	a200	358	470	415	450	258	a274	192	200	1,740
6	40	210	220	358	a490	432	*512	244	274	177	a184	1,850
7	28	a210	232	385	512	450	535	244	244	163	a156	*2,080
8	26	210	258	385	512	470	535	a232	220	250	138	1,850
9	28	*200	292	a358	535	490	580	220	188	329	132	1,740
10	38	200	312	358	605	535	a630	200	150	a197	108	1,600
11	42	210	334	358	655	512	655	192	144	177	102	al,180
12	42	210	a358	358	680	512	680	184	al44	177	96	1,100
13	32	210	358	334	a680	a490	708	184	150	265	142	900
14	28	a220	385	334	708	470	850	a192	150	334	a192	835
15	80	220	385	334	708	512	1,200	192	138	358	210	745
16	150	220	415	a334	*680	605	2,040	192	138	385	200	632
17	a194	220	432	312	630	735	2,960	200	132	a385	205	555
18	266	220	432	312	605	850	3,100	220	132	334	274	507
19	274	220	a450	334	580	850	2,320	244	a138	312	292	463
20	313	220	432	358	a355	790	1,740	a270	156	292	334	580
21	559	a220	432	385	490	708	1,360	a300	185	334	a415	688
22	790	220	415	415	470	680	1,050	a320	232	358	490	775
23	735	210	385	a450	450	655	980	a350	344	312	605	835
24	655	210	385	512	450	655	850	a380	470	a244	735	a775
25	558	a210	a358	558	415	605	708	a410	428	232	1,120	a775
26	512	210	a358	580	415	535	605	a430	a312	220	1,200	775
27	470	200	334	655	a385	450	558	a440	334	232	a980	835
28	415	a200	334	708	385	415	490	a420	358	258	850	865
29	385	200	*312	735	-	385	450	a390	385	258	735	835
30	334	192	292	a708	395	395	450	a370	358	258	580	775
31	a292	292	292	655	-----	334	-----	358	-----	244	432	-----
Total	7,530	6,430	10,192	13,203	15,255	16,465	28,297	9,017	7,352	8,237	11,959	29,972
Mean	243	214	329	426	545	531	943	291	245	266	386	999
Cfsm	0.464	0.408	0.628	0.813	1.04	1.01	1.80	0.555	0.468	0.508	0.737	1.91
In.	0.53	0.46	0.72	0.94	1.08	1.16	2.01	0.84	0.52	0.59	0.85	2.13
Calendar year 1954: Max	1,630	Min	24	Mean	341	Cfsm	0.651	In.	8.84			
Water year 1954-55: Max	3,100	Min	26	Mean	449	Cfsm	0.657	In.	11.63			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for station at Galivants 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 Airline Railroad bridge, and 4 miles northeast of Hoffman, Richmond County.

Drainage area.--178 sq mi.

Records available.--October 1939 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 270 ft (from topographic map).

Average discharge.--16 years, 253 cfs.

Extremes.--Maximum discharge during year, 1,600 cfs Oct. 17 (gage height, 6.92 ft); minimum, 32 cfs Oct. 8 (gage height, 1.40 ft).

1939-55: 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. Records of chemical analyses for the water year 1955 are given in WSP 1400.

Revisions (water years).--WSP 972: 1941(M).

Rating table, water year 1954-55 (gage height in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 10-29)

1.4	32	5.0	302
2.0	68	5.5	460
3.0	125	6.0	709
4.0	187	6.5	1,100
4.6	240	7.0	1,710

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	164	230	176	220	202	155	167	140	66	187	202
2	46	146	198	194	211	194	152	155	105	60	134	292
3	43	146	170	216	206	187	176	149	94	56	96	406
4	40	146	131	211	202	184	202	140	85	59	96	447
5	39	176	128	187	190	180	*184	134	80	*60	88	460
6	36	230	225	180	206	180	170	125	77	71	74	500
7	34	273	313	176	302	202	216	116	72	67	69	426
8	33	282	435	184	439	220	258	108	69	122	72	313
9	36	225	486	173	536	220	230	102	70	184	67	225
10	39	176	439	167	532	190	173	99	72	176	72	194
11	40	158	348	*202	426	173	161	96	77	251	77	184
12	40	149	292	251	348	173	176	99	96	265	119	*170
13	*42	143	211	302	336	187	198	125	85	251	131	158
14	42	140	258	302	336	235	324	264	72	240	99	140
15	161	146	292	265	324	302	692	504	65	246	134	134
16	739	140	336	211	292	336	645	513	62	187	173	125
17	1,340	140	357	194	265	313	752	422	61	113	194	116
18	1,100	143	336	184	251	265	550	240	74	88	376	110
19	585	149	282	206	240	235	406	167	70	77	595	119
20	394	149	251	251	235	235	324	140	113	80	611	173
21	302	152	235	292	225	251	273	122	143	119	435	211
22	235	164	220	302	216	251	240	131	102	110	250	178
23	194	*155	206	292	*211	230	216	215	99	131	*238	128
24	170	152	202	302	211	206	198	*366	140	122	324	119
25	155	161	198	*324	216	187	202	398	155	102	366	116
26	146	155	194	336	225	176	240	238	110	131	324	131
27	137	143	187	324	230	170	282	137	110	96	206	143
28	131	143	184	302	211	164	282	128	96	77	146	128
29	143	187	184	273	-	164	216	128	91	74	128	*119
30	176	225	187	258	-----	161	184	152	77	137	119	116
31	194	-----	180	240	-----	158	-----	194	-----	176	125	-----
Total	6,861	5,058	7,895	7,477	7,842	6,531	8,677	6,074	2,762	3,994	6,125	6,283
Mean	221	169	255	241	260	211	289	196	92.1	129	198	209
Cfs/m	1.24	0.949	1.43	1.35	1.57	1.19	1.62	1.10	0.517	0.725	1.11	1.17
In.	1.43	1.06	1.65	1.56	1.64	1.36	1.81	1.27	0.58	0.83	1.28	1.31

Calendar year 1954: Max 1,340 Min 33 Mean 228 Cfs/m 1.28 In. 17.43

Water year 1954-55: Max 1,340 Min 33 Mean 207 Cfs/m 1.16 In. 15.78

Peak discharge (base, 850 cfs).--Oct. 17 (10 p.m.) 1,600 cfs (6.92 ft); Apr. 16 (1 p.m.) 876 cfs (6.25 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 1955.

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.--26 years, 1,206 cfs.

Extremes.--Maximum discharge during year, 5,170 cfs Sept. 6-11; maximum gage height, 8.56 ft Sept. 6, 7; minimum discharge, 87 cfs Oct. 14 (gage height, -0.03 ft).
1929-55: Maximum discharge, 13,400 cfs Sept. 24, 1945 (gage height, 10.64 ft); minimum, that of Oct. 14, 1954.
Maximum stage known, 11.8 ft in August 1928, from floodmark witnessed by local resident (discharge, 25,000 cfs).

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

Revisions.--WSP 892: Drainage area.

Rating tables, water year 1954-55, except periods when rate of change of stage was used as a factor (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-14				Oct. 15 to Jan. 31				Feb. 1 to Sept. 30			
-0.1	80	0.6	120	4.0	808	1.3	224	6.0	1,450		
0.0	90	1.0	169	5.0	885	2.0	327	7.0	2,500		
.1	100	2.0	308	6.0	1,450	3.0	477	8.0	4,080		
		3.0	448			4.0	640	9.0	6,230		
						5.0	898				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	k630	406	710	*1,300	1,120	998	a1,100	447	380	357	*4,560
2	92	k540	406	740	1,300	1,070	975	a950	455	395	357	4,460
3	92	k488	406	740	1,270	1,040	1,020	a900	492	372	335	4,850
4	92	k428	406	725	1,240	1,040	1,040	a850	492	335	327	4,850
5	95	420	406	725	1,210	1,040	1,020	a800	462	304	355	4,960
6	*98	413	441	725	1,210	1,040	998	a750	432	282	350	5,170
7	97	406	462	710	1,300	1,070	1,020	a750	410	267	355	5,170
8	97	406	*483	710	1,270	1,070	1,040	a700	*380	260	380	5,170
9	94	406	505	710	1,300	*1,100	1,040	a700	342	252	380	*5,170
10	92	399	521	695	1,300	1,120	1,070	a650	320	274	342	5,170
11	91	392	537	710	1,370	1,120	1,100	a650	297	260	335	5,170
12	90	392	546	710	1,370	1,100	1,120	a600	274	252	k403	k4,460
13	89	399	563	710	1,370	1,150	1,150	a600	260	k318	387	k3,920
14	88	406	590	695	1,410	1,120	1,200	a550	245	k422	372	k3,460
15	*130	420	617	682	1,410	1,100	a1,400	a500	231	k506	372	k3,020
16	*k172	427	636	682	1,450	1,100	a1,800	a480	*238	522	380	*k2,700
17	k235	*454	670	670	1,450	1,100	a1,800	a460	245	562	k488	k2,630
18	266	441	725	658	*1,490	1,120	a2,000	a460	260	594	k585	k2,260
19	287	434	765	710	1,490	1,150	a2,400	*455	290	621	566	k2,760
20	*508	454	832	755	1,490	1,210	a2,600	455	297	630	621	k2,500
21	329	420	868	785	1,450	1,210	a2,700	462	267	*630	650	k3,560
22	350	406	885	832	1,410	1,240	a2,800	485	245	612	k764	k4,000
23	371	406	888	905	1,370	1,270	a2,800	604	267	578	k1,010	k4,320
24	k454	399	850	1,040	1,300	1,270	a2,800	621	290	k496	k1,280	4,360
25	k514	399	852	1,120	1,270	1,270	a2,700	692	304	470	k1,710	*4,270
26	k653	392	815	1,180	1,240	1,270	a2,600	753	327	462	k2,530	k3,790
27	k784	399	800	1,210	1,180	1,240	a2,500	753	350	447	k3,400	k3,290
28	868	399	785	1,270	1,150	1,180	a2,100	704	365	462	3,610	k2,930
29	868	399	*785	1,300	-----	1,150	a1,800	630	342	447	4,180	k2,700
30	868	399	755	1,300	-----	1,100	a1,400	603	350	432	4,580	k2,650
31	k732	-----	725	1,300	-----	1,040	-----	k484	-----	395	4,580	-----
Total	9,470	12,711	19,911	26,414	37,370	35,220	50,791	20,151	9,976	13,239	36,291	117,760
Mean	305	424	642	852	1,335	1,136	1,693	650	333	427	1,171	3,925
Cfs/m	0.250	0.348	0.528	0.698	1.09	0.931	1.39	0.533	0.273	0.350	0.960	3.22
In.	0.29	0.39	0.61	0.81	1.14	1.07	1.55	0.61	0.30	0.40	1.11	3.59

Calendar year 1954: Max 3,260 Min 88 Mean 829 Cfs/m 0.680 In. 9.22
Water year 1954-55: Max 5,170 Min 88 Mean 1,067 Cfs/m 0.875 In. 11.87

* 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.

k Computed by using rate of change of stage as a factor.

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 1955.

Gage.--Wire-weight gage read twice daily. Datum of gage is 23.95 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--13 years, 2,786 cfs.

Extremes.--Maximum discharge during year, 13,900 cfs Sept. 11 (gage height, 10.36 ft, from graph based on gage readings); minimum, 155 cfs Oct. 12, 13.
1942-55: Maximum discharge, 26,800 cfs Sept. 23, 1945 (gage height, 13.23 ft, from graph based on gage readings); minimum, that of 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 5 to Dec. 24, Sept. 14-30)

2.4	152	7.0	2,230
2.5	184	8.0	4,050
3.0	350	9.0	7,510
4.0	690	11.0	16,600
6.0	1,390		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	187	1,210	656	1,390	2,830	2,510	2,230	3,590	1,280	860	1,040	2,830
2	181	1,210	656	1,440	2,830	2,370	2,110	3,390	1,240	826	1,040	3,390
3	171	1,210	656	1,440	3,010	2,370	2,110	3,190	1,210	826	1,000	4,310
4	174	1,210	656	1,440	3,010	2,230	1,990	2,830	1,140	860	1,000	5,550
5	178	1,100	656	1,440	3,010	2,230	1,990	2,510	1,070	826	930	6,290
6	178	1,000	690	1,440	3,010	2,230	2,110	2,370	1,040	758	860	7,930
7	178	930	724	1,440	3,190	2,230	2,230	2,110	1,000	690	792	9,270
8	171	860	758	1,440	3,010	2,110	2,370	1,890	965	656	758	10,600
9	171	792	758	1,440	3,010	2,110	2,510	1,720	965	622	690	12,000
10	168	*758	792	1,440	3,010	2,110	2,670	1,570	895	588	690	13,000
11	162	724	826	1,500	3,010	2,230	2,670	1,440	826	622	690	13,400
12	158	724	860	1,500	3,010	2,230	2,830	1,320	758	*622	690	13,000
13	*158	690	895	1,500	3,010	2,230	2,830	1,280	690	622	690	12,000
14	162	690	965	1,500	3,010	2,230	3,390	1,240	656	622	690	11,100
15	384	690	1,000	1,500	3,190	2,230	4,050	1,240	622	656	690	10,200
16	452	690	1,040	1,500	3,190	2,230	4,590	1,180	588	895	690	8,810
17	435	690	1,100	1,440	3,190	2,230	5,210	1,180	554	1,000	758	8,370
18	486	690	1,140	1,440	3,190	2,230	5,550	1,140	554	1,040	860	7,090
19	520	690	1,210	1,500	3,190	2,230	6,290	1,070	588	1,070	930	7,090
20	588	724	1,210	1,500	3,190	2,370	7,090	1,040	656	1,100	965	7,090
21	622	724	1,240	1,570	3,010	2,370	7,930	1,000	656	1,100	1,040	6,690
22	656	724	1,280	1,640	3,010	2,510	8,370	1,000	690	1,140	1,070	6,690
23	690	724	1,320	1,640	3,010	2,510	7,930	1,070	690	1,140	1,100	6,690
24	724	724	1,350	1,890	2,830	2,670	7,090	1,100	690	1,140	1,140	7,090
25	792	690	1,390	1,990	2,830	2,670	6,690	*1,180	690	1,100	1,240	7,510
26	860	690	1,390	1,990	2,830	2,510	5,550	1,180	724	1,070	1,350	8,810
27	965	690	1,440	2,230	2,670	2,510	5,210	1,210	792	1,040	1,440	*9,270
28	1,040	690	1,440	2,370	2,670	2,510	4,590	1,210	860	1,000	1,570	9,270
29	1,000	656	*1,440	2,510	-	2,510	4,310	1,240	895	1,040	1,800	9,270
30	1,140	656	1,390	2,510	-----	2,370	3,810	1,280	895	1,040	*2,110	9,270
31	1,180	---	1,390	2,670	-----	2,370	-----	1,280	-----	1,000	2,510	---
Total	15,031	24,250	32,318	52,240	85,960	72,450	128,300	50,050	24,879	27,571	32,823	253,880
Mean	485	808	1,043	1,655	2,899	2,337	4,277	1,615	829	889	1,059	8,463
Cfsm	0.174	0.290	0.374	0.604	1.07	0.838	1.53	0.579	0.297	0.319	0.380	3.03
In.	0.20	0.32	0.43	0.70	1.11	0.97	1.71	0.67	0.33	0.37	0.44	3.58
Calendar year 1954: Max				7,930	Min 158	Mean 1,675	Cfsm 0.600	In. 8.15				
Water year 1954-55: Max				13,400	Min 158	Mean 2,186	Cfsm 0.784	In. 10.63				

* 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 northwest of Gable, Clarendon County.

Drainage area--401 sq mi.

Records available--June 1951 to September 1955.

Gage--Wire-weight gage read twice daily. Altitude of gage is 95 ft (from topographic map).

Extremes--Maximum discharge during year, 518 cfs Apr. 17, 18; maximum gage height, 3.26 ft Apr. 18, from graph based on gage readings; no flow Oct. 1-17.

1951-55: 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.

Remarks--Records good except those between 15 and 100 cfs, which are fair, and those below 15 cfs, which are poor.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 13

Apr. 14 to Sept. 30

1.2	0	2.5	38	2.1	34
1.3	.9	2.4	59	2.3	70
1.5	3.3	2.6	126	2.6	158
1.7	6.7	2.8	232	3.0	355
1.9	10	3.0	381	3.3	553
2.1	16	3.1	473		
2.2	24				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	*7.1	23	115	333	226	136	222	251	*187	187	117
2	0	6.2	27	150	317	220	136	208	246	140	178	130
3	0	5.8	30	169	294	209	150	174	237	106	178	166
4	0	5.6	32	174	287	209	164	151	204	114	166	204
5	0	6.2	35	*174	273	209	164	140	178	97	154	241
6	0	7.1	51	174	273	203	164	120	166	94	140	256
7	0	7.2	68	174	365	226	169	106	148	87	134	256
8	0	7.4	79	180	381	226	164	97	126	72	123	232
9	0	7.8	88	186	399	215	164	87	114	58	103	213
10	0	8.1	96	191	427	209	169	77	111	58	89	187
11	0	8.5	99	203	464	197	186	70	130	47	92	166
12	0	8.6	103	209	473	197	246	60	144	44	89	162
13	0	9.0	118	203	464	209	273	54	144	60	89	158
14	0	9.2	145	197	455	215	326	80	134	80	89	151
15	0	9.6	155	197	436	209	392	92	114	82	89	140
16	0	10	155	203	418	197	450	94	92	77	84	130
17	0	11	150	191	399	191	518	94	82	80	75	120
18	.6	12	150	191	381	180	518	106	80	77	68	111
19	2.8	12	150	232	365	186	483	114	82	64	60	100
20	4.4	12	145	246	349	203	450	111	82	70	54	92
21	4.6	12	140	266	333	215	450	225	75	94	47	87
22	7.1	12	136	273	317	215	417	293	77	126	40	82
23	9.0	12	126	287	301	203	405	321	77	151	55	75
24	16	14	115	317	280	197	367	262	87	174	103	64
25	19	15	111	357	*273	186	315	241	117	191	137	56
26	*15	15	107	373	260	174	293	222	202	195	134	56
27	13	17	103	381	253	169	267	222	202	187	130	56
28	10	18	103	391	232	164	241	251	202	178	123	56
29	9.7	21	99	365	---	155	*232	272	246	*191	120	54
30	9.1	*22	96	357	---	145	227	298	218	191	120	54
31	8.5	---	92	*349	---	145	---	*262	---	191	117	---
Total	128.8	328.4	3,127	7,465	9,802	6,104	8,636	5,136	4,544	3,563	3,367	3,972
Mean	4.15	10.9	101	241	350	197	288	166	151	115	109	132
Cfsm	0.010	0.027	0.252	0.601	0.873	0.491	0.718	0.414	0.377	0.287	0.272	0.329
In.	0.01	0.03	0.29	0.69	0.91	0.57	0.80	0.48	0.42	0.33	0.31	0.37
Calendar year 1954: Max	680			Min 0		Mean 139		Cfsm 0.347		In. 4.70		
Water year 1954-55: Max	518			Min 0		Mean 154		Cfsm 0.384		In. 5.21		

* 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 1955. 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.--26 years, 758 cfs.

Extremes.--Maximum discharge during year, 3,900 cfs Sept. 9 (gage height, 10.79 ft); minimum, 2 cfs Oct. 7, 8.
1929-55: 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.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 15-22, Dec. 7 to Apr. 14, Sept. 23-30)

Oct. 1-14

Oct. 15 to Sept. 30

0.0	2	0.4	10	3.0	175	8.0	1,170
.1	4	.8	21	4.0	288	9.0	1,720
		1.4	48	6.0	618	10.0	2,870
		2.0	87	7.0	850	10.7	3,730

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	13	11	83	660	486	288	578	578	522	195	504
2	4	12	11	101	638	469	282	504	540	522	239	378
3	3	*11	11	119	618	452	282	418	469	452	308	435
4	3	11	11	137	598	435	282	358	410	371	378	631
5	3	11	12	146	558	435	269	308	349	321	410	892
6	3	11	14	*146	558	426	257	263	294	282	452	1,260
7	2	11	14	146	660	452	245	222	239	245	522	1,690
8	2	11	14	146	774	486	234	190	195	212	558	2,540
9	3	11	14	150	*876	486	222	160	155	200	540	3,730
10	3	11	14	155	904	469	212	*137	128	294	469	3,560
11	3	10	14	160	904	452	217	115	107	251	386	2,860
12	3	10	13	170	876	435	282	100	93	228	308	2,230
13	3	10	15	180	850	452	368	93	107	294	239	1,870
14	3	10	20	190	798	486	766	128	132	402	190	1,650
15	34	10	25	206	774	540	1,590	165	124	469	155	1,470
16	83	10	27	217	726	540	2,640	155	100	504	128	1,260
17	107	10	31	228	704	522	3,240	132	81	486	111	1,090
18	77	10	36	245	704	504	3,400	111	70	394	94	904
19	40	10	40	275	682	486	2,940	95	62	301	78	774
20	27	10	42	321	682	540	2,550	86	60	288	71	638
21	21	10	*48	356	660	598	2,130	81	61	378	76	540
22	19	10	60	386	638	598	1,790	118	59	364	66	435
23	17	10	71	402	618	558	1,590	274	66	342	64	364
24	15	11	79	452	598	522	1,420	378	111	321	90	294
25	14	10	81	540	578	486	1,260	455	137	245	*142	245
26	13	10	81	638	540	452	1,130	486	150	222	222	212
27	12	10	81	682	522	410	1,020	558	190	175	351	185
28	11	11	81	704	504	378	904	618	251	146	540	165
29	14	11	82	704	---	349	798	658	*328	137	682	155
30	15	11	83	682	---	*321	682	618	435	155	726	142
31	14	---	81	660	---	301	---	598	---	165	660	---
Total	575	317	1,217	9,727	19,202	14,526	53,290	9,118	6,081	9,688	9,450	33,103
Mean	18.5	10.6	39.3	314	686	469	1,110	294	203	313	305	1,103
Cfs/m	0.015	0.0084	0.031	0.249	0.544	0.372	0.881	0.233	0.161	0.248	0.242	0.875
In.	0.02	0.009	0.034	0.29	0.57	0.43	0.98	0.27	0.18	0.29	0.28	0.98
Calendar year 1954: Max	1,860			Min 2		Mean 283		Cfs/m 0.225	In. 3.07			
Water year 1954-55: Max	3,730			Min 2		Mean 401		Cfs/m 0.318	In. 4.34			

* Discharge measurement made on this day.

Catawba River near Marion, N. C.

Location--Lat 35°42'20", long 82°02'10", on right bank 15 ft downstream from bridge on U. S. Highway 221, 0.2 mile downstream from Tom Creek, and 2.2 miles northwest of Marion, McDowell County. Records include flow of small tributary which enters above control.

Drainage area--171 sq mi (including area of small tributary which enters above control).

Records available--October 1941 to September 1955.

Gage--Water-stage recorder. Datum of gage is 1,208 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge--14 years, 307 cfs.

Extremes--Maximum discharge during year, 6,200 cfs Apr. 14 (gage height, 9.89 ft); minimum, 28 cfs Oct. 1, 5 (gage height, 0.50 ft).
1941-55: Maximum discharge, 19,700 cfs Aug. 28, 1949 (gage height, 15.02 ft), from rating curve extended above 10,000 cfs on basis of logarithmic plotting and contracted-opening determinations at gage heights 15.02 and 19.34 ft; minimum, 28 cfs Sept. 30, Oct. 1, 5, 1954 (gage height, 0.50 ft).
Maximum stage known, 19.34 ft Aug. 13, 1940 (discharge, 71,400 cfs, from rating curve extended above 10,000 cfs as explained above).

Remarks--Records good. Considerable diurnal fluctuation and slight regulation for short periods at low flow caused by powerplant above station.

Revisions (water years)--WSP 1032: 1942, 1943(P).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.5	28	2.0	395
.6	35	2.5	610
.7	46	3.0	870
.9	72	4.0	1,510
1.2	129	5.0	2,220
1.5	207	7.0	3,680

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	54	88	248	74	198	210	187	173	138	570	187
2	56	51	65	155	*80	190	181	173	181	134	480	315
3	63	44	58	119	119	184	181	170	165	107	343	231
4	33	43	57	123	131	157	152	152	165	115	288	221
5	29	56	65	145	94	136	134	138	152	190	252	173
6	29	65	234	107	869	125	155	152	129	147	241	*187
7	46	66	131	90	891	109	190	152	239	121	266	170
8	52	45	85	86	427	111	157	136	201	192	241	145
9	31	*44	96	86	319	127	147	119	175	234	1,850	155
10	*32	44	86	103	270	123	138	134	160	150	871	157
11	32	44	69	157	224	111	393	134	195	371	806	152
12	31	51	68	95	162	150	466	115	170	464	516	147
13	31	69	94	92	150	190	1,680	192	*152	1,380	391	129
14	31	47	134	115	140	201	3,400	252	121	790	375	115
15	33	46	100	81	127	*192	1,050	672	111	492	905	119
16	40	84	72	79	123	187	680	500	125	371	687	143
17	37	129	69	76	152	195	520	415	121	300	471	119
18	48	113	109	88	165	221	440	319	101	227	383	100
19	53	145	119	101	134	319	383	275	460	270	351	121
20	35	119	77	85	109	359	343	238	359	555	335	109
21	34	98	69	98	103	307	307	252	234	407	335	90
22	34	100	*68	113	125	941	281	1,200	204	307	273	113
23	34	66	79	88	227	565	266	842	274	270	292	119
24	37	79	81	81	198	419	263	542	227	302	270	98
25	47	86	65	101	201	355	285	435	157	295	227	181
26	53	58	62	109	184	339	241	351	150	292	201	152
27	37	56	90	81	152	300	*224	296	160	*238	195	105
28	38	62	113	85	184	270	214	255	145	195	192	129
29	43	127	513	103	-	259	187	248	121	234	184	147
30	43	121	728	115	-----	234	173	221	127	266	175	125
31	40	-----	319	72	-----	224	-----	210	-----	427	178	-----
Total	1,211	2,212	4,063	3,278	6,144	7,798	13,421	9,473	5,454	9,981	12,924	4,450
Mean	39.1	73.7	131	106	219	252	447	306	182	322	417	143
Cfs/m	0.229	0.431	0.766	0.820	1.28	1.47	2.61	1.79	1.06	1.88	2.44	0.865
In.	0.26	0.48	0.88	0.71	1.34	1.70	2.92	2.06	1.19	2.17	2.81	0.97

Calendar year 1954: Max 3,950 Min 29 Mean 187 Cfs/m 1.09 In. 14.85
Water year 1954-55: Max 3,400 Min 29 Mean 220 Cfs/m 1.29 In. 17.49

Peak discharge (base, 3,400 cfs)--Apr. 14 (4 a.m.) 6,200 cfs (9.89 ft); Aug. 9 (12 m.) 3,530 cfs (6.80 ft).

* 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 December 1908 (fragmentary, published as "at Ponta Flora"), June 1922 to September 1955.

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 December 1908 staff gage 1.2 miles downstream at different datum. June 7, 1922, to July 5, 1937, staff gage at present site and datum.

Average discharge.--33 years (1922-55), 139 cfs.

Extremes.--Maximum discharge during year, 5,680 cfs Apr. 14 (gage height, 6.65 ft); minimum, 15 cfs Oct. 8-15.

1907-8, 1922-55: 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, 3 cfs Jan. 2, 1940, 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.

Remarks.--Records fair. Occasional slight diurnal fluctuation caused by small mill above station.

Revisions (water years).--WSP 892: 1928-29, 1935, 1937.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.3	13	2.5	260
1.5	26	3.0	550
1.7	46	4.0	1,490
1.9	74	5.0	2,740
2.2	140	6.0	4,300

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	21	48	183	40	138	108	97	78	50	191	87
2	33	22	45	135	*54	125	102	91	74	47	132	72
3	31	21	39	111	64	111	100	89	69	44	164	72
4	22	21	33	93	48	104	89	85	66	48	113	69
5	18	25	38	85	53	100	87	82	63	68	91	66
6												
7	17	29	69	80	444	95	111	78	61	84	108	*61
8	16	25	54	74	731	111	138	74	66	66	100	60
9	15	23	38	66	328	89	108	72	87	104	122	56
10	*15	*22	56	61	215	84	97	69	80	87	300	53
11	15	22	64	58	161	80	89	66	72	66	179	53
12	15	22	45	61	150	80	185	64	76	71	128	51
13	15	22	54	57	135	100	494	64	93	196	158	50
14	15	21	51	56	120	132	621	84	*76	203	115	47
15	15	21	61	46	110	108	2,910	111	63	154	100	46
16	15	20	66	57	100	*102	783	168	60	118	257	45
17												
18	25	24	56	52	93	138	454	120	57	104	394	43
19	22	30	53	46	91	246	333	104	54	91	207	42
20	20	60	58	46	85	298	265	89	53	80	154	39
21	19	135	69	48	78	454	224	80	84	135	130	38
22	18	238	56	43	72	441	187	72	150	100	115	37
23												
24	18	104	44	39	71	318	168	71	113	89	158	35
25	17	63	*40	56	72	763	168	203	78	78	118	34
26	17	52	*43	44	278	474	140	279	68	69	187	34
27	17	47	51	44	207	318	140	199	63	66	120	34
28	17	44	40	35	175	251	168	154	57	69	100	51
29												
30	17	40	36	40	140	233	135	130	57	63	89	63
31	17	36	47	50	132	183	*130	111	54	*72	84	47
1	17	35	52	32	164	150	120	102	51	64	76	43
2	20	56	*530	46	-	140	111	93	50	89	71	42
3	25	63	1,070	38	-----	125	102	91	50	97	76	43
4	23	-----	308	33	-----	118	-----	87	-----	100	78	-----
Total	585	1,364	3,312	1,915	4,411	6,209	8,867	3,279	2,123	2,772	4,415	1,513
Mean	18.9	45.5	107	61.8	158	200	296	106	70.8	89.4	142	50.4
Cfs/m	0.291	0.700	1.65	0.951	2.43	3.08	4.55	1.63	1.09	1.38	2.18	0.775
In.	0.33	0.78	1.89	1.10	2.52	3.55	5.07	1.88	1.21	1.59	2.53	0.87
Calendar year 1954: Max			1,980		Min 13		Mean 109		Cfs/m 1.68		In. 22.65	
Water year 1954-55: Max			2,910		Min 15		Mean 112		Cfs/m 1.72		In. 23.32	

Peak discharge (base, 1,600 cfs).--Dec. 30 (1:30 a.m.) 1,780 cfs (4.26 ft); Apr. 14 (3:30 a.m.) 5,680 cfs (6.65 ft).

* Discharge measurement made on this day.

SANTEE RIVER BASIN

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 1,070 ft (by barometer).

Extremes.--Maximum discharge during year, 607 cfs Apr. 14 (gage height, 7.90 ft); minimum, 2.9 cfs Sept. 20, 21 (gage height, 0.52 ft).

1953-55: Maximum discharge, 1,040 cfs Jan. 22, 1954 (gage height, 11.80 ft); minimum, that of Sept. 20, 21, 1955.

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

Rating tables, water year 1954-55 (gage height, in feet and discharge, in cubic feet per second)

Oct. 1 to Nov. 16, Feb. 7 to Sept. 30				Nov. 17 to Feb. 6	
0.5	2.3	1.8	43	1.0	8.8
.6	3.7	2.1	61	1.2	15
.7	5.4	2.5	88	1.5	27
.8	7.5	3.0	123	1.8	43
1.0	13	4.0	212		
1.2	19	5.5	357		
1.5	29	6.0	408		

Note.--Same as preceding table above 1.8 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	8.0	11	27	11	18	19	24	a 11	10	13	6.7
2	4.4	11	11	24	12	17	19	23	*11	9.8	11	6.7
3	3.7	10	9.7	20	12	16	19	23	a 11	9.5	9.5	7.3
4	3.6	9.5	9.4	19	11	16	17	22	a 11	9.5	9.0	7.5
5	3.6	12	11	18	11	16	18	22	a 11	9.2	9.0	7.1
6	3.6	11	29	16	*129	16	20	22	a 11	10	11	6.2
7	3.4	10	18	15	115	*15	18	21	12	12	12	6.0
8	3.9	9.8	*15	14	51	15	16	21	19	10	22	5.4
9	4.7	9.5	*17	14	36	14	16	20	13	12	14	5.2
10	4.7	9.5	15	14	30	14	16	19	20	12	12	5.6
11	4.6	9.5	14	16	32	14	43	18	114	16	11	5.6
12	4.6	9.8	13	14	26	17	189	18	32	21	9.8	5.2
13	4.6	10	20	13	25	15	191	19	23	18	9.0	4.9
14	4.6	9.5	28	13	22	16	340	20	19	*14	9.2	5.1
15	14	9.5	21	13	21	17	128	24	17	12	11	4.9
16	8.5	39	17	12	20	19	81	21	16	10	9.8	*4.4
17	6.9	25	15	12	20	21	61	20	15	9.5	9.5	3.7
18	6.9	14	20	11	18	24	50	20	14	8.8	11	3.7
19	6.7	26	17	13	18	35	*42	19	16	14	9.2	3.4
20	6.4	22	15	12	17	37	38	18	16	22	8.8	3.1
21	6.4	15	14	*12	16	34	34	18	16	14	8.0	3.1
22	6.7	12	13	13	17	124	32	21	16	11	7.8	3.1
23	6.7	12	12	13	21	64	30	24	15	10	*7.8	3.6
24	6.7	11	12	13	20	42	31	a19	13	14	7.8	4.4
25	6.7	9.7	11	13	20	34	31	a17	14	18	6.9	7.8
26	*6.9	9.4	11	12	19	30	28	a15	15	12	6.9	6.2
27	6.9	9.1	11	13	19	26	26	a14	13	11	6.7	5.1
28	6.9	12	11	13	18	24	25	a13	12	13	6.4	5.2
29	9.2	18	51	12	-	22	25	a12	11	15	6.4	5.1
30	9.0	13	67	12	-----	21	24	a 11	11	12	6.2	6.8
31	7.8	-----	35	12	-----	20	-----	a 11	-----	14	6.0	-----
Total	187.3	395.8	574.1	448	788	811	1,627	589	557	393.3	297.7	158.1
Mean	6.04	13.2	18.5	14.5	28.1	26.2	54.2	19.0	18.6	12.7	9.60	5.27
Cfs/m	0.194	0.425	0.593	0.485	0.901	0.840	1.74	0.609	0.596	0.407	0.308	0.169
In.	0.22	0.47	0.68	0.54	0.94	0.97	1.94	0.70	0.66	0.47	0.35	0.19

Calendar year 1954: Max 594 Min 3.4 Mean 20.8 Cfs/m 0.667 In. 9.04

Water year 1954-55: Max 340 Min 3.1 Mean 18.7 Cfs/m 0.599 In. 8.13

Peak discharge (base, 550 cfs).--Apr. 14 (3 a.m.) 607 cfs (7.90 ft).

* Discharge measurement made on this day.

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

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 April 1902 (gage heights only, 1900, 1902), November 1934 to September 1955.

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.--23 years (1896-99, 1935-55), 2,276 cfs (unadjusted).

Extremes.--Maximum discharge during year, 5,650 cfs Apr. 14 (gage height, 6.53 ft); minimum, 98 cfs Nov. 14 (gage height, 2.13 ft); minimum daily, 122 cfs Oct. 17. 1896-1902, 1934-55: 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, 90 cfs Sept. 19, 1954 (gage height, 2.10 ft); minimum daily, 101 cfs July 12, 1953.

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 good except those below 1,000 cfs, which are fair. Flow regulated by four reservoirs above station which have a combined usable capacity of 14,975,000,000 cu ft. Records of chemical analyses and water temperatures for the water year 1955 are given in WSP 1400.

Revisions (water years).--WSP 892: 1936-38. WSP 952: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.2	118	4.0	1,680
2.3	158	5.0	3,120
2.5	260	6.0	4,800
3.3	890	7.0	6,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	908	1,100	1,810	568	1,830	923	154	1,160	444	2,690	2,730
2	142	1,490	1,080	1,588	742	782	282	1,210	1,750	158	2,620	2,840
3	128	1,270	1,050	1,400	953	*854	138	1,810	966	285	2,370	454
4	556	1,470	302	1,860	965	775	1,080	1,390	200	607	2,360	238
5	306	1,210	486	1,780	557	158	972	2,290	138	794	1,660	1,020
6	519	196	731	1,740	762	248	1,360	1,120	1,480	938	1,260	2,300
7	206	188	1,230	2,080	800	1,960	1,010	163	843	969	473	2,000
8	146	454	1,010	626	980	1,030	938	146	792	826	2,400	2,520
9	142	367	1,070	276	2,720	928	172	885	1,270	558	2,370	416
10	130	766	610	755	2,980	955	358	1,070	941	172	2,270	249
11	240	486	292	924	3,780	964	1,610	1,380	1,520	2,440	2,620	126
12	420	908	150	784	1,800	726	3,160	945	321	2,220	2,900	2,090
13	470	142	894	769	1,970	246	3,030	896	1,780	2,650	1,130	1,660
14	511	196	766	890	2,480	733	5,140	270	1,720	2,340	150	2,310
15	1,490	629	784	368	2,310	753	4,800	205	1,950	*2,760	987	2,630
16	190	532	824	324	1,900	312	3,990	1,300	1,370	754	1,180	*1,990
17	122	823	832	1,180	1,680	1,630	1,570	1,290	1,320	146	2,380	450
18	348	1,060	205	591	1,610	2,500	3,540	1,520	218	2,210	2,530	150
19	437	1,230	150	466	440	1,150	4,460	982	200	1,600	2,510	1,040
20	369	766	1,110	276	200	561	4,460	1,120	827	2,130	1,760	1,720
21	610	146	912	444	1,780	1,740	4,460	182	1,580	2,340	204	1,060
22	662	1,100	568	248	975	3,030	1,300	296	1,140	2,740	1,910	1,270
23	628	1,300	301	154	1,040	3,740	809	1,830	2,740	1,550	2,880	1,670
24	142	1,270	284	443	1,500	2,850	182	1,950	1,180	169	2,330	560
25	766	426	393	314	891	2,380	2,380	*1,340	1,130	2,520	2,030	561
26	678	790	468	220	200	492	2,370	*1,390	225	2,210	2,480	1,100
27	431	586	826	167	271	290	1,480	2,850	1,350	2,080	808	1,350
28	1,240	249	1,150	334	1,660	2,380	1,220	1,480	1,580	2,610	150	954
29	*1,720	774	1,850	704	-	2,120	1,400	225	1,690	2,490	2,600	1,400
30	504	776	2,720	274	-----	1,550	407	1,620	1,390	935	3,050	1,240
31	649	-----	2,430	910	-----	1,400	-----	772	-----	170	2,850	-----
Total	15,044	22,506	26,578	23,499	38,514	41,067	58,801	34,081	34,771	44,795	59,892	40,108
Mean	485	750	857	758	1,376	1,325	1,960	1,099	1,159	1,445	1,932	1,337
(†)	-123	-39	+330	+240	+595	+560	+1,197	+466	-19	+84	-505	-594

	Observed					Adjusted					
Calendar year 1954:	Max	19,800	Min	122	Mean	1,665	Mean	1,490	Cfsm	0.971 In.	13.18
Water year 1954-55:	Max	5,140	Min	122	Mean	1,205	Mean	1,385	Cfsm	0.902 In.	12.24

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Bridgewater, Rhodhiss, Oxford and Lookout Shoals Reservoirs; 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, $1\frac{1}{2}$ 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 1955.

Gage.--Water-stage recorder. Datum of gage is 890.99 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 30, 1931, at site 450 ft upstream at same datum.

Average discharge.--19 years (1925-31, 1942-55), 122 cfs.

Extremes.--Maximum discharge during year, 2,660 cfs Feb. 6 (gage height, 7.10 ft), from rating curve extended above 2,000 cfs on basis of slope-area determination of peak flow and computation of peak flow over dam; minimum, 5.0 cfs Sept. 17, 18; minimum daily, 5.6 cfs Aug. 21.

1925-31, 1941-55: 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. Considerable diurnal fluctuation and some regulation caused by mill above station. An average of about 3 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 6				Feb. 7 to Sept. 30			
0.6	7.0	1.6	141	0.5	3.8	1.2	65
.7	12	2.0	261	.6	6.8	1.5	124
.9	27	3.0	625	.7	11	2.0	264
1.1	46	4.5	1,300	.8	18	3.0	625
1.3	73	5.0	1,520	1.0	38		

Note.--Same as preceding table above 3.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	46	57	70	61	45	54	52	53	33	32	28
2	28	40	45	62	62	47	65	46	*54	8.8	46	39
3	25	39	62	62	57	59	60	54	58	7.2	46	9.7
4	24	39	22	56	61	64	65	29	28	22	49	32
5	*22	*40	8.5	64	24	31	65	45	14	62	32	48
6	21	10	94	62	1.140	28	65	44	52	52	7.2	38
7	21	28	81	61	720	*64	64	43	62	44	30	38
8	21	45	64	9.6	254	58	56	43	87	50	123	42
9	23	37	*68	8.0	153	58	26	40	85	28	74	38
10	24	38	68	50	120	63	41	40	70	30	58	8.5
11	30	39	27	56	124	39	103	39	239	120	48	6.8
12	25	39	13	56	114	13	166	52	99	185	49	43
13	25	10	89	57	93	69	240	89	79	114	23	36
14	25	12	107	54	93	97	963	93	65	*83	10	38
15	28	31	68	29	87	95	318	278	65	76	55	39
16	31	52	57	7.0	99	79	182	147	59	41	78	41
17	31	89	56	43	83	87	132	97	58	46	58	7.2
18	34	51	51	57	72	95	118	79	19	54	50	6.7
19	28	45	56	58	32	101	97	74	25	54	46	14
20	27	40	48	48	44	114	*89	69	21	56	19	36
21	27	44	44	*66	67	116	87	35	78	54	5.6	9.0
22	27	38	42	28	70	161	79	168	62	60	32	37
23	21	39	39	12	60	164	72	271	50	32	52	28
24	27	41	41	58	45	120	81	158	67	8.1	36	10
25	32	38	38	56	58	97	93	126	43	47	34	33
26	28	35	36	51	58	87	70	95	8.8	53	20	62
27	27	34	38	66	56	74	56	79	66	54	6.2	42
28	27	38	56	66	67	72	69	59	56	50	6.5	41
29	27	77	133	26	-	62	65	60	50	50	*31	39
30	28	57	244	39	-----	60	38	74	48	24	41	42
31	32	-----	111	61	-----	60	-----	76	-----	7.2	40	-----
Total	821	1,211	1,963.5	1,498.6	3,974	2,392	3,663	2,673	1,820.8	1,805.3	1,237.5	931.9
Mean	26.5	40.4	63.3	48.3	142	77.2	122	86.2	60.7	51.8	39.9	31.1
Cfsm	0.331	0.505	0.791	0.604	1.78	0.965	1.52	1.08	0.759	0.648	0.499	0.389
In.	0.38	0.56	0.91	0.70	1.85	1.11	1.70	1.24	0.85	0.75	0.58	0.43

Calendar year 1954: Max 3,290 Min 7.2 Mean 109 Cfsm 1.36 In. 18.49
 Water year 1954-55: Max 1,140 Min 5.6 Mean 65.2 Cfsm 0.815 In. 11.06

Peak discharge (base, 2,800 cfs).--No peak above base.

* Discharge measurement made on this day.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 736 ft (by barometer).

Extremes.--Maximum discharge during year, 630 cfs Apr. 14 (gage height, 3.77 ft); minimum, 4.6 cfs Oct. 8 (gage height, 0.58 ft).
1951-55: Maximum discharge, 5,030 cfs Mar. 4, 1952 (gage height, 8.74 ft), from rating curve extended above 830 cfs on basis of computation of peak flow over dam at gage heights 4.95, 6.27, and 8.74 ft; minimum, that of Oct. 8, 1954.

Remarks.--Records good.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.6	5.2	1.7	232
.7	10	2.0	290
.8	18	2.5	355
1.0	49	3.0	420
1.2	98	3.5	540
1.4	153	4.0	740

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.3	12	20	32	34	43	43	38	36	22	38	22
2	6.8	14	19	30	*38	41	43	36	34	20	28	19
3	6.4	16	18	29	36	40	60	36	32	19	24	20
4	6.4	14	18	28	34	40	45	36	30	19	23	20
5	6.0	18	24	28	34	40	45	34	30	52	22	18
6	*6.0	16	99	28	292	40	47	32	29	24	23	17
7	5.2	14	38	26	459	40	47	30	28	22	22	16
8	5.2	14	28	26	132	36	41	29	*54	22	202	14
9	6.4	*14	30	25	90	36	41	28	32	30	47	13
10	6.8	14	30	26	82	36	40	28	36	26	34	13
11	6.8	14	26	54	77	36	66	28	154	81	28	12
12	6.8	15	24	36	65	85	75	28	49	220	25	13
13	6.4	15	38	32	58	112	131	90	36	47	23	13
14	6.4	15	51	29	54	*88	507	77	32	38	32	13
15	12	15	36	29	51	67	186	280	30	34	34	12
16	15	23	30	28	47	81	109	90	29	28	24	12
17	9.0	50	28	28	47	72	88	95	28	25	22	12
18	8.4	20	36	26	43	67	77	96	28	23	20	11
19	9.0	28	34	32	41	70	67	56	39	*22	19	10
20	9.0	26	29	34	41	72	63	45	50	53	18	9.7
21	9.0	19	28	32	40	67	58	115	30	112	17	9.7
22	9.0	17	26	38	40	147	56	264	28	86	16	9.7
23	9.0	17	*26	47	41	85	51	328	28	32	20	9.0
24	9.0	18	26	43	45	70	49	109	30	28	17	9.7
25	9.0	16	24	43	49	63	72	85	28	36	16	22
26	9.0	16	24	41	43	63	*49	67	26	64	16	20
27	9.0	16	24	43	41	54	45	54	25	58	16	14
28	9.0	19	24	43	41	51	43	47	25	28	15	15
29	10	47	44	41	-	47	43	43	24	47	15	15
30	12	24	49	38	-----	45	40	40	23	38	*14	30
31	12	---	36	34	-----	43	-----	36	-----	56	13	-----
Total	257.3	576	987	1,049	2,095	1,877	2,325	2,402	1,083	1,412	883	443.8
Mean	8.30	19.2	31.8	33.8	74.8	60.5	77.5	77.5	36.1	45.5	28.5	14.8
Cfsm	0.121	0.281	0.465	0.494	1.09	0.885	1.13	1.13	0.528	0.665	0.417	0.216
In.	0.14	0.31	0.54	0.57	1.14	1.02	1.26	1.31	0.59	0.77	0.48	0.24

Calendar year 1954: Max 2,240 Min 5.2 Mean 56.0 Cfsm 0.819 In. 11.13
Water year 1954-55: Max 507 Min 5.2 Mean 42.2 Cfsm 0.617 In. 8.37

Peak discharge (base, 1,500 cfs).--No peak above base.

* Discharge measurement made on this day.

Long Creek near Bessemer City, N. C.

Location.--Lat 35°18'20", long 81°14'05", on right bank at upstream side of highway bridge, 2 miles northeast of Bessemer City limits, Gason County, and 8 $\frac{1}{4}$ miles upstream from mouth.

Drainage area.--31.4 sq mi.

Records available.--December 1952 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 706.1 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 1,040 cfs May 21 (gage height, 5.33 ft); minimum, 0.4 cfs Oct. 7 (gage height, 0.72 ft); minimum daily, 0.8 cfs Oct. 7, 1952-55; Maximum discharge, that of May 21, 1955; minimum, that of Oct. 7, 1954; minimum daily, that of Oct. 7, 1954.

Remarks.--Records good. Bessemer City diverts out of basin approximately 1.2 cfs for water supply causing slight diurnal fluctuation at low flow.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.7	0.3	2.4	76
.8	1.0	3.0	175
1.0	3.6	3.5	296
1.2	6.8	4.0	462
1.4	10	4.5	658
1.6	16	5.0	878
2.0	35		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	3.5	7.9	10	13	13	15	13	12	6.0	6.8	17
2	1.2	3.8	7.5	10	15	15	15	12	12	5.6	5.6	4.1
3	1.6	3.9	7.0	9.9	12	15	19	*12	12	5.3	5.3	3.6
4	1.5	*3.8	7.2	9.9	13	15	15	12	12	5.1	3.3	5.6
5	*1.4	4.8	9.2	8.1	13	14	15	12	10	5.6	4.4	3.3
6	1.4	4.2	52	9.7	588	18	17	11	10	5.4	3.6	4.4
7	.8	4.2	12	9.3	117	16	17	9.1	9.1	6.0	3.2	*2.8
8	1.0	4.0	11	9.1	51	14	15	10	*11	5.6	19	2.1
9	2.2	4.5	12	9.5	34	13	13	9.9	10	5.1	14	2.9
10	2.3	4.6	12	11	*29	13	14	9.7	11	4.5	4.6	2.1
11	2.2	4.6	9.9	29	39	14	27	9.5	39	9.5	5.6	1.7
12	1.4	*4.6	9.5	15	26	35	23	9.5	14	4.4	4.6	1.6
13	1.8	4.8	27	12	22	24	89	29	11	5.7	3.3	1.6
14	1.7	4.8	25	9.3	22	71	330	40	9.0	8.8	5.6	1.5
15	5.7	4.6	15	9.5	20	30	71	36	9.9	7.2	7.2	1.4
16	4.6	6.6	12	11	18	25	38	19	7.7	5.8	4.0	1.4
17	2.6	12	11	9.1	19	25	31	35	7.3	6.8	3.3	1.4
18	2.5	10	16	11	17	32	26	53	7.3	6.0	4.8	1.2
19	2.5	13	13	16	17	24	24	17	14	*4.0	2.8	1.1
20	2.6	10	11	14	15	24	23	13	16	4.4	3.0	*.9
21	2.1	7.0	11	14	16	24	21	286	9.1	4.6	4.6	.9
22	2.8	6.0	10	20	16	61	19	241	8.6	6.2	4.4	1.2
23	2.9	6.1	10	21	15	*29	17	89	13	6.3	17	.9
24	2.8	6.1	9.9	19	20	24	29	58	16	4.8	3.5	1.0
25	2.6	5.6	9.5	20	20	19	27	36	8.4	3.6	2.8	4.0
26	2.6	*5.1	9.3	19	16	19	19	26	8.2	6.1	3.3	3.5
27	2.5	5.3	9.5	21	17	17	20	7.0	7.0	8.9	3.2	2.0
28	2.5	15	9.5	21	15	17	15	18	7.2	3.2	2.8	1.8
29	3.5	34	*11	18	-	16	15	17	6.6	4.7	2.9	2.2
30	3.2	9.3	12	16	-----	15	14	14	6.3	14	3.0	8.6
31	3.5	-----	10	15	-----	15	-----	14	-----	8.4	2.5	-----
Total	73.6	215.8	398.9	436.4	1,235	706	1,030	1,190.7	334.7	231.2	164.0	87.8
Mean	2.37	7.19	12.9	14.1	44.1	22.8	34.3	38.4	11.2	7.46	5.29	2.93
Cfsm	0.076	0.229	0.411	0.449	1.40	0.726	1.09	1.22	0.357	0.238	0.168	0.093
In.	0.09	0.26	0.47	0.52	1.46	0.84	1.22	1.41	0.40	0.27	0.19	0.10

Calendar year 1954: Max 479 Min 0.8 Mean 22.0 Cfsm 0.701 In. 9.49
 Water year 1954-55: Max 588 Min 0.8 Mean 16.7 Cfsm 0.532 In. 7.23

Peak discharge (base, 650 cfs).--Feb. 6 (12 m.) 970 cfs (5.18 ft); May 21 (7:30 p.m.) 1,040 cfs (5.33 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 1955.

Gage.--Water-stage recorder. Datum of gage is 603.10 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--13 years, 771 cfs.

Extremes.--Maximum discharge during year, 5,380 cfs Feb. 7 (gage height, 8.71 ft); minimum, 25 cfs Oct. 4 (gage height, 0.75 ft); minimum daily, 31 cfs Oct. 8.
1942-55: 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, that of Oct. 8, 1954.

Maximum stage known, 21.33 ft in August 1940, from floodmarks (discharge, 34,000 cfs).

Remarks.--Records good except those below 200 cfs, 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 5.2 cfs from Long Creek and 1.7 cfs from South Fork Catawba River. About 2 cfs of total 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 6				Feb. 7 to Sept. 30			
0.8	27	3.0	547	0.9	35	2.0	230
.9	33	4.0	1,040	1.0	43	2.5	379
1.0	40	5.0	1,720	1.3	77	3.0	550
1.2	60	6.0	2,500	1.5	112	4.0	1,040
1.5	103	8.0	4,500				
2.0	211	10.00	7,200				
2.5	365						

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	146	314	528	344	396	443	396	382	239	294	130
2	99	152	277	425	374	419	429	409	353	189	272	192
3	70	147	230	411	387	419	446	367	321	188	209	181
4	47	177	251	365	365	*405	463	384	300	210	176	138
5	122	175	243	351	340	405	436	389	279	272	228	219
6	109	159	*624	327	1,970	402	446	331	312	344	222	181
7	92	175	464	327	4,860	422	498	328	306	212	161	162
8	31	160	396	318	3,570	355	426	291	279	271	810	189
9	103	171	344	298	2,280	378	419	312	409	259	793	172
10	41	151	361	311	1,010	373	382	312	389	251	375	159
11	40	179	317	390	838	373	433	297	674	*320	309	152
12	128	167	295	426	737	473	673	294	892	825	294	124
13	108	139	385	382	669	877	1,060	349	567	668	236	134
14	58	138	509	351	606	760	3,960	729	392	515	218	75
15	151	163	528	317	587	668	*3,120	1,080	360	396	337	152
16	134	165	454	317	532	626	2,220	950	334	328	274	140
17	119	315	327	307	532	691	1,100	714	314	279	309	125
18	128	379	376	241	508	647	838	763	309	271	274	131
19	140	320	400	317	464	626	714	506	264	209	265	106
20	131	337	358	400	386	668	647	614	419	249	207	139
21	124	308	334	372	436	668	582	775	341	320	160	96
22	124	245	320	368	423	994	556	2,310	363	469	223	40
23	134	210	304	443	420	855	531	2,270	341	337	217	116
24	104	222	280	418	463	785	502	1,350	392	239	108	93
25	109	195	289	372	517	647	665	865	300	249	178	69
26	124	235	284	404	431	587	587	668	262	*263	176	223
27	127	203	279	425	422	532	520	545	325	284	153	233
28	121	196	261	414	441	498	463	485	226	282	141	208
29	114	365	298	418	410	515	446	410	238	325	158	158
30	129	354	528	407	-----	480	396	373	260	306	152	208
31	97	-----	737	389	-----	446	-----	*396	-----	334	99	-----
Total	3,224	6,448	11,327	11,539	24,712	17,398	24,401	20,262	10,903	9,902	8,028	4,443
Mean	104	215	365	372	883	561	813	654	363	319	259	145
Cfs/m	0.165	0.341	0.579	0.590	1.40	0.890	1.29	1.04	0.576	0.506	0.411	0.235
In.	0.19	0.38	0.67	0.68	1.46	1.03	1.44	1.20	0.64	0.58	0.47	0.28

Calendar year 1954: Max 12,400 Min 31 Mean 581 Cfs/m 0.922 In. 12.52
Water year 1954-55: Max 4,860 Min 31 Mean 418 Cfs/m 0.663 In. 9.00

Peak discharge (base, 8,000 cfs).--No peak above base.

* Discharge measurement made on this day.

SANTEE RIVER BASIN

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 1955. 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.--20 years (1895-1902, 1942-55), 4,528 cfs.

Extremes.--Maximum discharge during year, 14,200 cfs Apr. 15 (gage height, 7.69 ft); minimum, 296 cfs July 2 (gage height, 2.77 ft); minimum daily, 490 cfs Oct. 21. 1895-1903, 1942-55: 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, that of Oct. 21, 1954.

Remarks.--Records good. Flow regulated by Catawba Reservoir (usable capacity, 6,542,000 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.9	425	4.5	3,270
3.0	534	5.0	4,670
3.5	1,210	6.0	7,910
4.0	2,120	7.0	11,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	963	630	1,780	1,440	2,270	2,050	3,910	644	2,100	1,700	2,680	1,780
2	937	565	1,790	1,090	1,610	1,770	956	3,740	2,010	572	3,300	2,220
3	987	664	2,340	2,340	1,570	2,340	678	2,790	2,010	618	3,560	567
4	982	624	1,990	2,850	1,940	1,570	2,060	3,250	1,030	1,290	3,640	535
5	892	1,060	680	*2,760	1,730	1,020	2,420	2,980	599	1,030	3,320	964
6	916	722	2,710	1,700	1,350	815	3,600	2,080	2,350	1,130	1,130	2,020
7	950	866	3,390	3,350	794	2,050	927	602	1,270	1,000	710	2,680
8	1,110	837	1,830	1,070	2,730	2,960	592	602	512	624	2,550	*2,690
9	916	692	2,050	936	7,530	2,290	628	2,900	1,340	593	2,850	1,430
10	978	692	2,430	3,240	8,610	1,990	734	3,140	1,090	624	2,910	906
11	942	616	1,480	1,130	8,080	2,030	2,040	2,400	1,190	1,780	3,780	754
12	868	606	1,990	2,510	5,590	940	4,390	2,620	880	4,770	2,300	2,970
13	652	797	2,950	3,110	5,770	*913	3,500	1,230	1,830	4,970	982	2,050
14	512	626	2,090	3,290	9,690	2,110	4,220	1,020	2,320	*5,420	630	1,860
15	608	668	2,180	2,150	7,220	3,020	*11,500	698	2,320	3,730	758	1,930
16	554	794	2,310	1,240	2,750	3,920	9,690	1,740	2,240	1,910	648	1,350
17	629	703	2,090	2,110	2,420	4,160	3,520	1,570	2,060	583	3,630	968
18	576	708	742	1,480	2,850	2,420	6,710	1,340	654	2,510	3,370	649
19	513	743	858	992	795	2,020	8,610	1,840	611	1,760	4,430	1,780
20	540	585	2,600	692	638	1,940	9,330	2,020	1,730	1,820	1,290	1,640
21	490	604	2,700	1,060	2,710	4,070	8,970	848	2,220	1,790	858	1,450
22	538	1,300	1,970	728	2,310	4,620	6,640	752	2,170	2,010	2,080	1,460
23	557	1,380	1,540	1,010	2,070	3,930	1,260	4,930	2,910	1,970	6,320	1,550
24	582	1,250	666	1,440	1,520	4,400	732	6,980	928	630	3,710	842
25	564	1,110	638	2,150	*3,130	3,890	3,650	5,390	682	2,820	1,480	617
26	568	1,210	1,350	1,710	982	1,390	4,720	5,600	578	4,420	3,950	1,530
27	546	878	2,190	1,610	652	1,040	4,810	2,980	1,730	3,590	1,060	1,690
28	554	1,150	3,160	1,840	1,720	3,840	5,040	1,620	1,590	3,440	579	1,340
29	578	*1,110	1,850	2,820	-----	3,570	2,100	1,150	2,150	2,630	3,010	1,610
30	582	1,500	1,770	1,280	-----	3,450	1,280	2,470	2,080	616	2,420	1,210
31	822	-----	1,000	-----	-----	4,920	-----	1,730	-----	610	1,920	-----
Total	22,366	25,730	59,112	57,418	91,031	81,448	119,217	73,656	47,184	62,938	75,562	44,442
Mean	721	858	1,907	1,852	3,251	2,627	3,974	2,376	1,573	2,030	2,437	1,481
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954: Max	43,900			Min	490	Mean	2,979	Cfsm	-	In.	-	
Water year 1954-55: Max	11,500			Min	490	Mean	2,082	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 1955.

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. 21, 1927, staff gage at same site and datum.

Average discharge.--31 years, 44.2 cfs.

Extremes.--Maximum discharge during year, 4,450 cfs Apr. 14 (gage height, 12.30 ft); minimum, 1.5 cfs Oct. 11 (gage height, 1.46 ft).

1924-55: Maximum discharge, 8,370 cfs Apr. 6, 1936 (gage height, 16.2 ft, from floodmarks), from rating curve extended above 2,600 cfs on basis of slope-area determinations of peak flow at gage heights 10.42, 11.47 and 12.00 ft; minimum, 1.2 cfs Sept. 27, 1954.

Remarks.--Records good.

Revisions (water years).--WSP 1052: 1939-44.

Rating table, water year 1954-55 (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	6.0	1,250
2.0	35	8.0	2,030

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	4.1	9.0	12	26	19	17	12	11	7.2	15	17
2	2.9	7.2	8.1	12	31	19	16	11	10	6.4	11	49
3	2.4	5.9	7.7	12	25	29	24	13	11	5.9	19	14
4	2.2	5.9	6.8	12	24	*21	17	13	10	6.8	11	11
5	3.6	21	108	11	23	23	16	12	9.0	6.4	9.0	9.0
6	3.2	6.4	*183	19	1,250	32	38	11	9.7	6.4	8.1	9.7
7	2.7	5.0	25	17	272	23	60	10	9.0	9.0	374	10
8	3.4	5.5	15	11	69	19	21	9.0	9.7	19	115	10
9	2.7	5.9	31	9.0	41	18	17	9.0	9.0	19	22	8.6
10	2.0	6.4	18	18	30	18	15	9.7	56	21	15	7.7
11	2.0	6.4	13	150	173	18	71	10	84	102	17	7.2
12	3.4	5.9	11	27	50	80	32	9.7	16	182	12	7.7
13	3.4	5.5	296	19	30	31	204	66	11	109	10	7.7
14	3.9	5.0	95	16	27	112	*1,880	105	9.7	24	302	7.7
15	260	5.5	33	14	26	40	110	35	8.6	14	255	7.2
16	14	13	21	16	24	31	50	17	7.7	9.7	28	6.8
17	4.4	9.7	19	12	24	26	34	14	7.7	7.7	19	6.4
18	3.9	7.7	41	*12	21	24	29	12	7.7	7.7	18	6.4
19	4.1	7.7	19	76	19	31	25	10	7.7	8.6	15	6.4
20	4.1	28	16	47	19	29	22	10	9.0	296	12	6.4
21	4.1	8.1	14	30	17	24	20	44	8.6	58	10	6.4
22	4.1	7.7	14	53	18	31	19	715	12	25	11	5.9
23	3.9	12	13	42	19	22	17	185	25	14	*10	6.4
24	3.4	8.6	12	47	37	19	27	36	25	94	9.0	9.0
25	*3.4	7.2	10	45	25	19	20	26	31	31	8.6	28
26	4.4	6.4	9.0	40	19	25	17	19	22	17	9.0	9.7
27	4.4	6.8	10	36	17	17	16	15	9.0	19	8.1	6.8
28	4.4	80	12	35	18	16	16	23	8.1	25	7.2	7.2
29	29	38	12	30	30	17	14	14	7.2	24	8.1	7.7
30	8.1	12	12	25	17	17	12	12	7.2	25	8.1	6.4
31	4.4	11	11	26	17	17	11	11	13	14	14	6.4
Total	405.8	354.5	1,104.6	931.0	2,374	867	2,976	1,498.4	468.6	1,210.8	1,388.2	366.0
Mean	13.1	11.8	35.6	30.0	84.8	28.0	99.2	48.3	15.6	39.1	44.8	12.2
Cfsm	0.316	0.285	0.860	0.725	2.05	0.676	2.40	1.17	0.377	0.944	1.08	0.295
In.	0.36	0.32	0.99	0.84	2.13	0.78	2.67	1.35	0.42	1.09	1.25	0.33
Calendar year 1954: Max	1,320				Min	2.0	Mean	35.6	Cfsm	0.860	In.	11.68
Water year 1954-55: Max	1,990				Min	2.0	Mean	38.2	Cfsm	0.923	In.	12.53

Peak discharge (base, 2,100 cfs).--Feb. 6 (4:30 p.m.) 3,100 cfs (10.23 ft); Apr. 14 (3 a.m.) 4,450 cfs (12.30 ft); May 22 (8 p.m.) 3,390 cfs (10.67 ft).

* Discharge measurement made on this day.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 299 ft (by barometer).

Extremes.--Maximum discharge during year, 6,180 cfs Apr. 15 (gage height, 8.27 ft); minimum, 0.04 cfs Oct. 6-13.

1951-55: Maximum discharge, 8,880 cfs Mar. 4, 1952 (gage height, 9.77 ft); minimum, that of Oct. 6-13, 1954.

Remarks.--Records good.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.2	0.01	1.4	51
.3	.08	1.8	109
.4	.30	2.3	224
.5	.80	3.0	477
.6	1.8	4.0	1,080
.7	3.6	5.0	1,880
.8	6.5	6.0	2,830
.9	11	8.0	5,700
1.1	24		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.07	5.6	17	30	50	56	34	38	21	7.4	46	142
2	.06	5.3	15	164	51	52	34	36	20	6.5	82	505
3	.06	4.8	13	101	50	49	38	33	18	5.3	40	345
4	*.06	4.8	13	56	44	51	39	32	17	6.1	81	86
5	.05	8.5	14	*43	41	50	35	30	16	42	30	57
6	.04	12	56	36	784	54	45	28	15	16	19	*45
7	.04	11	63	32	2,810	99	439	25	14	13	15	38
8	.04	6.3	26	29	763	74	226	23	15	16	13	50
9	.04	7.4	23	28	259	61	102	21	17	12	11	26
10	.04	7.4	23	28	170	56	80	20	18	11	9.2	23
11	.04	7.4	22	193	406	57	76	19	34	47	8.8	22
12	.04	7.8	19	146	708	56	*111	18	27	38	8.8	20
13	.04	8.3	26	72	220	52	321	27	16	96	8.3	18
14	.05	8.3	167	50	149	50	4,030	57	13	338	173	17
15	1.0	*8.3	80	44	128	52	3,510	463	12	259	4,290	16
16	4.4	8.8	42	42	109	51	492	136	11	48	877	15
17	5.6	9.6	31	38	95	48	260	67	10	26	126	13
18	2.9	10	30	36	86	46	182	59	9.6	*18	74	12
19	2.3	12	29	497	78	47	141	40	13	15	53	11
20	2.3	15	26	473	71	48	115	33	27	161	61	11
21	2.3	17	23	168	67	48	97	30	27	170	42	10
22	2.3	13	22	154	66	49	86	72	16	71	35	9.2
23	2.5	13	21	174	*63	42	74	629	17	28	38	8.3
24	2.7	18	20	150	62	39	69	161	23	18	53	7.8
25	3.1	16	20	213	67	38	80	90	20	49	30	9.6
26	3.4	12	18	136	61	39	61	62	28	208	25	22
27	3.9	11	18	99	57	36	52	46	23	51	22	19
28	3.9	13	18	83	57	34	50	41	12	40	20	14
29	5.6	19	20	71	-	35	46	34	9.6	233	18	12
30	8.4	21	20	61	-----	35	42	30	8.3	68	17	11
31	7.0	-----	18	53	-----	34	-----	*25	-----	42	165	-----
Total	65.27	323.6	955	3,500	7,592	1,539	10,967	2,425	527.5	2,159.3	6,471.1	1,574.9
Mean	2.11	10.8	30.8	113	271	49.6	366	78.2	17.6	69.7	209	52.5
Cfs/m	0.011	0.056	0.159	0.582	1.40	0.256	1.89	0.403	0.091	0.359	1.08	0.271
In.	0.01	0.06	0.18	0.67	1.46	0.30	2.11	0.46	0.10	0.41	1.24	0.30

Calendar year 1954: Max 4,980 Min 0.04 Mean 132 Cfs/m 0.680 In. 9.24

Water year 1954-55: Max 4,290 Min 0.04 Mean 104 Cfs/m 0.536 In. 7.30

Peak discharge (base, 2,600 cfs).--Feb. 7 (4:45 p.m.) 3,290 cfs (6.31 ft); Apr. 15 (1:45 a.m.) 6,180 cfs (8.27 ft); Aug. 15 (2:15 p.m.) 6,020 cfs (8.22 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 Twentyfivemile 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 1955. Gage-height records collected at site $\frac{1}{2}$ miles downstream 1891-1934, at site 1,000 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 gages at site $\frac{1}{2}$ miles downstream at different datum. Oct. 1, 1929, to Sept. 1, 1942, water-stage recorder at site 1,000 ft upstream at present datum.

Average discharge.--26 years (1929-55), 5,745 cfs.

Extremes.--Maximum discharge during year, 30,800 cfs Apr. 16 (gage height, 22.66 ft); minimum daily, 336 cfs Aug. 14.

1904-10, 1929-55: Maximum discharge uncertain, occurred Aug. 26, 1908 (gage height, 39.7 ft, site and datum then in use, from records of U. S. Weather Bureau); minimum daily, 170 cfs June 3, 1941.

Maximum stage known, 40.4 ft July 18, 1916, at site $\frac{1}{2}$ miles downstream, from records of U. S. Weather Bureau (discharge uncertain).

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: 1908(M), 1934(m).

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,580	2,440	2,870	780	3,990	3,670	3,990	523	2,720	1,490	3,490	3,530
2	644	2,770	2,840	590	2,910	3,670	3,670	4,450	2,780	690	5,320	3,450
3	428	3,130	3,580	3,010	2,980	3,160	1,030	4,700	2,520	402	4,750	2,080
4	2,330	4,020	3,520	2,890	2,950	3,440	3,240	5,250	666	1,120	4,200	580
5	2,100	5,270	1,480	3,250	3,490	1,640	4,440	5,070	1,350	762	3,300	3,420
6	2,320	2,430	3,660	2,470	1,620	722	3,240	4,070	3,180	1,650	1,180	5,030
7	1,300	574	4,410	4,800	7,670	3,600	*5,180	1,100	2,430	1,830	344	4,610
8	1,280	2,280	3,700	3,240	15,400	4,410	7,140	408	1,950	1,500	2,370	2,480
9	574	1,840	4,020	798	*16,100	2,680	3,950	3,080	1,280	875	4,870	1,370
10	434	1,680	4,580	3,800	16,100	2,860	1,240	3,470	1,260	348	4,920	1,310
11	378	1,270	5,180	4,780	16,100	2,120	3,710	2,900	1,280	2,950	5,180	454
12	656	2,530	4,020	4,730	16,100	528	4,390	2,600	484	4,400	4,590	2,840
13	702	1,540	4,330	4,700	9,280	481	5,590	2,600	1,220	7,320	2,260	3,280
14	852	491	3,870	5,090	8,230	1,340	11,500	837	1,360	8,040	336	3,710
15	2,390	1,600	4,730	3,910	9,350	2,520	20,600	514	1,360	7,040	7,730	3,060
16	822	1,700	4,590	984	6,540	4,980	29,300	2,570	1,580	5,760	12,500	1,360
17	474	2,250	5,360	3,870	4,870	5,920	20,100	2,530	1,440	1,290	9,830	1,060
18	746	2,300	2,850	3,550	5,150	5,930	17,700	2,320	791	4,420	4,390	508
19	774	2,050	2,470	3,070	4,880	4,730	16,900	2,290	355	4,210	3,770	2,570
20	1,140	1,340	4,400	2,990	1,020	2,680	16,500	2,710	1,530	1,720	2,580	2,890
21	773	469	4,740	5,410	3,570	4,950	16,100	1,070	2,850	1,990	527	1,820
22	1,280	1,950	3,320	4,370	3,600	6,230	11,600	1,420	3,600	2,410	4,930	1,110
23	1,740	2,460	804	2,290	3,160	5,030	3,260	12,800	3,740	3,320	4,840	1,440
24	438	3,090	461	3,130	4,840	4,210	541	*15,100	2,850	*775	3,620	606
25	1,420	2,550	428	4,760	5,280	4,680	5,860	6,670	2,890	2,930	2,720	436
26	767	2,620	428	4,590	2,960	2,740	5,470	3,280	514	4,920	4,170	2,130
27	789	2,010	2,640	4,240	658	2,740	4,220	3,170	420	5,460	2,480	2,090
28	746	563	3,840	4,330	3,420	3,560	5,250	2,530	2,020	5,360	408	1,610
29	930	2,990	2,490	3,830	-	3,800	5,570	1,360	2,810	3,700	4,180	1,760
30	1,510	3,510	2,950	1,700	-	5,500	1,790	3,650	2,410	2,420	3,820	2,040
31	428	-	1,920	3,940	-	5,680	-	3,710	-	548	1,950	-
Total	33,943	65,517	100,441	106,530	182,198	110,601	243,091	108,752	55,440	91,670	121,515	64,614
Mean	1,095	2,184	3,240	3,436	6,507	3,568	8,103	3,506	1,848	2,957	3,920	2,154
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954: Max	55,300	Min	321	Mean	4,542	Cfsm	-	In.	-	-	-	-
Water year 1954-55: Max	29,300	Min	336	Mean	3,519	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 1955.

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.--28 years (1927-55), 171 cfs.

Extremes.--Maximum discharge during year, 574 cfs Sept. 2 (gage height, 2.26 ft); minimum, 3.2 cfs Dec. 23, 24, Mar. 5, 6, 7 (gage height, 0.51 ft); minimum daily, 3.2 cfs Dec. 24, Mar. 6.

1927-55: 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, 1928.

Remarks.--Records good. Large diurnal fluctuation and complete regulation at low flow caused by powerplant above station.

Revisions (water years).--WSP 892: 1927(M), 1928-30, 1933, 1935-39(M).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.5	2.9	1.3	115
.6	5.9	1.5	183
.7	10	2.0	420
.8	18	2.5	750
.9	30		
1.1	64		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	82	79	147	78	76	156	5.9	143	79	*221	82
2	6.8	39	80	5.3	79	76	69	146	144	70	271	390
3	7.3	12	76	136	*81	76	4.4	143	81	13	272	463
4	82	12	3.5	146	80	75	75	147	82	56	171	229
5	31	12	3.5	142	4.7	73	75	143	7.5	34	303	169
6	7.7	11	78	142	5.6	3.2	78	80	80	75	146	302
7	8.2	11	78	142	127	73	74	41	80	80	16	*208
8	8.2	83	78	139	187	72	74	5.9	82	105	151	94
9	8.2	40	79	3.8	225	73	73	84	82	134	164	81
10	8.2	*11	77	78	305	76	4.4	82	116	9.1	475	41
11	77	12	3.5	76	300	76	203	88	127	248	337	8.7
12	35	12	3.5	77	211	75	413	6.4	7.3	370	214	147
13	14	12	77	79	4.4	3.8	337	6.8	*130	461	45	144
14	9.1	12	80	76	136	153	473	6.4	81	535	32	146
15	9.1	74	76	76	136	85	496	273	83	535	223	145
16	9.1	40	80	3.8	137	82	314	415	82	265	300	141
17	9.6	7.3	78	76	156	79	147	386	80	9.1	257	82
18	80	5.0	3.5	78	77	82	265	299	81	148	147	8.7
19	34	99	3.5	78	5.6	80	205	264	47	145	139	143
20	9.1	104	*80	4.1	5.3	5.0	198	146	300	221	115	82
21	9.1	5.3	76	4.1	78	79	135	182	293	224	37	82
22	9.1	146	77	4.4	78	200	130	169	302	221	142	81
23	10	141	76	4.4	76	305	83	314	297	82	139	79
24	10	141	3.2	74	78	231	5.0	336	261	12	143	8.2
25	82	77	3.5	79	76	140	138	380	43	147	143	96
26	37	79	3.8	78	77	141	136	383	8.2	222	128	59
27	10	4.1	77	76	4.4	5.3	*135	222	80	298	179	79
28	10	4.1	78	78	78	141	149	80	82	146	45	64
29	10	79	79	4.4	-	138	145	5.9	80	146	81	80
30	10	78	144	4.4	-----	138	145	141	80	148	79	80
31	10	---	145	77	-----	138	-----	147	-----	12	78	---
Total	665.2	1,444.8	1,879.5	2,188.7	2,868.0	3,050.3	4,914.8	5,128.3	3,441.8	5,248.2	5,193	3,814.6
Mean	21.5	48.2	60.6	70.6	102	98.4	164	165	115	169	168	127
Cfsm	0.222	0.497	0.625	0.728	1.05	1.01	1.69	1.70	1.19	1.74	1.73	1.51
In.	0.26	0.55	0.72	0.84	1.10	1.17	1.88	1.97	1.32	2.01	1.99	1.46
Calendar year 1954: Max			1,080		Min 3.2		Mean 99.9		Cfsm 1.03	In. 13.99		
Water year 1954-55: Max			535		Min 3.2		Mean 109		Cfsm 1.12	In. 15.27		

* Discharge measurement made on this day.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 670 ft (by barometer).

Average discharge.--30 years, 287 cfs.

Extremes.--Maximum discharge during year, 2,160 cfs Feb. 7 (gage height, 4.14 ft); minimum, 10 cfs Oct. 8, 9, 10 (gage height, 0.55 ft); minimum daily, 10 cfs Oct. 9.
1925-55: 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 except those below 100 cfs, which are fair, and those for period of no gage-height record, which are poor. Considerable diurnal fluctuation and some regulation caused by mills above station.

Revisions (water years).--WSP 892: 1928(M), drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.5	7.0	1.5	208
.6	13	2.0	445
.7	22	2.5	735
.8	35	3.0	1,160
1.0	67	4.0	2,030
1.2	109		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	62	93	182	128	124	129	124	158	52	97	84
2	84	70	102	141	*105	141	121	154	132	69	107	228
3	47	86	107	153	*129	118	168	145	109	56	104	168
4	59	73	98	109	124	138	182	138	102	102	124	80
5	55	86	95	121	126	121	141	86	98	93	104	117
6	*41	86	193	121	520	107	145	98	130	86	59	95
7	*62	80	195	118	1,820	171	175	109	101	135	90	*88
8	49	86	88	121	758	110	132	98	118	126	102	82
9	10	88	135	104	400	124	138	124	158	118	170	84
10	34	115	109	141	302	100	135	141	88	102	229	53
11	100	86	115	121	263	112	197	91	154	232	124	38
12	65	86	100	141	233	121	299	86	216	329	102	95
13	58	82	138	132	204	164	324	153	178	222	82	73
14	57	82	148	126	212	*242	1,150	257	*98	190	58	75
15	51	149	206	115	190	204	1,000	261	109	171	651	46
16	12	54	149	100	171	168	456	306	109	124	456	88
17	55	112	98	104	161	171	340	176	107	84	171	50
18	74	132	129	126	167	161	310	171	107	158	138	53
19	46	104	129	107	130	171	234	164	72	143	91	60
20	43	132	126	138	138	204	229	132	154	607	109	a65
21	55	121	*118	121	178	216	186	154	161	259	91	a60
22	68	95	104	132	114	269	178	534	110	160	98	a60
23	62	100	102	141	164	345	164	872	154	138	102	a60
24	57	98	109	158	141	208	168	788	114	109	104	a60
25	67	93	102	138	151	204	337	360	121	118	100	a90
26	73	135	100	132	141	197	175	250	109	*165	86	a150
27	71	82	109	138	132	178	*141	138	118	118	50	a100
28	60	91	93	137	171	216	103	158	127	102	60	a90
29	68	175	132	109	-	164	112	171	118	102	100	a90
30	86	154	341	121	-----	124	132	161	87	109	110	a110
31	83	--	242	158	-----	154	-----	138	-----	91	36	--
Total	1,779	2,975	4,105	4,006	7,471	5,247	7,701	6,830	3,717	4,670	4,105	2,802
Mean	57.4	99.2	132	129	267	169	257	220	124	151	132	86.7
Cfsm	0.272	0.470	0.626	0.611	1.27	0.801	1.22	1.04	0.588	0.716	0.626	0.411
In.	0.31	0.52	0.72	0.71	1.32	0.92	1.36	1.20	0.66	0.82	0.72	0.46
Calendar year 1954: Max		5,010		Min	10	Mean	212	Cfsm	1.00	In.	13.66	
Water year 1954-55: Max		1,820		Min	10	Mean	151	Cfsm	0.716	In.	9.72	

Peak discharge (base, 3,000 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 First Broad River near Lawndale and Broad River near Boiling Springs.

SANTEE RIVER BASIN

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 1955.

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 ft higher.

Average discharge--30 years, 1,389 cfs.

Extremes--Maximum discharge during year, 7,160 cfs Feb. 7 (gage height, 6.55 ft); minimum, 40 cfs Oct. 17 (gage height, 1.02 ft); minimum daily, 105 cfs Oct. 10.
1925-55: Maximum discharge, 73,300 cfs Aug. 16, 1928 (gage height, 24.3 ft, former site, present datum); minimum, that of Oct. 17, 1954; minimum daily, that of Oct. 10, 1954.

Remarks--Records good. Considerable diurnal fluctuation and some regulation caused by powerplants above station.

Revisions (water years)--WSP 892: 1928, drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.2	95	2.0	690
1.3	146	2.5	1,250
1.4	203	3.0	1,900
1.5	271	4.0	3,500
1.6	346	6.0	6,240
1.8	508	7.0	7,800

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	223	271	458	1,210	543	801	876	690	801	662	466	578
2	192	324	491	965	690	801	833	552	922	578	906	584
3	152	346	482	605	*587	662	750	987	801	346	1,010	1,530
4	217	338	468	770	700	770	615	780	730	534	1,120	1,010
5	203	378	593	886	710	671	886	710	517	475	780	643
6	230	286	740	690	2,200	534	908	790	458	671	932	*517
7	*257	251	1,030	671	5,320	543	1,120	720	615	517	508	833
8	251	324	570	822	3,080	690	897	483	740	780	517	740
9	120	362	552	805	2,040	760	854	442	822	865	841	624
10	105	*386	526	491	1,630	700	615	671	671	740	1,260	534
11	275	366	483	861	1,510	615	690	690	999	1,060	1,180	294
12	271	378	401	780	1,390	720	2,180	700	1,180	2,720	876	294
13	271	286	450	740	1,230	634	1,970	780	561	1,640	788	409
14	286	257	740	710	730	844	5,790	1,420	730	2,310	346	500
15	286	409	720	700	965	1,050	4,170	1,120	720	1,840	1,950	442
16	126	370	578	500	954	965	2,870	1,520	720	1,340	1,770	458
17	123	552	526	417	1,030	801	1,900	1,770	662	790	1,380	466
18	278	483	543	517	920	865	1,300	1,590	483	534	1,010	316
19	271	433	508	605	700	833	1,410	1,200	733	833	662	271
20	264	596	433	801	543	710	1,350	1,030	1,020	1,640	643	417
21	294	534	483	578	543	671	1,580	1,460	1,130	1,200	433	409
22	294	425	491	596	710	1,160	1,140	2,870	1,050	920	417	354
23	217	442	615	561	822	1,550	1,250	3,660	1,060	865	687	354
24	163	508	466	543	865	1,540	611	2,720	1,080	517	643	331
25	257	508	401	671	876	1,210	1,050	1,900	954	*491	561	354
26	316	483	354	740	876	1,090	*1,170	1,770	760	813	624	393
27	324	354	370	740	615	854	1,280	1,610	508	801	491	450
28	301	378	401	662	552	652	697	1,250	720	976	393	370
29	316	596	578	615	-	886	822	954	770	801	378	331
30	251	552	1,730	508	-	886	854	615	681	770	491	393
31	217	-	1,520	483	-	854	-	833	-	570	500	-
Total	7,351	12,196	18,500	21,043	34,331	26,322	42,938	38,287	23,498	29,599	24,563	15,199
Mean	237	407	597	679	1,226	849	1,431	1,235	783	955	792	507
Cfs/m	0.274	0.471	0.691	0.786	1.42	0.983	1.66	1.43	0.906	1.11	0.917	0.587
In.	0.32	0.52	0.80	0.91	1.48	1.13	1.85	1.65	1.01	1.27	1.06	0.65

Calendar year 1954: Max 18,600 Min 105 Mean 945 Cfs/m 1.09 In. 14.85
Water year 1954-55: Max 6,320 Min 105 Mean 805 Cfs/m 0.932 In. 12.65

Peak discharge (base, 9,000 cfs)--No peak above base.
* Discharge measurement made on this day.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 735.94 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--15 years, 260 cfs.

Extremes.--Maximum discharge during year, 3,150 cfs Feb. 7 (gage height, 8.43 ft); minimum, 13 cfs Sept. 18; minimum daily, 31 cfs Sept. 18.

1940-55: 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, that of Sept. 18, 1955; minimum daily, 23 cfs Sept. 19, 1954.

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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 6

Feb. 7 to Sept. 30

1.5 33 2.0 134
1.6 46 2.5 350
1.8 81

1.4 26 2.5 350
1.5 35 3.0 625
1.7 65 4.0 1,240
2.0 136 6.0 2,040

Note.--Same as following Table above 2.5 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	66	90	170	112	122	125	114	106	79	114	69
2	52	73	85	141	*115	119	125	114	101	63	114	113
3	49	70	90	122	115	114	170	111	101	71	116	166
4	48	70	85	118	114	133	106	94	222	101	79	79
5	45	68	95	118	115	111	125	106	92	99	90	79
6	*41	88	185	112	825	111	133	103	92	163	75	*77
7	41	68	156	109	1,590	116	146	87	92	122	73	71
8	42	75	109	103	552	108	125	94	181	170	341	71
9	42	*73	106	106	340	106	119	94	106	143	203	58
10	48	73	106	106	268	103	119	87	103	111	114	53
11	49	73	99	134	268	103	200	90	481	351	101	53
12	49	73	94	128	222	146	282	90	174	1,090	92	62
13	46	73	128	112	185	167	505	288	122	315	75	60
14	46	75	159	103	178	*178	1,830	297	*103	204	125	53
15	60	73	134	101	170	181	766	574	99	178	217	55
16	56	103	112	103	170	163	430	222	96	146	128	55
17	56	165	106	99	150	180	310	181	92	99	108	55
18	57	96	109	96	143	163	245	167	87	106	90	31
19	60	94	122	131	143	185	231	133	119	110	83	47
20	59	106	109	131	130	189	193	114	119	1,510	81	48
21	57	109	103	125	125	197	181	125	188	368	69	45
22	57	85	101	131	125	226	170	450	150	236	75	45
23	57	88	*96	125	130	231	156	779	122	163	77	45
24	57	88	99	128	143	204	153	336	106	136	75	45
25	59	88	99	125	139	178	242	254	103	*167	73	67
26	59	83	96	125	133	185	*167	189	94	146	71	106
27	59	77	88	125	122	153	133	163	99	122	65	65
28	57	94	99	125	122	143	133	150	85	116	51	69
29	57	159	159	128	-	139	130	125	83	101	65	65
30	70	118	291	125	-----	133	125	116	83	103	67	91
31	62	-	193	115	-----	130	-----	111	-----	114	63	-
Total	1,649	2,684	3,702	3,720	6,948	4,678	7,902	5,970	3,675	7,164	3,190	1,998
Mean	53.2	89.5	119	120	248	151	263	193	122	231	103	66.6
Cfsm	0.269	0.452	0.601	0.606	1.25	0.763	1.33	0.975	0.616	1.17	0.520	0.336
In.	0.31	0.50	0.70	0.70	1.31	0.88	1.48	1.12	0.69	1.35	0.60	0.38

Calendar year 1954: Max 4,780 Min 23 Mean 210 Cfsm 1.06 In. 14.41
Water year 1954-55: Max 1,830 Min 31 Mean 146 Cfsm 0.737 In. 10.02

Peak discharge (base, 5,000 cfs).--No peak above base.

* 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 (revised).--July 1896 to December 1899 (gage heights and discharge measurements only), December 1898 to September 1955. 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.--16 years (1939-55), 2,312 cfs.

Extremes.--Maximum discharge during year, 14,700 cfs Feb. 7 (gage height, 8.55 ft); minimum, 140 cfs Oct. 24; minimum daily, 224 cfs Oct. 24.
1938-55: Maximum discharge, 119,000 cfs Aug. 14, 1940 (gage height, 19.78 ft), by computation of flow over Gaston Shoals Dam; minimum, that of Oct. 24, 1954; minimum daily, that of 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 12, 13)

2.2	190	4.0	2,100
2.6	362	6.0	6,520
3.0	670	8.0	12,800
3.5	1,250	9.0	16,800

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	512	459	930	2,060	947	1,330	1,420	1,220	1,450	977	1,130	758
2	411	590	936	1,490	1,350	1,220	1,290	1,050	1,300	794	1,270	905
3	317	615	787	1,350	1,120	1,350	1,360	1,340	1,350	846	1,600	1,850
4	361	642	957	1,130	1,130	1,290	1,340	1,240	1,120	544	1,670	1,570
5	501	700	822	1,360	1,320	1,170	1,330	1,100	1,090	2,260	1,100	898
6	*397	700	1,480	1,250	4,500	969	1,510	1,220	949	1,030	1,340	*827
7	368	635	1,850	*1,160	13,300	1,160	1,800	1,150	898	962	816	1,010
8	418	556	1,100	1,340	6,600	958	1,480	955	1,170	1,300	3,150	1,190
9	411	680	1,040	1,090	4,310	1,330	1,300	873	1,360	1,490	2,000	822
10	368	700	1,130	1,100	3,120	1,170	1,160	863	1,180	1,120	1,860	681
11	374	730	945	1,350	2,800	1,060	1,360	1,080	2,130	1,710	1,750	757
12	374	661	954	1,540	2,600	1,230	*2,340	1,030	2,570	8,140	1,490	554
13	483	670	844	1,240	2,300	1,320	3,600	1,320	1,170	3,520	1,130	526
14	452	531	1,250	1,300	1,700	2,380	11,200	2,800	1,070	3,120	801	567
15	542	696	1,370	1,170	1,710	1,730	8,600	3,170	1,100	3,020	1,860	775
16	450	730	1,330	1,070	1,660	1,690	5,220	3,020	1,180	2,260	3,220	686
17	380	*1,170	884	874	1,830	1,570	3,980	2,610	1,030	1,360	2,000	506
18	380	1,130	1,120	860	1,550	1,490	2,700	2,680	980	*983	1,520	739
19	538	805	1,090	1,320	1,480	1,530	2,460	1,880	1,180	1,040	1,000	502
20	454	884	946	1,350	1,150	1,350	2,300	1,680	2,040	4,450	962	444
21	536	964	828	1,300	1,190	1,350	2,600	2,540	1,750	3,010	743	522
22	513	898	890	1,080	1,170	2,800	2,020	5,790	1,680	1,870	846	594
23	718	712	1,040	1,190	*1,400	2,530	2,020	7,110	1,760	1,530	769	523
24	224	954	1,030	1,290	1,500	2,520	1,670	5,850	1,870	986	968	492
25	417	888	744	1,140	1,520	2,080	2,020	3,760	1,490	1,030	931	656
26	536	924	911	1,310	1,480	1,740	1,840	3,120	1,400	1,340	856	642
27	587	674	692	1,480	1,210	1,480	2,040	2,600	954	1,370	832	712
28	536	835	845	1,310	1,140	1,320	1,040	2,200	911	1,570	522	661
29	598	1,270	1,050	1,180	1,360	1,460	1,520	1,100	1,560	1,560	747	599
30	570	1,090	2,330	1,170	-----	1,500	1,460	1,310	1,210	1,380	629	585
31	495	-----	2,700	896	-----	1,440	-----	*1,250	-----	1,100	663	-----
Total	14,219	23,469	34,915	38,750	67,087	47,217	76,360	69,111	40,442	57,672	40,075	22,553
Mean	459	782	1,126	1,250	2,396	1,523	2,545	2,229	1,348	1,860	1,293	752
Cfsm	0.308	0.525	0.756	0.839	1.61	1.02	1.71	1.50	0.905	1.25	0.868	0.505
In.	0.36	0.59	0.87	0.97	1.68	1.18	1.91	1.73	1.01	1.44	1.00	0.56
Calendar year 1954: Max	13,400	Min	224	Mean	1,691	Cfsm	1.13	In.	15.43			
Water year 1954-55: Max	13,300	Min	224	Mean	1,467	Cfsm	0.978	In.	13.30			

Peak discharge (base, 16,000 cfs).--No peak above base.

* 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 1955.

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.--25 years (1930-55), 200 cfs.

Extremes.--Maximum discharge during year, 1,840 cfs Feb. 7 (gage height, 8.28 ft), from rating curve extended above 1,400 cfs on basis of computation of flow over dam 2 miles above station; minimum, 9 cfs Oct. 6; minimum daily, 28 cfs Oct. 6, 7.

1929-55: Maximum discharge, 12,500 cfs Aug. 14, 1940 (gage height, 27.13 ft), from rating curve extended above 1,400 cfs as explained above; minimum, that of Oct. 6, 1954; minimum daily, that of Oct. 6, 7, 1954.

Remarks.--Records fair. Some diurnal fluctuation at low and medium flow caused by mill above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 17 to Dec. 6, Dec. 30, 31, Feb. 6-10, 13-24, Mar. 16 to Apr. 9, Apr. 12-22, 27-30, May 21-24, July 12, 13, 15, 16, 20, Aug. 15)

2.7	23	4.0	238
3.0	52	5.0	484
3.5	132	8.0	1,370

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	42	105	134	88	101	82	103	119	74	168	58
2	34	44	100	119	94	96	83	100	*114	71	142	88
3	33	45	90	109	94	93	110	96	109	68	109	90
4	30	46	85	100	91	94	100	94	105	71	94	74
5	*29	53	103	96	85	93	88	93	100	138	88	68
6	28	56	228	*93	529	105	110	88	98	143	83	66
7	28	52	146	86	1,350	105	152	80	98	98	74	*60
8	29	51	100	82	352	91	118	80	98	108	77	56
9	29	51	100	85	308	88	94	78	98	110	96	51
10	34	51	110	90	231	90	109	78	93	119	85	53
11	33	51	91	123	214	91	162	74	156	211	74	52
12	33	52	86	105	181	86	394	77	141	656	68	52
13	32	52	114	93	136	96	374	135	105	346	70	52
14	32	52	137	86	150	148	*782	161	96	305	70	52
15	33	53	110	83	119	123	481	190	91	156	222	50
16	31	*78	95	85	109	100	231	156	88	134	111	48
17	35	143	90	82	107	93	176	156	85	127	86	48
18	37	112	108	82	100	96	166	176	85	110	78	46
19	38	145	113	98	94	94	152	127	116	*103	71	45
20	37	134	98	105	91	96	138	116	116	293	66	45
21	39	116	87	98	90	98	130	476	127	159	65	44
22	39	100	85	112	85	148	134	1,080	103	125	64	*42
23	40	86	82	121	94	127	127	1,140	107	109	58	41
24	41	105	80	110	107	109	137	574	103	103	60	41
25	41	91	77	103	*123	100	209	245	101	109	58	86
26	40	82	76	96	109	105	140	201	119	101	56	64
27	38	82	76	93	105	96	118	176	96	96	52	55
28	38	95	80	91	103	91	112	156	88	80	55	52
29	41	196	167	91	-	88	107	145	85	86	47	52
30	42	128	346	85	-----	85	98	138	78	93	57	50
31	41	-	197	88	-----	83	-----	127	-----	114	52	-
Total	1,088	2,444	3,562	3,022	5,919	3,109	5,434	6,717	3,118	4,626	2,556	1,679
Mean	35.1	81.5	115	97.5	211	100	181	217	104	149	82.5	56.0
Cfs/m	0.303	0.703	0.991	0.841	1.82	0.862	1.56	1.87	0.897	1.28	0.711	0.483
In.	0.35	0.78	1.14	0.97	1.90	0.99	1.74	2.16	1.00	1.48	0.82	0.54

Calendar year 1954: Max 3,620 Min 28 Mean 145 Cfs/m 1.25 In. 17.02
Water year 1954-55: Max 1,350 Min 28 Mean 119 Cfs/m 1.03 In. 13.87

Peak discharge (base, 1,600 cfs).--Feb. 7 (6 p.m.) 1,840 cfs (8.28 ft).

* Discharge measurement made on this day.

SANTÉE RIVER BASIN

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 1955.

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, 15.98 ft May 22; minimum, 6.43 ft Oct. 8, 1930-55: Maximum gage height, 17.68 ft Oct. 19, 1937; minimum, 2.76 ft Oct. 8, 1930.

Remarks.--Reservoir is formed by concrete dam completed in 1926. Capacity, 879,000,000 gal between gage heights 0.0 ft (limit of drawdown) and 15.0 ft (top of flashboards). 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 9,024,000 gal per day (14.0 cfs) from reservoir for municipal supply during water year 1955. Surplus water is used for generation of power.

Corrections.--Corrected figures of daily mean gage height, in feet, for the water years 1933, 1947-48, superseding figures published in WSP 742, 1082, and 1112, are given herewith:

June 10, 1933..... 8.99
Jan. 11, 1947..... 12.55
Jan. 14, 1947..... 12.73
Mar. 8, 1948..... 15.32

Mean gage height, in feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.50	8.89	12.77	12.87	13.28	12.12	12.31	11.94	14.82	14.47	14.47	10.71
2	6.53	9.06	12.61	12.83	13.27	11.92	12.57	11.86	14.85	14.52	14.87	10.71
3	6.57	9.26	12.52	12.76	13.24	11.78	12.68	11.89	14.82	14.18	14.84	10.70
4	6.59	9.47	12.50	12.76	13.13	11.79	12.79	11.91	14.79	14.05	14.79	10.82
5	6.55	9.74	12.48	12.74	13.01	11.80	12.88	11.94	14.74	14.25	14.69	10.84
6	6.50	10.02	12.65	12.69	13.58	11.83	12.91	12.07	14.73	14.66	14.57	10.80
7	6.46	10.26	13.16	12.61	15.33	12.04	13.42	12.14	14.69	14.70	14.41	10.72
8	6.44	10.48	13.19	12.50	15.53	12.18	14.21	12.23	14.68	14.68	14.14	10.60
9	6.48	10.70	12.86	12.45	15.11	12.24	14.31	12.29	14.65	14.75	14.13	10.43
10	6.53	10.91	12.57	12.53	14.80	12.32	14.27	12.32	14.59	14.91	14.13	10.31
11	6.60	11.06	12.18	12.80	14.56	12.43	14.35	12.27	14.59	15.00	14.01	10.38
12	6.67	11.27	11.79	13.08	14.53	12.48	14.98	12.18	14.49	15.18	13.85	10.37
13	6.72	11.47	11.63	13.22	14.52	12.44	15.08	12.41	14.41	15.35	13.68	10.19
14	6.74	11.65	11.69	13.23	14.48	12.67	15.31	13.01	14.37	15.18	13.45	9.98
15	6.79	11.84	11.69	13.21	14.31	13.53	15.33	13.18	14.41	15.05	13.43	9.80
16	6.85	11.99	11.56	13.20	14.05	13.51	15.09	13.44	14.45	14.91	13.15	9.59
17	6.93	12.19	11.69	13.17	13.79	13.25	15.05	13.76	14.47	14.89	12.91	9.37
18	7.00	12.31	11.87	13.10	13.52	13.10	14.86	14.17	14.48	14.62	12.75	9.13
19	7.06	12.46	12.12	13.04	13.27	12.61	13.97	14.48	14.51	14.66	12.57	8.92
20	7.17	12.42	12.31	12.80	13.09	12.67	13.60	14.68	14.34	14.86	12.46	8.65
21	7.30	12.36	12.41	12.81	12.90	12.60	13.37	14.97	14.45	15.06	12.34	8.39
22	7.42	12.30	12.43	12.88	12.53	12.59	13.23	15.81	14.60	14.49	12.22	8.11
23	7.55	12.31	12.31	13.21	12.20	12.62	13.10	15.74	14.60	14.51	12.08	7.75
24	7.69	12.47	12.05	13.49	12.02	12.50	12.97	15.44	14.69	14.54	11.96	7.59
25	7.82	12.56	11.87	13.46	11.98	12.26	13.05	15.12	14.58	14.58	11.79	7.92
26	7.95	12.48	11.87	13.29	12.02	12.18	13.19	14.97	14.55	14.66	11.61	8.75
27	8.07	12.39	11.92	13.28	12.07	12.19	13.09	14.84	14.75	14.66	11.43	9.19
28	8.18	12.37	11.73	13.26	12.09	12.14	12.88	14.64	14.74	14.60	11.26	9.36
29	8.24	12.53	11.50	13.21	-	12.08	12.61	14.67	14.68	14.50	11.58	9.39
30	8.54	12.79	11.89	13.22	-----	12.17	12.31	14.78	14.60	14.40	11.06	9.41
31	8.72	-	12.63	13.25	-----	12.25	-----	14.79	-----	14.35	10.91	-

Monthly gage height and contents, water year October 1954 to September 1955

Date	Gage height (feet)†	Contents (millions of gallons)	Change in contents during month (equivalent in cubic feet per second)
Sept. 30.....	6.48	255	-
Oct. 31.....	8.80	388	+6.6
Nov. 30.....	12.81	676	+14.9
Dec. 31.....	12.88	682	+3
Calendar year 1954.....	-	-	+7
Jan. 31.....	13.27	715	+1.6
Feb. 28.....	12.10	618	-5.4
Mar. 31.....	12.28	633	+8
Apr. 30.....	12.12	620	-7
May 31.....	14.80	859	+12.0
June 30.....	14.53	832	-1.4
July 31.....	14.32	812	-1.0
Aug. 31.....	10.83	523	-14.4
Sept. 30.....	9.48	431	-4.8
Water year 1954-55.....	-	-	+7

† Gage height at 12 p.m.

Pacolet River near Fingerville, S. C.

Location.--Lat 35°07', long 81°58', on right bank 100 ft upstream from bridge on State Highway 55, 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 1955.

Gage.--Water-stage recorder. Datum of gage is 706.33 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--25 years (1930-55), 329 cfs.

Extremes.--Maximum discharge during year, 2,810 cfs Feb. 7, May 23; maximum gage height, 5.10 ft Feb. 7; minimum daily discharge, 32 cfs Oct. 6, 7.

1929-55: 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, that of Oct. 6, 7, 1954.

Maximum stage known, 46 ft in June 1903, from floodmark (discharge not determined).

Remarks.--Records good except those for period of no gage-height record, which are fair. Some regulation by South Pacolet River Reservoir (see preceding page). Some diurnal fluctuation caused by mill on North Pacolet River. About 9,024,000 gal per day (14.0 cfs) diverted above station for city of Spartanburg water supply during water year 1955.

Rating table, water year 1954-55 (gage height, in feet, and
discharge, in cubic feet per second)
(Shifting-control method used Apr. 14, 15)

0.0	30	1.5	446
.2	56	2.0	697
.5	111	5.0	2,740
1.0	248		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a42	55	175	235	134	162	129	175	167	120	229	86
2	a42	57	182	205	156	186	119	142	*182	118	217	112
3	a40	58	132	183	149	152	178	136	156	116	173	113
4	a38	59	127	164	152	149	154	136	152	120	146	100
5	a34	66	164	156	139	149	146	120	144	194	142	96
6	*a32	69	340	*154	608	152	199	109	139	223	139	96
7	32	64	254	149	1,940	149	232	111	141	190	137	*88
8	35	64	219	144	1,820	134	229	109	144	152	151	85
9	38	64	216	132	699	132	213	105	144	187	146	79
10	39	62	229	129	429	134	192	109	141	230	139	56
11	38	64	207	178	391	134	293	111	250	390	127	59
12	38	64	164	154	333	145	653	107	242	1,100	118	70
13	37	67	207	146	252	149	673	166	159	1,000	122	79
14	38	69	219	142	248	201	*1,360	224	134	757	120	76
15	38	72	213	139	248	216	1,090	287	120	454	315	72
16	37	*100	158	139	235	229	575	211	118	294	197	70
17	41	167	132	139	245	192	340	187	113	228	134	69
18	43	138	146	136	219	201	420	209	111	172	122	67
19	43	203	156	185	210	204	355	149	200	*163	107	66
20	43	213	144	196	186	186	272	144	178	410	96	67
21	45	164	132	152	204	178	245	707	169	446	100	66
22	45	142	149	165	201	242	245	2,330	152	247	96	64
23	48	118	146	170	210	232	226	2,320	151	159	92	66
24	48	132	156	178	*183	213	237	1,300	208	154	94	50
25	50	129	142	198	201	198	322	610	180	160	88	92
26	51	136	120	170	170	178	229	357	171	152	86	72
27	50	132	120	154	167	170	216	328	146	146	86	58
28	48	154	167	154	162	164	210	258	136	148	80	89
29	51	272	221	152	-	146	201	198	129	138	74	72
30	53	207	424	129	-	132	192	195	127	142	38	66
31	53	-	256	134	----	132	----	175	----	172	85	-
Total	1,309	3,361	5,797	4,962	10,291	5,341	10,145	11,825	4,684	8,682	4,046	2,290
Mean	42.2	112	187	160	368	172	338	381	156	280	131	76.3
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954: Max	6,070				32		241					
Water year 1954-55: Max	2,330				32		199					

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for station near Clifton, North Pacolet River at Fingerville, and records of powerplant operation on South Pacolet River.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 540 ft (from topographic map).

Average discharge.--15 years (1940-55), 466 cfs.

Extremes.--Maximum discharge during year, 4,020 cfs Feb. 6 (gage height, 5.35 ft); minimum daily, 39 cfs Oct. 10.

1939-55: 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 South Pacolet River Reservoir (see p. 214). City of Spartanburg diverts water above station from South Pacolet River Reservoir for municipal supply.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.7	34	1.5	306
.8	50	2.0	706
1.0	97	5.0	3,580
1.2	164		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	90	222	328	201	239	226	244	236	182	324	138
2	54	80	213	281	228	270	210	260	*220	160	276	171
3	50	81	189	296	222	240	287	218	218	155	258	207
4	60	84	176	242	223	248	310	216	225	176	197	136
5	62	92	170	240	250	234	249	208	166	320	193	176
6	*53	89	522	*226	1,470	206	443	184	224	306	178	156
7	40	86	359	218	2,260	276	704	176	228	248	164	*139
8	44	111	296	230	2,290	220	373	166	224	231	520	125
9	45	92	295	169	1,020	214	358	212	203	206	472	129
10	39	97	300	230	680	220	278	171	207	308	214	120
11	64	100	287	276	534	230	522	189	426	455	204	74
12	56	100	222	258	472	218	935	197	303	1,460	170	122
13	58	98	289	226	357	214	*884	316	268	1,240	176	115
14	54	93	326	214	368	515	2,130	390	204	1,010	140	116
15	55	*111	290	190	354	330	1,510	326	178	677	862	122
16	50	124	252	191	344	338	890	403	172	404	467	107
17	52	206	204	224	357	317	572	282	170	300	250	100
18	76	177	232	200	218	285	558	294	196	298	205	87
19	66	202	185	254	318	330	582	247	685	*225	171	122
20	58	259	240	301	248	264	403	225	382	756	154	100
21	72	190	201	244	318	316	354	872	239	582	142	106
22	64	198	203	287	298	682	384	3,160	233	422	188	97
23	55	172	216	223	287	408	316	2,700	218	260	144	97
24	71	156	218	298	*300	352	370	1,670	395	170	146	69
25	82	150	192	278	310	324	557	864	494	244	139	196
26	66	181	189	282	274	300	334	529	252	222	138	166
27	78	168	202	236	216	251	331	412	262	212	144	106
28	65	183	218	238	284	291	310	358	210	202	111	104
29	83	356	260	239	-	263	291	263	204	270	146	113
30	61	282	498	190	-----	236	277	290	190	188	122	108
31	76	---	380	235	-----	224	-----	251	-----	188	134	---
Total	1,859	4,408	8,046	7,524	14,781	9,053	15,949	16,293	7,932	12,077	7,149	3,724
Mean	60.0	147	260	243	528	292	532	526	261	390	231	124
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 7,740 Min 34 Mean 357 Cfsm - In. -

Water year 1954-55: Max 3,160 Min 39 Mean 298 Cfsm - In. -

* Discharge measurement made on this day.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 290.70 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--16 years (1939-55), 3,623 cfs.

Extremes.--Maximum discharge during year, 27,500 cfs Apr. 15 (gage height, 13.79 ft); minimum, 37 cfs Aug. 29; minimum daily, 50 cfs Oct. 10, 17.
1938-55: 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, that of Aug. 29, 1955; minimum daily, that of Oct. 10, 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.

Revisions (water years).--WSP 892: 1939(m), drainage area.

Rating table, water year 1954-55 (gage height, in feet, and
discharge, in cubic feet per second)
(Shifting-control method used July 14 to Sept. 30)

1.0	37	3.0	1,770
1.3	120	5.0	5,640
1.6	263	9.0	14,900
2.0	565	13.0	25,300
2.5	1,090		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	684	750	1,780	2,870	1,800	2,070	2,400	1,150	1,640	535	1,640	755
2	873	745	1,280	1,890	1,490	1,800	2,580	2,360	1,940	2,020	1,560	880
3	212	754	1,670	2,170	1,590	2,100	2,490	2,090	2,130	1,580	1,070	2,290
4	364	1,030	1,480	2,080	2,100	2,570	3,240	1,530	1,340	815	2,360	1,270
5	648	1,110	598	1,750	2,160	1,890	2,670	1,800	966	1,050	1,530	1,350
6	620	1,170	2,870	1,930	5,880	1,090	2,400	2,200	1,280	2,490	2,060	1,170
7	657	300	1,760	1,780	22,900	2,250	6,850	1,490	2,130	1,240	856	840
8	639	391	2,170	2,020	20,000	1,830	8,520	1,250	1,090	1,800	2,360	1,140
9	388	997	1,850	775	9,660	2,000	3,840	1,860	1,660	2,010	3,540	1,340
10	50	932	1,630	2,070	6,300	1,740	2,190	1,300	2,100	1,160	2,320	1,590
11	327	881	2,860	2,100	5,640	1,780	2,780	1,280	2,320	1,510	1,990	302
12	657	881	713	2,300	4,140	2,070	*3,740	1,220	1,720	4,950	2,030	590
13	686	1,390	1,150	2,490	2,300	1,680	4,760	2,370	3,060	8,500	1,960	894
14	794	480	2,550	1,740	3,360	3,180	11,700	2,700	1,920	5,420	1,260	706
15	667	775	1,870	2,260	2,710	4,240	24,200	4,150	1,210	4,040	1,850	745
16	203	1,310	1,870	1,110	2,800	2,940	10,900	4,340	*1,630	3,540	2,750	550
17	50	*1,350	1,500	1,390	2,550	2,170	6,520	3,740	1,800	1,660	3,240	1,520
18	374	1,340	2,270	1,630	2,530	2,400	5,530	2,770	1,430	1,670	1,990	234
19	657	1,340	748	2,480	2,610	2,490	3,990	3,640	1,090	1,710	1,670	330
20	686	1,690	1,270	2,660	1,510	2,160	2,890	2,390	2,240	2,900	2,090	669
21	686	450	1,870	2,740	2,320	2,480	3,270	1,960	2,470	5,420	574	726
22	677	1,480	1,350	2,760	1,910	2,320	3,540	7,530	1,800	3,640	973	728
23	414	1,740	1,650	1,150	2,020	2,940	2,710	13,000	2,160	2,670	*726	726
24	654	1,090	1,060	2,400	*2,310	3,740	2,110	11,800	2,760	1,410	922	735
25	416	1,080	849	2,270	2,070	3,640	3,930	7,620	2,110	1,730	958	172
26	686	1,120	1,100	2,170	2,890	3,440	3,640	5,640	1,590	896	1,590	904
27	686	1,660	1,660	2,050	1,350	2,940	2,250	4,040	1,810	1,510	1,570	932
28	677	1,170	1,220	1,910	2,350	2,320	2,920	3,140	2,040	1,780	552	862
29	755	1,190	1,840	2,550		2,670	2,760	1,780	2,340	2,080	563	873
30	1,150	2,020	1,910	990	-----	2,240	1,680	2,640	1,300	2,160	828	906
31	380	-----	3,640	1,480	-----	2,240	-----	2,040	-----	1,240	768	-----
Total	17,415	32,596	51,438	61,905	121,250	75,410	140,980	107,180	55,076	75,136	50,250	26,747
Mean	562	1,087	1,659	1,997	4,330	2,433	4,699	3,457	1,863	2,424	1,621	892
Cfsm	0.201	0.390	0.595	0.716	1.55	0.872	1.68	1.24	0.658	0.869	0.581	0.320
In.	0.23	0.44	0.69	0.83	1.61	1.01	1.87	1.43	0.73	1.00	0.67	0.36

Calendar year 1954: Max 46,700 Min 50 Mean 2,659 Cfsm 0.953 In. 12.93

Water year 1954-55: Max 24,200 Min 50 Mean 2,234 Cfsm 0.801 In. 10.87

Peak discharge (base, 25,000 cfs).--Feb. 8 (12:30 a.m.) 26,100 cfs (13.27 ft); Apr. 15 (5 a.m.) 27,500 cfs (13.79 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 1955.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 680 ft (from topographic map).

Average discharge.--5 years, 50.8 cfs.

Extremes.--Maximum discharge during year, 1,650 cfs May 22 (gage height, 8.68 ft); minimum, 7.0 cfs Oct. 6; minimum daily, 7.7 cfs Oct. 7.
1950-55: 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 fair except those for period of indefinite stage-discharge relation, which are poor.

Rating table, water year 1954-55, except period of indefinite stage-discharge relation (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 7 to Sept. 24)

0.1	7.2	2.0	172
.3	10	3.0	418
.6	18	4.0	619
.9	33	6.0	829
1.2	54	8.0	1,380
1.5	89		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.			
1	8.8	16	27	34	30	31	30	34	32	20	53	15			
2	8.4	17	24	35	32	30	32	32	30	18	32	20			
3	8.1	17	24	33	31	28	75	31	29	17	24	19			
4	8.1	17	23	31	29	31	44	30	27	17	22	e19			
5	8.1	21	30	30	28	31	39	29	26	19	20	e19			
6	8.1	20	68	*29	222	31	136	27	26	26	19	e19			
7	7.7	18	42	28	455	32	*478	26	36	26	24	*e19			
8	8.2	18	35	28	102	29	110	26	39	22	139	e18			
9	9.0	18	36	28	69	28	74	24	31	19	35	e18			
10	9.0	18	37	30	56	28	62	24	28	29	30	e17			
11	8.8	18	34	54	52	30	124	23	46	81	26	e17			
12	8.8	18	32	40	45	28	107	24	36	214	24	e16			
13	9.8	19	38	37	40	27	118	61	28	*101	22	e16			
14	9.0	19	43	34	40	30	436	93	26	62	20	e15			
15	10	19	37	32	39	30	136	120	24	48	27	e15			
16	11	*21	34	32	*38	29	95	52	24	37	30	e14			
17	9.6	26	32	31	38	28	76	48	22	33	26	13			
18	14	24	35	30	37	27	65	42	22	29	21	12			
19	12	28	32	36	34	28	57	37	28	26	20	11			
20	11	31	31	41	34	31	52	35	37	30	19	11			
21	12	26	29	38	32	30	50	202	29	28	19	9.7			
22	13	22	29	43	32	113	50	1,110	23	25	16	9.7			
23	13	22	28	43	32	61	45	226	26	23	14	9.4			
24	14	24	28	40	34	47	50	96	63	23	19	9.8			
25	13	22	27	37	37	42	55	75	37	24	*15	39			
26	13	21	26	35	34	40	42	*54	30	26	14	23			
27	14	21	26	34	32	37	39	47	25	21	14	20			
28	14	29	26	34	31	34	38	42	24	20	13	17			
29	16	49	31	32	-	35	36	38	22	18	13	17			
30	16	31	40	31	-	32	34	37	21	33	14	17			
31	15	-	35	30	-	31	-	34	-	26	14	-			
Total	339.5	670	1,037	1,070	1,715	1,087	2,783	2,779	897	1,141	798	494.6			
Mean	11.0	22.3	33.5	34.5	61.2	35.1	92.8	89.6	29.9	36.8	25.7	18.5			
Cfsm	0.250	0.507	0.761	0.784	1.39	0.798	2.11	2.04	0.680	0.856	0.584	0.375			
In.	0.29	0.57	0.88	0.90	1.45	0.92	2.35	2.35	0.76	0.96	0.67	0.42			
Calendar year 1954: Max	800			Min	7.0			Mean	44.5			Cfsm	1.01	In.	13.76
Water year 1954-55: Max	1,110			Min	7.7			Mean	40.6			Cfsm	0.923	In.	12.52

Peak discharge (base, 700 cfs).--May 22 (6:30 a.m.) 1,650 cfs (8.68 ft).

* Discharge measurement made on this day.

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

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 1955.

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.--17 years, 94.4 cfs.

Extremes.--Maximum discharge during year, 1,440 cfs Feb. 7 (gage height, 5.96 ft); minimum, 1 cfs Oct. 3; minimum daily, 5 cfs Sept. 24.

1938-55: 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; minimum daily, that of Sept. 24, 1955.

Remarks.--Records good. Some diurnal fluctuation caused by steam powerplant above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.9	4	2.0	102
1.0	7	2.5	192
1.2	16	3.0	300
1.5	37	4.0	594
1.8	72	5.0	990

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												
2	14	21	47	66	47	49	53	41	54	37	72	24
3	14	22	42	66	53	49	45	42	53	35	64	25
4	9	23	39	53	51	48	82	48	51	31	46	28
5	12	23	38	54	47	49	65	42	48	29	40	27
6	*12	28	42	53	45	51	*54	40	40	37	36	27
7	12	27	126	*49	178	51	90	37	42	107	35	28
8	11	26	81	47	947	53	392	36	47	97	39	28
9	12	23	60	45	528	48	257	35	47	104	71	24
10	14	26	57	45	188	46	116	34	46	71	38	22
11	14	26	64	47	125	46	88	33	43	59	35	22
12	14	26	53	78	107	48	109	33	63	130	30	22
13	14	26	48	83	104	47	178	32	67	208	29	21
14	14	25	59	53	85	47	133	48	47	*214	28	21
15	14	26	78	49	80	67	234	75	44	320	28	21
16	16	26	62	48	70	62	186	126	*43	123	36	20
17	14	*29	51	47	*68	55	120	86	41	85	38	19
18	14	43	47	45	68	54	97	83	40	71	32	18
19	13	37	54	45	64	52	86	64	41	62	28	17
20	15	44	57	58	59	54	78	52	52	55	27	17
21	16	49	49	71	58	57	72	47	46	80	28	17
22	17	44	47	60	55	53	66	194	54	68	27	15
23	17	36	46	67	54	95	66	890	48	55	26	14
24	17	38	44	76	57	76	60	834	49	51	25	10
25	18	45	44	67	59	62	59	307	57	48	24	5
26	17	38	42	59	66	58	76	*158	52	46	*26	13
27	18	35	41	55	57	59	62	108	85	55	26	11
28	18	35	41	54	53	55	60	94	52	44	25	38
29	18	44	42	52	52	52	53	76	45	43	23	16
30	20	81	56	49	-	51	51	69	42	40	21	12
31	21	63	107	46	-	49	47	84	40	69	21	9
32	21	-	80	47	-	48	-	58	-	53	20	-
Total	470	1,035	1,754	1,715	3,425	1,691	3,135	3,686	1,479	2,527	1,042	591
Mean	15.2	34.5	56.6	55.3	122	54.5	104	119	49.3	81.5	33.6	19.7
Cfsm	0.223	0.505	0.829	0.810	1.79	0.798	1.52	1.74	0.722	1.19	0.492	0.288
In.	0.26	0.56	0.96	0.93	1.86	0.92	1.70	2.01	0.81	1.37	0.57	0.32

Calendar year 1954: Max 2,140 Min 9 Mean 78.5 Cfsm 1.15 In. 15.64

Water year 1954-55: Max 947 Min 5 Mean 61.8 Cfsm 0.905 In. 12.27

Peak discharge (base, 1,000 cfs).--Feb. 7 (6:45 p.m.) 1,440 cfs (5.96 ft); May 22 (5 p.m.) 1,220 cfs (5.44 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 1955.

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.--21 years, 222 cfs.

Extremes.--Maximum discharge during year, 2,020 cfs May 23 (gage height, 3.34 ft); minimum, 16 cfs Oct. 3, 4; minimum daily, 16 cfs Oct. 3.

1934-55: 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, that of Oct. 3, 1954.

Remarks.--Records good except those for period of doubtful gage-height record, which are fair. Some regulation at low flow by powerplants above station.

Revisions (water years).--WSP 1333: 1936(m), 1940(m).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.6	14	1.5	256
.7	22	1.8	443
.8	34	2.0	604
1.0	71	3.0	1,560
1.2	129	4.0	3,120

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	36	128	150	110	137	120	76	102	78	118	39
2	19	40	95	140	120	123	127	133	123	65	96	47
3	16	42	92	130	70	128	184	91	106	44	81	48
4	*23	33	60	170	70	95	216	108	90	42	87	47
5	98	32	80	100	85	132	150	75	73	44	88	45
6	28	33	219	120	420	85	*246	125	88	67	92	48
7	27	28	278	120	1,080	141	655	65	83	160	71	48
8	26	28	131	120	1,330	126	820	69	141	113	234	50
9	26	63	160	60	729	115	473	123	61	135	130	64
10	24	64	99	110	333	118	197	82	54	92	92	54
11	28	58	155	170	224	120	273	65	71	182	84	45
12	38	50	101	190	209	121	386	93	68	429	113	42
13	32	50	70	150	165	92	349	89	116	466	81	45
14	28	47	178	120	199	156	792	228	88	451	74	45
15	26	*47	126	110	138	208	817	206	*66	373	140	45
16	26	54	150	75	*154	213	401	232	81	214	97	48
17	22	87	85	120	157	130	230	182	71	122	87	52
18	30	65	130	120	135	122	217	150	96	110	79	44
19	46	135	80	150	147	98	215	138	77	107	74	40
20	36	201	120	160	101	107	167	115	121	154	79	44
21	33	90	140	170	162	155	202	155	73	119	74	44
22	32	85	80	200	98	201	114	891	105	120	71	42
23	33	98	120	150	138	244	182	1,740	58	107	71	42
24	30	65	120	180	150	177	139	910	156	100	*69	42
25	30	111	65	160	140	153	185	608	85	100	71	67
26	62	62	60	150	138	126	189	266	85	100	67	67
27	42	50	90	*130	96	102	125	191	122	100	65	54
28	37	63	140	170	121	131	157	175	111	103	56	52
29	37	178	85	130	-	153	106	111	56	100	52	50
30	37	119	130	90	-	85	130	142	140	107	52	48
31	34	200	120	-	-	126	-	125	-	107	50	-
Total	1,031	2,094	3,767	4,215	7,019	4,217	8,564	7,739	2,767	4,611	2,695	1,448
Mean	33.3	69.8	122	136	251	136	285	250	92.2	149	86.9	48.3
Cfsm	0.206	0.431	0.753	0.840	1.55	0.840	1.76	1.54	0.569	0.920	0.536	0.298
In.	0.24	0.48	0.87	0.97	1.61	0.97	1.96	1.78	0.63	1.06	0.62	0.33

Calendar year 1954: Max 3,130 Min 16 Mean 167 Cfsm 1.03 In. 13.97

Water year 1954-55: Max 1,740 Min 16 Mean 137 Cfsm 0.846 In. 11.52

* Peak discharge (base, 1,800 cfs).--May 23 (7:15 a.m.), 2,020 cfs (3.34 ft).

* Discharge measurement made on this day.

Note.--Doubtful gage-height record Dec. 16 to Feb. 6; discharge computed from partial recorder graph, records for South Tyger River near Woodruff, and Tyger River near Woodruff.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 626.28 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--21 years, 152 cfs.

Extremes.--Maximum discharge during year, 2,190 cfs May 23 (gage height, 6.59 ft); minimum, 5.7 cfs Sept. 21, 22 (gage height, 0.63 ft); minimum daily, 6.5 cfs Sept. 22. 1934-55: Maximum discharge, 6,420 cfs Oct. 7, 1949 (gage height, 14.23 ft); minimum, 4.6 cfs June 5, 6, 1941 (gage height, 0.60 ft); minimum daily, 5.5 cfs June 6, 1941.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 19

Nov. 20 to Sept. 30

0.7	8.5	0.6	4.5	2.0	202
.8	14	.7	8.5	3.0	497
1.0	30	.8	14	5.0	1,350
1.2	54	1.0	30	6.0	1,860
1.6	123	1.5	97		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.6	17	277	60	45	254	90	15	268	70	96	47
2	9.6	49	45	.46	43	76	14	47	83	32	110	44
3	9.6	44	46	152	154	*43	17	313	70	36	191	14
4	9.6	45	27	43	161	40	123	44	33	29	65	14
5	*9.6	46	36	42	14	19	311	46	39	92	50	41
6	9.6	15	150	232	41	29	*86	44	88	49	20	42
7	9.6	19	115	*51	321	157	220	14	48	29	27	41
8	9.6	47	143	36	1,000	75	435	14	50	32	149	23
9	9.6	45	166	40	466	249	258	47	233	15	220	15
10	9.6	42	49	151	365	77	136	44	54	15	74	35
11	9.6	46	22	84	324	47	246	44	28	150	49	36
12	9.6	13	28	158	14	19	355	44	40	175	47	54
13	9.6	40	146	81	13	18	344	151	80	227	18	43
14	10	37	216	46	155	47	258	94	78	*261	16	43
15	11	60	81	19	302	226	356	56	102	237	49	44
16	30	51	48	28	76	193	123	169	174	17	104	45
17	26	87	51	115	69	72	65	283	118	16	78	13
18	53	113	19	46	13	48	251	152	18	88	51	13
19	45	85	34	98	28	35	241	57	40	47	49	13
20	46	35	95	95	37	43	174	76	50	48	16	13
21	43	34	45	239	116	148	45	74	112	127	15	9.2
22	12	*59	46	31	128	116	66	908	162	141	48	6.5
23	12	56	290	36	298	235	80	1,430	52	18	46	7.7
24	12	176	29	162	88	233	59	663	32	18	*57	7.7
25	12	64	29	71	86	74	84	*372	37	44	54	37
26	55	61	27	104	13	15	117	334	46	106	45	45
27	13	16	62	264	13	22	254	219	66	155	15	46
28	12	18	50	30	97	147	48	18	50	49	15	43
29	12	78	49	15	-	68	50	20	43	48	15	15
30	13	48	158	15	-	92	15	85	154	34	45	.12
31	18	-	225	46	-	143	-	131	-	38	41	-
Total	559.8	1,546	2,804	2,685	4,480	3,060	4,921	6,008	2,448	2,443	1,902	860.1
Mean	18.1	51.5	90.5	86.6	160	98.7	164	194	81.6	78.8	61.4	28.7
Cfsm	0.171	0.486	0.854	0.817	1.51	0.931	1.55	1.83	0.770	0.743	0.579	0.271
In.	0.20	0.54	0.98	0.94	1.57	1.07	1.73	2.11	0.86	0.86	0.67	0.30

Calendar year 1954: Max 1,770 Min 9.6 Mean 110 Cfsm 1.04 In. 14.01

Water year 1954-55: Max 1,430 Min 6.5 Mean 92.4 Cfsm 0.872 In. 11.83

Peak discharge (base, 1,400 cfs).--May 23 (1:15 a.m.) 2,190 cfs (6.59 ft).

* Discharge measurement made on this day.

SANTEE RIVER BASIN

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 5½ miles east of Woodruff, Spartanburg County.

Drainage area.--174 sq mi.

Records available.--March 1934 to September 1955.

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.--21 years, 225 cfs.

Extremes.--Maximum discharge during year, 1,670 cfs May 24 (gage height, 4.52 ft); minimum, 11 cfs Sept. 23 (gage height, 1.37 ft); minimum daily, 12 cfs Sept. 23.
1934-55: Maximum discharge, 9,510 cfs Apr. 6, 1936 (gage height, 9.78 ft), from rating curve extended above 7,900 cfs by velocity-area studies; minimum, that of Sept. 23, 1955; minimum daily, that of Sept. 23, 1955.

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

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.3	6	2.5	221
1.4	13	3.0	431
1.6	33	3.5	721
1.8	59	4.0	1,120
2.1	111	5.0	2,350

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	26	135	205	75	190	153	65	207	114	73	54
2	14	29	194	102	76	205	118	61	212	74	106	102
3	13	51	68	94	86	109	138	188	108	58	183	69
4	15	49	67	145	176	80	105	234	81	60	109	34
5	13	53	60	*74	147	78	244	87	70	80	71	32
6	13	53	167	117	535	65	*314	83	86	80	63	54
7	13	29	166	186	1,140	94	493	79	91	66	37	54
8	13	31	138	73	992	156	417	55	82	62	199	51
9	14	52	181	69	904	148	496	53	141	64	242	33
10	16	50	160	74	469	218	254	80	188	40	114	28
11	16	48	74	188	436	117	233	78	94	123	78	47
12	16	52	53	138	217	82	430	75	72	230	59	42
13	16	29	86	161	80	72	462	130	79	332	56	59
14	16	51	183	108	95	98	835	179	97	*316	32	51
15	16	*46	214	73	*266	148	532	113	108	293	73	51
16	15	68	91	55	234	230	379	122	169	188	102	50
17	34	73	78	62	122	211	177	240	149	51	98	51
18	33	120	79	122	108	115	203	299	101	65	75	22
19	52	98	53	107	62	91	322	119	65	81	60	21
20	47	88	79	140	77	89	292	105	98	69	59	21
21	49	58	90	157	83	108	182	112	130	100	32	19
22	46	51	71	228	135	161	115	682	178	154	31	18
23	22	74	152	82	245	217	136	1,160	125	87	55	12
24	21	136	199	102	233	251	120	1,260	100	39	*56	14
25	21	111	59	160	130	203	242	654	84	37	67	25
26	21	75	55	103	118	118	191	*408	80	78	60	52
27	51	74	56	195	59	65	228	392	125	151	56	54
28	22	53	79	200	58	83	223	116	104	105	29	56
29	22	100	76	104	—	156	100	72	118	81	28	55
30	22	90	96	53	—	106	68	85	165	64	53	26
31	23	—	180	50	—	153	—	147	—	56	50	—
Total	718	1,918	3,439	3,727	7,358	4,217	8,242	7,533	3,507	3,398	2,406	1,257
Mean	23.2	63.9	111	120	263	136	275	243	117	110	77.6	41.9
Cfsm	0.133	0.367	0.658	0.690	1.51	0.782	1.58	1.40	0.672	0.652	0.446	0.241
In.	0.15	0.41	0.74	0.80	1.57	0.90	1.76	1.61	0.75	0.73	0.51	0.27
Calendar year 1954:	Max	2,500		Min	13	Mean	154	Cfsm	0.885	In.	12.06	
Water year 1954-55:	Max	1,260		Min	12	Mean	131	Cfsm	0.753	In.	10.20	

Peak discharge (base, 1,800 cfs).--No peak above base.

* Discharge measurement made on this day.

Tyger River near Woodruff, S. C.

Location.--Lat 34°45'15", long 81°55'30", on left bank at upstream side of Nesbitts bridge on State Highway 49, 0.5 mile downstream from confluence of North Tyger and South Tyger Rivers and 6½ miles east of Woodruff, Spartanburg County.

Drainage area.--351 sq mi.

Records available.--October 1929 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 489.44 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--25 years (1930-55), 466 cfs.

Extremes.--Maximum discharge during year, 3,230 cfs May 23 (gage height, 5.16 ft); minimum, 29 cfs Oct. 3-5; minimum daily, 29 cfs Oct. 4.
1929-55: Maximum discharge, 19,200 cfs Aug. 14, 1940 (gage height, 13.27 ft), from rating curve extended above 11,000 cfs on basis of rating curves for North Tyger River near Moore and South Tyger River near Woodruff; minimum, that of Oct. 3-5, 1954; minimum daily, that of Oct. 4, 1954.

Flood on June 6, 1903, reached a stage of 20.4 ft, from floodmark set by local resident, at site 0.3 mile below gage; that of August 1928, 20.0 ft (present site); that of September 1929, 14.65 ft, from floodmarks (discharge, 19,600 cfs).

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

Revisions.--WSP 742: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 6-9, Apr. 6-9, 12-16, May 22-24, July 14, 15)

1.5	25	2.5	332
1.7	55	3.0	695
1.9	100	4.0	1,770
2.2	196	5.0	3,150

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	61	280	369	196	353	a260	147	305	219	188	100
2	34	68	285	245	202	328	a260	176	340	143	222	160
3	30	99	178	232	182	*242	a340	300	234	108	268	131
4	*29	94	128	328	256	206	316	348	164	110	209	86
5	123	94	160	173	241	212	434	176	160	128	148	81
6	48	93	410	251	975	154	499	222	160	142	160	104
7	43	58	465	*305	2,280	228	*1,170	152	196	236	108	100
8	41	59	302	212	2,350	312	1,260	120	222	177	440	94
9	41	102	361	134	1,710	251	1,050	151	211	203	408	96
10	41	128	303	175	a800	344	470	186	248	142	218	88
11	41	113	231	385	a700	271	510	143	171	344	165	95
12	58	107	164	337	a440	194	847	144	147	688	162	86
13	50	78	158	319	245	176	842	234	181	*928	146	101
14	48	100	383	242	296	243	1,650	440	192	793	108	96
15	45	95	359	192	*426	349	1,400	344	194	720	300	92
16	43	*127	256	134	415	514	793	358	245	414	219	94
17	58	147	164	187	294	365	418	448	224	185	192	105
18	59	190	216	252	250	232	420	482	198	180	156	70
19	108	216	141	264	214	212	556	278	168	201	134	66
20	88	318	207	305	178	196	485	205	208	237	132	63
21	86	164	246	334	238	249	389	255	225	213	106	63
22	82	119	148	439	264	355	254	1,560	279	288	98	61
23	55	193	280	237	390	480	317	3,000	205	216	121	52
24	50	202	334	270	396	a440	242	2,280	264	144	122	50
25	48	214	134	334	278	a360	452	*1,360	162	144	*129	81
26	82	156	122	258	274	a260	406	691	180	174	128	127
27	97	128	150	331	182	174	352	580	239	258	122	105
28	61	118	221	381	164	196	396	303	222	221	88	109
29	59	273	170	237	-	298	201	182	162	194	81	102
30	61	234	242	153	-----	a200	245	236	200	176	105	76
31	59	-----	392	172	-----	a280	-----	278	-----	171	100	---
Total	1,802	4,147	7,590	8,187	14,816	8,674	17,274	15,779	6,426	8,497	5,282	2,734
Mean	58.1	138	245	264	529	280	576	509	214	274	170	91.1
Cfsm	0.166	0.393	0.698	0.752	1.51	0.798	1.64	1.45	0.610	0.781	0.484	0.260
In.	0.19	0.44	0.80	0.87	1.57	0.92	1.83	1.67	0.68	0.90	0.58	0.29

Calendar year 1954: Max 5,650 Min 29 Mean 334 Cfsm 0.952 In. 12.94
Water year 1954-55: Max 3,000 Min 29 Mean 277 Cfsm 0.789 In. 10.72

Peak discharge (base, 3,000 cfs).--May 23 (2:45 p.m.) 3,230 cfs (5.16 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and records for North Tyger River near Moore and South Tyger River near Woodruff.

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 1955.

Gage--Water-stage recorder. Datum of gage is 393.91 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge--15 years, 193 cfs.

Extremes--Maximum discharge during year, 2,850 cfs Feb. 6 (gage height, 5.13 ft); minimum, 4.5 cfs Oct. 8 (gage height, 1.65 ft).

1940-55: 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, that of Oct. 8, 1954.

Remarks--Records good. Discharge includes some water diverted from South Pacolet River Reservoir (see p. 214) which is discharged into this stream after use.

Correction--Daily mean discharge for July 6, 1947, was 55 cfs, superseding erroneous figure published in WSP 1082.

Rating table, water year 1954-55 (gage height, in feet, and
discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 16)

1.5	3.7	2.4	124
1.6	6.3	2.7	264
1.7	10	3.0	458
1.8	15	3.5	850
1.9	23	4.0	1,300
2.0	34	5.0	2,670
2.2	68		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	22	49	66	73	88	78	76	68	42	62	28
2	7.8	23	42	99	78	88	80	70	64	40	96	42
3	7.0	26	38	88	78	86	216	70	62	38	79	46
4	5.8	30	37	70	73	86	214	68	58	37	55	42
5	5.8	31	53	64	68	83	*154	66	55	37	53	38
6	*6.3	33	135	62	1,240	90	198	64	53	42	.44	37
7	5.8	32	121	*60	2,430	108	955	62	53	51	43	37
8	5.0	30	91	57	1,990	93	1,020	60	58	44	43	33
9	5.5	30	64	55	648	86	522	57	80	37	90	30
10	7.0	30	62	58	306	86	248	55	58	36	59	27
11	8.2	30	57	146	236	102	235	53	76	72	44	27
12	7.4	31	49	147	186	99	325	53	86	*167	40	25
13	7.8	32	81	106	151	102	526	79	66	253	37	24
14	8.2	32	128	80	128	118	2,290	105	55	362	49	25
15	8.5	32	90	73	128	147	2,200	717	51	280	171	24
16	9.3	37	68	70	115	128	777	249	48	166	112	23
17	9.3	*46	58	66	*115	112	348	121	46	86	158	21
18	10	49	62	64	108	102	231	108	46	64	71	20
19	12	43	64	301	99	99	186	90	53	57	53	19
20	12	46	57	276	96	105	154	73	100	103	51	18
21	13	44	53	200	93	105	135	70	108	219	43	18
22	14	36	51	167	90	102	124	464	64	118	42	19
23	15	33	49	151	88	108	115	648	51	70	*58	19
24	16	38	49	135	93	105	105	*416	68	58	43	18
25	17	38	48	124	112	96	112	294	69	56	36	32
26	16	33	46	108	105	99	146	384	64	74	33	58
27	17	32	46	99	93	96	105	204	53	84	32	46
28	18	38	48	90	90	90	90	124	48	55	31	36
29	20	62	49	88	-----	86	86	99	46	55	34	33
30	21	85	55	80	-----	83	80	86	44	62	32	31
31	24	-----	55	76	-----	80	-----	76	-----	69	28	-----
Total	347.1	1,124	1,953	3,326	9,110	3,058	12,055	5,161	1,831	2,934	1,802	896
Mean	11.2	37.5	63.0	107	325	98.6	402	166	61.0	94.6	58.1	29.9
Cfsm	0.061	0.205	0.344	0.585	1.78	0.539	2.20	0.907	0.333	0.517	0.317	0.163
In.	0.07	0.23	0.40	0.67	1.85	0.62	2.46	1.05	0.37	0.60	0.37	0.18

Calendar year 1954: Max 3,620 Min 5.0 Mean 154 Cfsm 0.842 In. 11.41
Water year 1954-55: Max 2,430 Min 5.0 Mean 119 Cfsm 0.650 In. 8.87

Peak discharge (base, 2,500 cfs)--Feb. 6 (7:45 p.m.) 2,850 cfs (5.13 ft); Apr. 14 (1:45 p.m.) 2,590 cfs (4.97 ft).

* 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 30, 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 1955.

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.--26 years, 404 cfs.

Extremes.--Maximum discharge during year, 4,010 cfs Feb. 7 (gage height, 4.23 ft); minimum, 19 cfs Oct. 2, 3; minimum daily, 20 cfs Oct. 2-4, 7.

1929-55: 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 (revised), 8 cfs Oct. 5, 1941; minimum daily, that of Oct. 2-4, 7, 1954.

Revisions.--The figures of minimum 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)
782	1935	Aug. 17, 1935	33
802	1936	Oct. 20, 1935	29
1203	1951	Sept. 1, 1951	13
1233	1952	Oct. 15, 1951	22

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).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 6

Dec. 7 to Sept. 30

1.4	14	1.9	97	1.6	33	2.2	308
1.5	22	2.0	144	1.7	48	2.5	610
1.6	33	2.2	275	1.8	69	3.0	1,340
1.7	47	2.4	445	1.9	105	4.0	3,390
1.8	66			2.0	160		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	60	170	209	174	220	176	174	187	122	216	50
2	20	65	135	260	193	215	200	199	174	105	214	172
3	20	69	121	236	197	201	375	174	174	105	110	343
4	*20	54	94	195	167	194	479	167	167	104	85	138
5	21	78	110	*180	174	195	*315	167	144	115	129	112
6	22	78	441	172	1,190	209	295	167	154	116	98	100
7	20	75	369	214	3,510	235	860	164	154	122	95	99
8	22	66	244	108	2,350	226	705	160	160	138	286	91
9	22	81	194	160	1,130	194	463	138	167	122	305	93
10	25	82	187	167	579	174	349	149	160	122	130	57
11	25	82	180	309	468	201	397	138	174	123	114	93
12	26	82	160	276	398	208	565	144	201	*518	101	72
13	28	78	194	221	320	214	594	154	194	386	84	71
14	29	72	244	208	317	252	1,490	242	167	333	83	63
15	30	*69	252	187	*284	268	988	283	144	238	142	70
16	41	100	228	187	261	244	602	362	138	180	128	40
17	56	159	124	180	241	236	478	251	110	127	115	82
18	50	132	214	180	244	218	408	252	110	138	98	59
19	40	152	118	323	237	214	322	209	189	116	114	39
20	42	114	214	292	230	228	314	180	253	187	136	68
21	40	94	115	260	214	228	295	295	361	204	101	55
22	44	*144	208	252	186	236	284	1,020	221	137	101	49
23	28	116	87	260	204	413	274	1,460	180	121	*94	47
24	55	102	158	292	208	315	261	*881	298	107	91	33
25	43	94	124	263	240	237	388	858	211	124	80	62
26	53	102	140	216	216	244	303	461	167	140	76	65
27	37	97	135	215	214	225	250	324	180	192	73	121
28	52	155	112	187	228	229	226	260	138	149	73	81
29	58	256	139	201	-	202	221	221	132	444	69	72
30	32	213	159	194	-----	214	213	228	127	336	65	68
31	61	---	211	187	-----	167	-----	201	-----	174	47	---
Total	1,089	3,121	5,581	6,791	14,374	7,056	13,090	10,083	5,316	5,645	3,653	2,565
Mean	35.1	104	180	219	513	228	436	325	177	182	118	85.5
Cfsm	0.114	0.359	0.586	0.713	1.67	0.743	1.42	1.06	0.577	0.593	0.384	0.279
In.	0.13	0.38	0.68	0.82	1.74	0.86	1.58	1.22	0.64	0.68	0.44	0.31

Calendar year 1954: Max 4,870 Min 20 Mean 276 Cfsm 0.899 In. 12.22
 Water year 1954-55: Max 3,510 Min 20 Mean 215 Cfsm 0.700 In. 9.48

Peak discharge (base, 3,500 cfs).--Feb. 7 (10 a.m.) 4,010 cfs (4.23 ft).

* Discharge measurement made on this day.

SANTÉE RIVER BASIN

Broad River at Richtex, S. C.

Location.--Lat 34°11'05", long 81°11'48", on right bank 0.8 mile west of Richtex, Fairfield 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 1955.

Gage.--Water-stage recorder. Datum of gage is 184.84 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--27 years (1926-27, 1929-55), 5,725 cfs.

Extremes.--Maximum discharge during year, 43,200 cfs Apr. 15 (gage height, 11.36 ft); minimum daily, 232 cfs Oct. 18, from rating curve extended below 320 cfs.

1925-55: 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, from rating curve extended below 320 cfs.

Revisions.--Figures of maximum discharge for the water years 1929 and 1933 have been revised to 88,200 cfs Sept. 28, 1929 (gage height, 18.32 ft) and 101,000 cfs Oct. 18, 1932 (gage height, 19.72 ft), superseding figures published in WSP 682 and 742, respectively.

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 757: 1930(M). WSP 972: Drainage area. Revised figures of discharge, in cubic feet per second, for high-water period in the water year 1933, superseding those published in WSP 742, are given herewith:

Oct. 18, 1932..... 84,600

Oct. 19, 1932..... 81,200

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October 1932.....	84,600	905	10,500	2.16	2.49
Calendar year 1932.....	84,600	250	7,420	1.53	20.80
Water year 1932-33.....	84,600	778	7,300	1.51	20.41

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.2	186	2.0	2,940
.5	450	3.0	5,650
1.0	1,040	6.0	16,000
1.5	1,870	11.0	40,800

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	794	739	2,280	4,540	2,790	3,050	2,970	1,040	2,260	1,240	2,750	1,370
2	826	944	2,370	3,170	2,580	3,850	3,140	3,630	2,560	1,420	2,980	1,540
3	796	933	1,880	3,580	3,010	*2,870	1,910	3,050	3,010	2,120	2,250	2,910
4	640	989	2,280	3,050	2,280	3,250	4,850	2,530	3,050	1,450	2,860	2,100
5	514	1,690	1,000	2,840	3,030	3,150	4,650	1,840	1,160	1,940	2,350	2,550
6	504	1,030	2,650	2,590	4,370	2,460	3,490	2,630	2,140	2,230	2,350	1,730
7	780	1,520	3,190	2,450	25,700	2,520	5,790	3,060	2,010	2,400	1,750	1,610
8	726	666	*3,630	2,630	36,700	3,550	12,200	727	2,460	1,560	2,350	1,320
9	704	596	2,890	2,020	26,900	2,910	6,090	2,600	*1,780	2,390	4,210	1,810
10	572	1,340	2,760	2,120	16,700	2,830	6,030	2,500	2,500	1,520	4,200	2,300
11	f349	1,140	2,320	3,040	10,000	2,750	4,920	1,770	3,600	2,120	2,950	658
12	561	1,300	2,780	3,730	9,360	2,930	5,370	1,760	1,630	3,350	2,380	1,680
13	586	1,100	1,960	3,830	7,400	2,750	5,900	2,500	4,320	9,130	2,790	813
14	848	1,640	2,820	3,250	4,330	2,820	19,200	3,380	2,410	*10,000	1,510	*1,100
15	1,140	812	2,800	2,440	5,030	5,020	40,200	5,520	2,290	7,860	4,530	1,270
16	553	1,480	2,940	2,540	4,320	4,640	32,600	6,820	1,710	6,810	4,040	1,200
17	438	1,730	2,850	1,860	4,360	3,920	14,600	5,570	2,140	3,580	5,420	1,680
18	f232	1,740	2,390	2,370	3,730	3,660	8,680	4,780	2,760	3,060	3,140	868
19	576	1,870	2,000	3,640	3,850	3,870	7,400	3,760	800	2,190	3,230	1,060
20	717	1,920	1,980	*4,910	3,420	2,890	5,860	4,210	2,890	3,610	2,970	796
21	933	1,600	2,310	4,740	2,640	3,130	4,800	3,200	3,300	5,290	1,590	880
22	920	1,630	2,320	4,560	3,010	3,350	*4,780	4,800	3,020	6,520	1,920	978
23	789	2,130	1,910	3,570	3,190	3,570	4,880	17,100	2,430	4,310	1,970	1,020
24	590	2,050	2,130	3,190	3,030	4,900	2,620	19,300	2,890	2,510	1,370	1,820
25	798	1,210	1,230	3,600	3,700	4,840	4,410	14,500	3,950	2,580	1,320	684
26	700	1,870	1,820	3,710	3,580	4,400	4,880	10,800	1,620	2,110	1,630	f482
27	954	1,650	1,810	3,290	3,080	2,610	4,660	7,700	3,170	1,190	2,290	915
28	786	1,910	2,310	3,160	3,070	3,040	3,520	5,980	1,900	2,880	844	1,510
29	1,090	1,590	1,680	3,220	-	3,520	4,010	3,230	3,010	2,740	1,670	1,470
30	835	2,630	2,340	3,170	-----	2,580	3,420	3,950	2,230	3,570	870	1,280
31	1,210	-	3,110	1,700	-----	2,880	-----	2,960	-----	2,070	1,220	-
Total	22,461	43,449	72,940	98,510	204,960	103,610	239,880	156,997	75,100	105,550	77,704	41,094
Mean	725	1,448	2,353	3,178	7,320	3,342	7,996	5,064	2,503	3,405	2,507	1,370
Cfsm	0.149	0.299	0.485	0.655	1.51	0.689	1.65	1.04	0.516	0.702	0.517	0.282
In.	0.17	0.33	0.56	0.76	1.57	0.79	1.84	1.20	0.58	0.81	0.60	0.31
Calendar year 1954: Max	60,500	Min	232	Mean	4,192	Cfsm	0.864	In.	11.73			
Water year 1954-55: Max	40,200	Min	232	Mean	3,403	Cfsm	0.702	In.	9.52			

Peak discharge (base, 35,000 cfs).--Feb. 8 (3 p.m.) 38,400 cfs (10.55 ft); Apr. 15 (6:30 p.m.) 43,200 cfs (11.36 ft).

* Discharge measurement made on this day.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

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 1955. Prior to October 1948, published as "near West Greenville."

Gage.--Water-stage recorder. Altitude of gage is 810 ft (from topographic map).

Average discharge.--13 years, 599 cfs.

Extremes.--Maximum discharge during year, 3,700 cfs Feb. 7 (gage height, 7.85 ft); minimum, 54 cfs Oct. 17 (gage height, 1.89 ft); minimum daily, 70 cfs Oct. 16.

1942-55: 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, 29 cfs (revised) July 21, 1946 (gage height, 1.67 ft); minimum daily, that of Oct. 16, 1954.

Revisions.--The figures of minimum 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)
1032	1944	Sept. 6, 1944	31	1.69
1052	1946	July 21, 1946	29	1.67
1082	1947	July 6, 1947	39	1.76
1112	1948	Nov. 24, 1947, Sept. 5, 1948	51	1.87
1142	1949	Sept. 25, 1949	36	1.74

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.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1954, superseding those published in WSP 1333, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1954		1954-Con.		1954-Con.		1954-Con.	
Aug. 1	191	Aug. 17	185	Sept. 1	168	Sept. 16	107
2	182	18	178	2	174	17	107
3	182	19	174	3	145	18	107
4	182	20	176	4	119	19	111
5	190	21	152	5	119	20	112
6	188	22	166	6	112	21	107
7	188	23	171	7	117	22	105
8	188	24	168	8	106	23	107
9	185	25	172	9	101	24	109
10	188	26	185	10	105	25	107
11	203	27	178	11	107	26	96
13	225	28	190	12	105	27	107
14	219	29	185	13	105	28	107
15	220	30	141	14	105	29	105
16	193	31	124	15	107	30	105

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 1954.....	5,733	264	124	185	0.631	0.73
September.....	3,394	174	96	113	.386	.43
Water year 1953-54.....	-	6,920	96	498	1.70	23.06

Saluda River near Greenville, S. C.--Continued

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.0	69	3.5	641
2.2	105	4.0	960
2.5	172	5.0	1,810
3.0	382	7.0	3,220

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	97	238	632	282	406	309	420	488	327	278	160
2	107	99	240	478	251	377	309	377	444	300	359	162
3	107	99	204	439	276	377	498	528	396	255	408	265
4	99	94	154	*358	314	373	468	294	396	255	373	291
5	90	103	203	368	291	373	406	*212	396	273	296	255
6	94	74	494	345	770	327	450	350	396	416	198	220
7	92	94	377	309	3,130	342	810	373	391	368	204	250
8	86	105	342	314	2,160	363	920	327	368	300	318	204
9	74	102	300	304	1,260	354	570	300	364	280	354	201
10	78	105	304	296	660	309	473	304	396	432	*283	182
11	86	103	304	332	704	304	500	304	498	708	198	164
12	92	105	266	377	783	336	1,190	309	648	406	201	164
13	93	117	277	345	747	373	1,090	332	449	*422	201	182
14	90	119	345	314	600	368	1,270	700	401	522	201	206
15	94	138	382	314	*382	486	1,470	686	364	406	250	215
16	70	176	315	314	382	382	853	772	322	360	300	164
17	84	326	233	286	377	377	820	731	322	342	273	180
18	93	225	247	238	382	373	708	754	327	319	248	157
19	94	164	405	286	382	373	646	618	327	373	198	147
20	95	264	359	314	382	373	604	470	373	341	201	136
21	96	276	309	314	348	377	473	714	473	387	204	141
22	93	250	304	350	318	382	614	2,300	*401	377	204	129
23	72	220	205	368	373	687	478	1,930	406	304	204	117
24	84	160	160	373	588	466	478	1,770	401	233	204	117
25	88	160	197	350	415	458	604	1,230	401	277	201	117
26	92	164	238	314	439	462	628	783	473	350	201	117
27	95	197	233	314	420	377	439	782	468	426	198	125
28	92	233	225	309	377	359	424	646	396	359	194	*125
29	95	352	382	264	-	359	444	583	377	345	172	125
30	71	358	1,380	233	-----	377	410	449	322	309	160	125
31	83	-	1,400	242	-----	354	-----	488	-----	273	160	-
Total	2,784	5,079	11,022	10,394	17,793	12,004	19,356	20,834	12,184	11,025	7,440	5,123
Mean	89.8	169	356	335	635	387	645	672	406	356	240	171
Cfsm	0.306	0.577	1.22	1.14	2.17	1.32	2.20	2.29	1.39	1.22	0.819	0.584
In.	0.35	0.64	1.41	1.31	2.26	1.52	2.46	2.64	1.55	1.41	0.94	0.65

Calendar year 1954: Max 6,920 Min 70 Mean 454 Cfsm 1.55 In. 21.04
 Water year 1954-55: Max 3,130 Min 70 Mean 370 Cfsm 1.26 In. 17.14

Peak discharge (base, 2,800 cfs),--Feb. 7 (9 a.m.) 3,700 cfs (7.85 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 1955.

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.--26 years, 769 cfs.

Extremes.--Maximum discharge during year, 4,920 cfs Feb. 7 (gage height, 5.28 ft); minimum, 8 cfs Oct. 25 (gage height, 0.65 ft); minimum daily, 57 cfs Oct. 17.
1929-55: Maximum discharge, 13,600 cfs Oct. 7, 1949 (gage height, 10.53 ft); minimum, 6 cfs Oct. 8, 1951 (gage height, 0.65 ft); minimum daily, that of 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.

Revisions.--WSP 872: Drainage area.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 31, July 12 to Sept. 30				Jan. 1 to July 11			
0.9	46	2.0	565	1.5	250	3.0	1,480
1.1	100	2.5	994	2.0	546	4.0	2,860
1.3	173	3.0	1,550	2.5	960	5.0	4,440
1.5	265	4.0	2,890				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134	159	326	992	305	471	407	513	568	366	376	204
2	124	127	317	682	378	479	401	505	568	362	383	208
3	163	134	317	590	291	458	734	540	449	311	471	226
4	114	142	227	*464	368	458	730	*500	444	316	459	358
5	117	157	277	439	342	462	598	275	445	368	403	339
6	103	150	701	432	1,020	426	577	390	476	350	288	278
7	124	206	562	374	4,040	434	984	438	458	491	296	352
8	124	144	471	356	3,640	445	1,220	413	464	413	395	284
9	117	*154	400	366	1,780	436	770	399	401	366	*434	255
10	101	150	415	372	1,180	401	652	378	458	418	409	241
11	81	150	391	464	833	401	741	368	514	954	296	222
12	117	154	379	464	862	373	1,140	378	720	816	260	205
13	120	154	392	451	886	426	1,480	419	624	587	255	204
14	117	164	446	378	801	544	1,600	724	484	618	257	227
15	120	167	478	376	*530	541	1,780	762	458	582	304	274
16	117	245	459	354	491	530	1,340	936	375	498	417	224
17	57	351	333	401	491	471	1,020	846	378	405	294	196
18	138	417	359	310	491	464	912	885	375	389	368	154
19	117	235	425	378	458	462	816	748	394	478	265	220
20	120	297	489	407	464	436	775	568	430	421	255	165
21	124	373	399	384	477	492	648	716	*500	421	252	169
22	120	328	373	410	413	634	718	2,200	482	484	274	165
23	124	339	362	451	413	820	609	2,340	518	416	255	158
24	88	269	260	451	610	*600	620	2,050	464	331	255	138
25	118	262	241	439	609	576	774	1,570	465	306	251	175
26	117	209	291	386	482	598	746	1,180	458	397	241	168
27	120	241	328	378	532	497	636	888	620	470	241	*150
28	131	349	301	378	484	504	505	764	464	622	247	159
29	127	415	358	367	-	426	568	725	458	459	227	158
30	127	538	1,060	280	-----	477	478	541	390	415	204	157
31	65	---	1,630	322	-----	464	-----	590	-----	351	199	---
Total	3,586	7,080	13,747	13,296	23,691	15,206	24,977	24,549	14,292	14,181	9,531	6,433
Mean	116	236	443	429	846	491	833	792	476	457	307	214
Cfsm	0.286	0.583	1.09	1.06	2.09	1.21	2.06	1.36	1.18	1.13	0.758	0.528
In.	0.33	0.65	1.26	1.22	2.18	1.40	2.30	2.26	1.32	1.30	0.87	0.59
Calendar year 1954: Max	8,370			Min 57		Mean 585		Cfsm 1.44		In. 19.59		
Water year 1954-55: Max	4,040			Min 57		Mean 467		Cfsm 1.15		In. 15.68		

Peak discharge (base, 3,000 cfs).--Feb. 7 (6:15 p.m.) 4,920 cfs (5.28 ft); May 22 (6 p.m.) 3,080 cfs (4.15 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 1955.

Gage.--Water-stage recorder. Altitude of gage is 448 ft (by barometer).

Average discharge.--16 years, 946 cfs.

Extremes.--Maximum discharge during year, 7,090 cfs Feb. 7 or 8 (gage height, 12.38 ft), from rating curve extended above 6,300 cfs as explained below; minimum, 11 cfs July 9; minimum daily, 36 cfs Oct. 10.

1939-55: 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 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 892: 1939.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 8-22, Mar. 23-25)

0.2	34	4.0	1,640
.5	111	7.0	3,360
1.0	273	10.0	5,270
2.0	667	12.0	6,760

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	178	114	632	1,860	340	732	480	483	688	412	305	273
2	178	169	408	1,530	700	549	460	814	688	349	436	280
3	48	163	280	*886	550	561	480	658	507	393	462	287
4	177	111	252	688	420	540	1,000	*516	491	316	470	284
5	185	160	318	688	340	959	600	478	447	442	484	280
6	175	172	1,290	456	1,600	643	600	502	420	487	480	284
7	78	178	688	273	6,000	732	1,500	436	433	428	426	334
8	160	194	667	584	6,000	710	1,400	447	513	612	298	250
9	220	182	688	572	2,600	528	1,400	455	688	276	*336	295
10	36	*191	404	568	1,200	540	850	487	556	532	685	280
11	220	191	298	753	900	540	1,200	458	508	746	593	287
12	200	218	273	753	800	540	1,400	440	495	1,220	327	277
13	180	201	716	554	800	517	1,500	524	828	1,200	262	273
14	170	175	730	500	*950	591	1,700	495	813	891	270	316
15	110	204	305	550	958	889	2,200	629	511	722	300	313
16	160	259	608	440	451	694	1,900	1,310	463	603	308	284
17	70	430	667	500	715	681	1,500	1,110	455	455	309	284
18	190	536	470	550	582	634	1,640	652	510	382	331	280
19	180	532	266	750	495	580	1,070	1,040	362	379	731	277
20	120	284	484	600	471	584	738	930	356	426	488	280
21	190	284	646	500	600	629	1,040	684	*495	576	367	295
22	156	258	593	500	690	732	850	1,090	460	488	305	252
23	163	384	277	420	619	907	764	2,970	470	584	298	199
24	46	624	302	700	565	*794	801	2,560	730	440	273	191
25	152	334	295	700	987	635	922	2,430	735	306	305	82
26	172	277	314	550	734	786	790	1,860	455	256	291	269
27	160	242	710	550	513	550	1,020	1,440	475	345	277	*245
28	166	364	480	500	801	480	792	850	544	1,580	247	130
29	160	805	298	550	500	556	556	770	646	1,040	258	224
30	102	302	470	380	-----	650	483	704	463	743	273	238
31	119	-----	1,540	380	-----	650	-----	688	-----	510	262	-----
Total	4,621	8,538	16,369	19,885	32,381	20,157	31,636	28,911	16,203	18,139	11,457	7,873
Mean	149	285	528	641	1,156	650	1,055	933	540	585	370	262
Cfs/m	0.262	0.501	0.928	1.13	2.03	1.14	1.85	1.64	0.948	1.03	0.650	0.460
In.	0.30	0.56	1.07	1.30	2.11	1.31	2.06	1.89	1.06	1.19	0.76	0.51

Calendar year 1954: Max 8,880 Min 36 Mean 746 Cfs/m 1.31 In. 17.79

Water year 1954-55: Max 6,000 Min 36 Mean 592 Cfs/m 1.04 In. 14.11

Peak discharge (base, 4,000 cfs).--Feb. 7 or 8 (time unknown) 7,090 cfs (12.38 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 8-21, Jan. 14 to Feb. 14, Mar. 27 to Apr. 17; discharge estimated from recorded range in stage, records for stations near Pelzer and Chappells, and records of powerplant operation at Ware Shoals.

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 Conestee, and 3.9 miles southeast of county courthouse in Greenville, Greenville County.

Drainage area.--48.6 sq mi.

Records available.--November 1941 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 800 ft (from topographic map).

Average discharge.--13 years (1942-55), 78.5 cfs.

Extremes.--Maximum discharge during year, 1,250 cfs Feb. 6 (gage height, 3.86 ft); minimum, 7 cfs Oct. 4.

1941-55: 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 except those for periods of doubtful or no gage-height record, which are fair.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 4

Nov. 5 to Sept. 30

0.6	7	0.6	8	1.5	242
.7	20	.7	22	2.0	426
.8	37	.8	40	3.0	845
		1.0	85		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	15	22	63	33	38	36	33	35	21	d56	18
2	12	15	19	55	40	36	114	31	27	27	d40	33
3	10	14	21	44	33	35	151	29	26	21	d33	29
4	8	15	22	*38	33	36	61	26	33	19	d29	21
5	12	24	27	35	38	46	53	*26	27	61	d26	18
6	19	15	88	33	598	40	180	26	27	85	d24	67
7	15	22	53	31	566	38	175	33	39	39	d33	30
8	14	15	35	38	245	33	95	27	27	26	d28	19
9	12	*14	52	35	119	27	66	26	26	31	d29	21
10	12	15	40	57	75	38	55	26	26	121	*27	27
11	11	15	33	83	73	33	157	26	79	186	19	18
12	25	15	31	42	68	40	98	26	44	100	18	24
13	18	15	36	55	46	125	75	31	84	26	16	16
14	15	24	59	35	*48	98	168	72	29	46	19	15
15	12	16	48	40	46	55	118	68	26	38	30	15
16	11	64	38	33	44	48	82	78	21	40	21	15
17	15	31	35	29	50	44	66	62	21	33	18	21
18	11	21	53	35	42	42	59	40	32	a26	18	16
19	11	21	38	71	46	54	55	36	80	a26	39	15
20	12	34	33	50	38	44	50	35	38	a35	36	14
21	12	21	33	44	36	44	65	362	42	a63	26	14
22	12	18	33	74	40	158	56	468	*27	a40	22	15
23	12	39	31	53	44	68	53	325	39	a33	16	15
24	17	21	35	48	59	*55	57	206	27	a32	18	22
25	12	15	29	42	48	48	48	134	40	a44	15	78
26	11	14	26	40	46	51	44	68	31	a48	21	22
27	10	24	26	38	38	40	48	55	27	d38	26	16
28	12	62	27	36	36	38	38	53	27	d142	15	*16
29	18	54	54	42	-	40	35	42	22	d53	16	16
30	14	29	73	35	-	38	38	38	22	d36	24	30
31	19		55	33	-	36	-	38	-	d56	18	
Total	414	717	1,322	1,369	2,637	1,487	2,444	2,590	998	1,650	786	696
Mean	13.4	23.9	42.6	44.2	94.2	48.0	81.5	83.5	33.3	53.2	25.4	23.2
Cfsm	0.276	0.492	0.877	0.909	1.94	0.988	1.68	1.72	0.685	1.09	0.523	0.477
In.	0.32	0.55	1.21	1.05	2.02	1.14	1.87	1.98	0.76	1.26	0.60	0.53

Calendar year 1954: Max 1,180 Min 8 Mean 55.8 Cfsm 1.15 In. 15.59
 Water year 1954-55: Max 598 Min 8 Mean 46.9 Cfsm 0.965 In. 13.09

Peak discharge (base, 1,000 cfs).--Feb. 6 (5:45 p.m.) 1,250 cfs (3.86 ft); May 21 (5:45 p.m.) 1,030 cfs (3.55 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and weather records.

d Doubtful gage-height record; discharge computed from reconstructed graph based on observer's inspections and weather records.

Reedy River near Ware Shoals, S. C.

Location.--Lat 34°27', long 82°12', on left bank $1\frac{1}{2}$ 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 1955.

Gage.--Water-stage recorder. Altitude of gage is 489 ft (by barometer).

Average discharge.--16 years, 284 cfs.

Extremes.--Maximum discharge during year, 2,960 cfs Feb. 8 (gage height, 5.02 ft); minimum, 17 cfs Mar. 5; minimum gage height, 0.78 ft May 1, 2, 4, 5; minimum daily discharge, 18 cfs Mar. 5, May 5.

1939-55: 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, 10 cfs Oct. 14, 18, Dec. 31, 1950, Mar. 4, 1951.

Remarks.--Records fair prior to July 26, good thereafter. 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. WSP 922: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.8	16	2.2	332
1.0	30	2.5	516
1.2	52	3.0	960
1.6	120	5.0	2,960
1.9	202		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	39	169	288	152	141	243	105	185	60	158	63
2	28	106	202	266	38	147	31	193	140	36	156	36
3	56	70	206	*283	178	249	260	262	88	37	192	68
4	33	40	123	283	244	142	468	*82	31	53	156	131
5	30	40	42	118	102	18	418	18	40	110	161	158
6	81	39	304	35	746	194	330	21	177	260	50	147
7	64	70	488	199	2,530	274	363	25	167	320	127	87
8	30	47	290	213	2,280	288	635	31	147	280	156	28
9	29	46	150	45	974	277	501	33	147	36	*258	37
10	29	106	114	44	529	274	376	239	147	36	144	39
11	28	78	45	243	430	169	343	158	63	180	217	46
12	28	109	223	303	393	25	345	34	35	300	131	126
13	28	93	298	293	172	228	433	227	120	340	40	156
14	80	45	298	288	*206	288	561	118	150	360	54	150
15	61	45	128	123	293	288	920	42	168	360	175	90
16	35	112	41	38	343	288	611	274	166	260	169	37
17	35	69	160	249	322	288	446	214	153	36	145	40
18	35	108	293	293	274	165	376	276	98	110	156	42
19	35	135	124	126	262	23	343	214	44	150	156	125
20	35	140	203	197	146	218	317	172	122	150	156	147
21	35	72	118	262	25	288	303	179	*153	220	153	138
22	35	45	38	266	65	288	293	282	156	300	153	54
23	35	104	206	266	69	*293	288	893	156	130	147	24
24	63	133	220	266	108	308	274	630	150	36	145	31
25	42	138	38	262	194	264	288	468	143	130	59	33
26	42	133	37	101	90	293	288	398	153	162	30	105
27	42	74	36	32	182	293	283	317	147	169	40	*138
28	41	40	204	190	253	293	105	279	147	179	40	59
29	41	119	130	253	-	171	197	162	150	526	122	29
30	40	145	37	115	-----	23	270	29	140	341	145	30
31	39	-	201	171	-----	223	-----	209	-----	203	128	-
Total	1,263	2,540	5,166	6,111	11,602	6,721	10,909	6,584	3,883	5,869	4,119	2,394
Mean	40.7	84.7	167	197	414	217	364	212	129	189	133	79.8
Cfsm	0.179	0.371	0.732	0.864	1.82	0.952	1.60	0.350	0.566	0.829	0.583	0.350
In.	0.21	0.41	0.84	1.00	1.90	1.10	1.78	1.07	0.63	0.96	0.67	0.39
Calendar year 1954:	Max	3,870		Min	14	Mean	221	Cfsm	0.969	In.	13.14	
Water year 1954-55:	Max	2,530		Min	18	Mean	184	Cfsm	0.807	In.	10.96	

Peak discharge (base 2,200 cfs).--Feb. 8 (12:45 a.m.) 2,960 cfs (5.02 ft).

* Discharge measurement made on this day.

Note.--No gage-height record July 5-25; discharge estimated on basis of weather records and power-plant records at Boyd's mill.

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 1955.

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, 439.82 ft Feb. 9; minimum, 433.70 ft Jan. 1.

1940-55: Maximum elevation, 442.02 ft Mar. 5, 1952; minimum elevation since normal reservoir level was first reached, 424.42 ft Oct. 16, 1947.

Remarks.--Lake is formed by earth dam; storage began in May 1940; dam completed in 1940. Usable capacity, about 8,330,000,000 cu ft between elevations 420.0 ft (limit of draw-down) and 441.5 ft (top of 12-foot flashboards on top of spillway gates) 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 above mean sea level. Water is used for generation of power.

Revisions.--WSP 972: Drainage area.

Correction.--Corrected figure of daily mean elevation, in feet, for the water year 1942, superseding figure published in WSP 952, is given herewith:

Dec. 9, 1941..... 431.80

Mean elevation, in feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35.20	34.44	34.11	33.78	34.80	35.48	35.99	37.87	38.11	36.99	37.88	35.65
2	35.13	34.50	34.13	34.09	34.79	35.32	36.04	37.89	38.08	36.85	37.80	35.56
3	35.10	34.48	34.08	34.37	34.77	35.14	36.02	37.89	37.95	36.87	37.70	35.44
4	35.09	34.49	34.05	34.46	34.76	34.97	36.16	37.91	37.84	36.92	37.59	35.32
5	35.07	34.57	33.93	34.53	34.73	34.88	36.40	37.84	37.80	37.11	37.48	35.31
6	35.06	34.53	34.12	34.56	35.13	34.90	36.59	37.78	37.74	37.24	37.38	35.28
7	35.03	34.49	34.21	34.52	37.42	34.96	36.71	37.60	37.59	37.34	37.24	35.21
8	35.00	34.50	34.28	34.48	38.99	34.81	36.75	37.50	37.50	37.32	37.21	35.17
9	34.92	34.52	34.31	34.43	39.68	34.68	36.81	37.44	37.40	37.19	37.11	35.09
10	34.98	34.56	34.34	34.49	39.73	34.49	36.84	37.34	37.29	37.02	37.06	35.01
11	34.87	34.60	34.30	34.63	39.65	34.34	39.93	37.33	37.24	37.08	37.01	34.87
12	34.85	34.66	34.14	34.74	39.39	34.26	37.08	37.26	37.21	37.25	36.95	34.85
13	34.83	34.64	34.22	34.87	39.24	34.24	37.28	37.28	37.21	37.57	36.82	34.84
14	34.83	34.62	34.27	34.83	39.22	34.28	37.94	37.32	37.27	37.83	36.69	34.87
15	34.90	34.66	34.29	34.81	38.91	34.36	38.25	37.33	37.26	37.90	36.88	34.88
16	34.77	34.69	34.18	34.71	38.48	34.49	38.34	37.39	37.24	37.90	36.91	34.88
17	34.70	34.75	34.16	34.72	38.06	34.57	38.51	37.49	37.20	37.87	36.85	34.82
18	34.67	34.80	34.24	34.66	37.62	34.70	38.66	37.52	37.18	37.84	36.74	34.70
19	34.66	34.89	34.13	34.81	37.19	34.75	38.58	37.56	37.15	37.78	36.69	34.68
20	34.64	34.90	34.10	34.91	36.98	34.73	38.40	37.61	37.17	37.78	36.70	34.67
21	34.62	34.90	34.03	34.95	36.93	34.81	38.20	37.65	37.13	37.79	36.63	34.67
22	34.60	34.91	34.00	34.99	36.59	34.96	38.05	37.84	37.10	37.78	36.61	34.66
23	34.56	34.85	33.94	34.99	36.29	35.03	37.89	38.23	37.09	37.76	36.56	34.62
24	34.51	34.80	34.02	35.07	35.97	35.19	37.85	38.39	37.06	37.72	36.46	34.50
25	34.50	34.66	34.01	35.07	35.67	35.31	37.96	38.65	37.10	37.70	36.34	34.38
26	34.50	34.47	33.95	35.03	35.52	35.47	37.99	38.63	37.11	37.65	36.20	34.33
27	34.51	34.23	34.03	35.01	35.50	35.47	38.01	38.41	37.09	37.60	36.09	34.31
28	34.52	34.27	34.12	34.97	35.55	35.52	38.09	38.27	37.04	37.62	35.93	34.31
29	34.59	34.34	34.11	34.94	-	35.60	38.10	38.33	37.03	37.76	35.90	34.30
30	34.51	34.21	34.05	34.91	-	35.72	37.98	38.37	37.02	37.85	35.81	34.26
31	34.47	-	33.81	34.91	-	35.85	-	38.19	-	37.85	35.73	-

Note.--Add 400 ft to obtain elevation above mean sea level.

Monthly elevation and contents, water year October 1954 to September 1955

Date	Elevation (feet) [†]	Contents (billions of cubic feet)	Change in contents during month (equivalent in cubic feet per second)
Sept. 30.....	435.21	5.47	-
Oct. 31.....	434.48	5.15	-119
Nov. 30.....	434.14	5.00	-58
Dec. 31.....	433.75	4.83	-63
Calendar year 1954.....	-	-	+3
Jan. 31.....	434.83	5.30	+175
Feb. 28.....	435.51	5.60	+124
Mar. 31.....	435.91	5.78	+67
Apr. 30.....	437.90	6.68	+347
May 31.....	438.13	6.78	+37
June 30.....	437.01	6.28	-193
July 31.....	437.90	6.68	+149
Aug. 31.....	435.69	5.68	-373
Sept. 30.....	434.26	5.05	-243
Water year 1954-55.....	-	-	-13

[†] Elevation at 12 p.m.

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 1955. 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.--28 years, 1,928 cfs.

Extremes.--Maximum discharge during year, 6,460 cfs Apr. 15 (gage height, 13.78 ft); minimum, 15 cfs Oct. 11; minimum daily, 38 cfs July 4.
1927-55: 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 6-24, Mar. 9 to Apr. 9)

-0.5	34	4.0	1,260
0.0	71	5.0	2,120
.5	156	9.0	3,640
1.0	268	14.0	6,620
2.0	542		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	301	231	937	2,290	1,180	1,880	360	972	1,290	817	914	892
2	622	86	848	1,300	960	1,880	727	918	1,290	547	1,290	856
3	142	98	886	704	886	1,920	1,150	*967	1,390	824	1,280	929
4	267	95	804	956	947	1,940	507	929	956	36	1,280	890
5	236	72	1,190	864	1,090	1,220	408	1,060	834	262	1,220	444
6	170	588	618	836	1,610	1,100	470	1,020	1,160	343	1,220	664
7	181	288	1,030	814	3,060	1,620	1,530	1,520	1,380	264	1,050	802
8	138	*193	974	1,160	4,360	2,000	1,900	891	1,240	1,190	*818	636
9	549	89	886	1,110	3,800	1,870	1,690	1,070	1,260	1,610	1,060	636
10	166	74	854	690	*4,080	1,960	1,210	1,010	1,440	994	1,100	734
11	247	72	757	1,120	3,820	1,870	1,100	1,060	904	834	992	896
12	196	59	1,140	1,050	3,420	1,150	1,090	1,060	858	1,040	854	450
13	200	594	640	980	1,840	1,160	1,280	966	868	1,200	1,080	378
14	199	230	988	992	2,540	1,330	4,680	1,110	742	1,590	1,000	325
15	155	208	*905	1,360	3,610	945	6,180	708	706	1,480	1,150	327
16	594	430	852	1,130	3,650	835	3,660	1,020	766	657	1,890	338
17	157	424	846	920	3,730	824	1,490	952	803	897	1,280	674
18	227	400	741	1,200	3,650	698	2,000	846	668	716	1,100	632
19	163	438	1,350	1,460	3,150	1,040	2,510	946	816	972	1,080	441
20	173	820	600	1,190	1,380	1,430	2,510	948	*702	911	1,360	392
21	177	313	1,140	1,090	1,880	1,150	2,460	1,150	920	872	1,510	349
22	175	632	1,000	1,160	2,810	853	2,310	1,980	321	1,010	1,200	366
23	461	998	819	1,190	2,810	802	1,780	2,170	856	891	1,140	394
24	209	1,000	107	1,030	3,110	774	1,100	3,420	837	838	1,140	815
25	220	1,520	774	1,460	2,310	*654	1,160	3,420	664	617	1,100	856
26	96	1,720	807	1,220	1,880	748	982	3,420	846	808	1,020	*426
27	132	1,230	47	1,090	940	1,020	957	3,420	725	846	1,050	322
28	145	214	511	1,050	1,240	918	918	1,320	824	1,090	872	328
29	113	772	772	1,080	-----	348	897	909	783	1,310	616	324
30	562	1,420	1,360	1,070	-----	338	1,780	1,300	772	1,150	874	320
31	145	-----	2,360	854	-----	334	-----	1,580	-----	910	874	-----
Total	7,544	15,278	27,583	34,420	69,749	36,611	50,596	44,186	27,803	27,728	34,534	17,102
Mean	243	509	890	1,110	2,491	1,181	1,687	1,425	927	894	1,114	570
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 4,950 Min 47 Mean 1,257 Cfsm - In. -
Water year 1954-55: Max 6,180 Min 38 Mean 1,077 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 1955.

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.--28 years, 2,204 cfs.

Extremes.--Maximum discharge during year, 10,400 cfs Apr. 15 (gage height, 16.88 ft); minimum daily, 95 cfs Nov. 11, 12.

1927-55: 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 no gage-height record, which are fair. Flow regulated by Lake Greenwood (see p. 233).

Revisions.--WSP 972: Drainage area.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 27				Nov. 28 to Sept. 30			
3.1	77	5.0	855	3.2	117	8.0	2,280
3.4	167	6.0	1,380	3.5	224	10.0	3,460
4.0	403	7.0	1,940	4.0	429	13.0	5,590
				5.0	839	17.0	10,600
				6.0	1,250		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	407	148	1,210	2,620	1,440	1,900	425	1,400	1,410	860	654	a950
2	540	160	839	1,890	1,060	2,010	675	716	1,280	654	1,250	al,000
3	335	98	900	860	942	2,010	1,360	*1,130	1,420	936	1,220	al,500
4	166	117	696	1,130	922	2,060	548	1,000	1,170	175	1,290	al,000
5	285	120	1,240	942	1,020	1,500	515	1,080	1,010	141	1,250	a550
6	170	368	614	921	1,890	1,380	511	1,080	807	425	1,210	a700
7	198	415	1,240	900	4,260	1,410	1,120	1,560	1,490	331	1,400	860
8	150	*212	1,090	1,000	7,220	2,230	1,900	1,170	1,280	839	*896	696
9	406	163	982	1,420	5,840	1,900	1,840	*757	1,290	1,650	1,040	675
10	380	106	921	654	*4,070	2,010	1,740	1,170	1,480	1,380	1,080	696
11	140	95	736	1,230	4,100	1,960	976	1,080	1,160	757	1,040	1,070
12	222	95	1,370	1,340	4,120	1,430	1,210	1,040	1,040	1,000	962	368
13	202	371	614	1,130	2,740	1,320	1,320	1,080	548	1,280	982	437
14	212	412	1,270	1,040	2,060	1,300	4,940	1,170	839	1,900	1,270	351
15	158	162	*1,080	1,230	3,820	1,080	9,680	1,020	736	1,540	853	347
16	470	341	1,020	1,500	3,820	942	7,440	818	839	1,210	1,940	343
17	348	438	972	757	3,820	a850	2,480	1,130	839	1,120	1,460	595
18	135	424	778	1,580	3,820	a700	1,800	1,000	757	614	1,130	996
19	181	414	1,520	1,650	3,520	al,100	2,740	1,020	958	982	1,080	334
20	164	782	572	1,600	2,150	al,600	2,740	982	*614	1,000	1,240	413
21	180	527	1,360	1,290	1,500	al,400	2,620	1,080	942	982	1,680	392
22	180	346	1,080	1,340	2,920	al,100	2,560	2,780	880	1,000	1,250	388
23	382	946	1,000	1,410	2,980	a850	2,230	2,450	900	1,020	1,130	396
24	316	1,030	261	954	3,160	a900	1,530	3,640	900	1,080	1,170	736
25	198	1,660	725	1,640	2,700	*a700	1,040	3,880	798	507	1,080	1,020
26	150	1,650	842	1,450	2,210	839	1,080	3,820	1,000	880	1,020	*337
27	113	1,740	235	1,190	1,180	1,140	1,130	3,590	548	900	1,020	380
28	152	558	431	1,140	1,060	770	982	2,220	880	1,030	a900	335
29	153	408	736	1,180	-	552	1,020	1,140	839	1,270	a750	343
30	416	1,420	982	1,230	-----	413	1,710	892	818	1,250	a900	339
31	332	-----	2,230	614	-----	404	-----	1,740	-----	1,200	a900	-----
Total	7,841	15,746	29,526	38,622	80,384	39,660	61,872	48,625	29,472	29,913	34,747	18,545
Mean	253	525	952	1,246	2,871	1,279	2,062	1,569	982	965	1,121	618
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 7,300 Min 95 Mean 1,370 Cfsm - In. -

Water year 1954-55: Max 9,680 Min 95 Mean 1,192 Cfsm - In. -

* Discharge measurement made on this day.

a No gage-height record; discharge estimated from recorded range in stage, weather records, and records for station at Chappells.

SANTÉE RIVER BASIN

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 1955.

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, 343.74 ft June 1, 2; minimum, 332.04 ft Dec. 23.

1929-55: 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.

Mean gage height, in feet, water year October 1954 to September 1955											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.
1	37.24	34.58	32.88	32.38	32.26	36.48	37.71	42.28	43.73	41.93	38.94
2	37.17	34.42	32.79	32.69	32.28	36.54	37.73	42.33	43.72	41.83	38.73
3	37.13	34.30	32.68	32.81	32.25	36.80	37.80	42.35	43.68	41.81	38.44
4	37.02	34.14	32.60	32.82	32.15	36.68	37.85	42.36	43.65	41.80	38.16
5	36.72	34.02	32.61	32.85	32.10	36.77	37.88	42.38	43.66	41.78	37.93
6	36.42	33.95	32.65	32.89	32.30	36.84	37.92	42.39	43.59	41.74	37.75
7	36.13	33.92	32.51	32.90	32.99	36.92	38.00	42.41	43.46	41.73	37.74
8	35.93	33.89	32.40	32.91	33.40	36.90	38.08	42.47	43.46	41.66	37.67
9	35.84	33.80	32.30	32.98	33.80	36.95	38.17	42.51	43.45	41.62	37.39
10	35.83	33.78	32.20	33.00	34.10	36.99	38.27	42.48	43.40	41.70	37.11
11	35.78	33.60	32.18	32.96	34.44	37.06	38.36	42.38	43.44	41.73	36.87
12	35.62	33.52	32.20	32.89	34.68	37.16	38.40	42.27	43.49	41.59	36.76
13	35.46	33.46	32.25	32.89	34.88	37.27	38.44	42.21	43.47	41.46	36.69
14	35.31	33.45	32.15	32.77	34.99	37.40	39.92	42.19	43.39	41.34	36.74
15	35.22	33.42	32.10	32.71	35.08	37.44	40.48	42.25	43.31	41.21	36.86
16	35.16	33.32	32.10	32.77	35.28	37.47	41.14	42.26	43.24	41.06	36.86
17	35.13	33.22	32.10	32.78	35.49	37.48	41.48	42.24	43.14	41.04	36.90
18	35.13	33.12	32.12	32.62	35.70	37.49	41.59	42.19	43.09	40.96	36.86
19	35.08	33.07	32.10	32.62	35.68	37.58	41.70	42.16	43.11	40.69	36.70
20	35.07	33.02	32.13	32.61	36.06	37.70	41.81	42.08	43.13	40.48	36.46
21	35.04	33.01	32.09	32.58	36.13	37.78	41.93	42.11	43.03	40.26	36.47
22	35.01	33.01	32.07	32.59	36.19	37.80	42.04	42.30	42.92	40.05	36.50
23	34.94	32.99	32.07	32.68	36.27	37.70	42.13	42.62	42.76	39.94	36.45
24	34.94	32.94	32.10	32.72	36.26	37.70	42.23	42.83	42.62	39.88	36.46
25	34.92	32.89	32.10	32.63	36.31	37.70	42.27	43.06	42.56	39.81	36.46
26	34.82	32.87	32.14	32.57	36.38	37.76	42.26	43.24	42.58	39.57	36.48
27	34.72	32.86	32.18	32.49	36.48	37.74	42.25	43.42	42.54	39.32	36.49
28	34.68	32.82	32.16	32.39	36.50	37.76	42.24	43.56	42.42	39.05	36.52
29	34.66	32.95	32.11	32.35	-	37.73	42.24	43.66	42.27	38.87	36.55
30	34.65	32.90	32.12	32.37	-----	37.72	42.25	43.68	42.11	38.89	36.50
31	34.65	-----	32.13	32.33	-----	37.70	-----	43.69	-----	38.96	36.44

Note.--Add 300 ft to obtain gage heights.

Monthly gage height and contents, water year October 1954 to September 1955

Date	Gage height (feet)†	Contents (billions of cubic feet)	Change in contents during month (equivalent in cubic feet per second)
Sept. 30.....	337.35	31.95	
Oct. 31.....	334.65	28.62	-1,243
Nov. 30.....	332.90	26.57	-791
Dec. 31.....	332.20	25.77	-299
Calendar year 1954.....	-	-	+59
Jan. 31.....	332.26	25.84	+26
Feb. 28.....	336.45	30.81	+2,054
Mar. 31.....	337.71	32.41	+597
Apr. 30.....	342.28	38.62	+2,386
May 31.....	343.71	40.71	+780
June 30.....	342.00	38.22	-961
July 31.....	338.99	34.08	-1,546
Aug. 31.....	336.40	30.75	-1,243
Sept. 30.....	335.35	29.46	-498
Water year 1954-55.....	-	-	-79

† Gage height at 12 p.m.

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 1955.

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.--30 years, 2,797 cfs.

Extremes.--Maximum discharge during year, 9,250 cfs Aug. 19 (gage height, 6.03 ft); minimum, 114 cfs Mar. 28; minimum daily, 125 cfs Oct. 31.
1925-55: 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 except those for periods of no gage-height record, which are fair. Flow regulated by Lake Murray (see preceding page) and Lake Greenwood (see p. 233).

Revisions.--WSP 972: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.1	110	2.5	975
1.3	155	3.0	1,620
1.5	220	4.0	3,440
1.7	320	5.0	6,050
2.0	521		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,210	1,610	2,130	440	1,660	1,150	251	174	1,120	3,250	3,950	1,740
2	922	1,790	2,180	280	1,360	955	152	283	1,740	1,130	4,880	2,870
3	418	2,030	2,330	800	1,780	1,110	138	340	1,530	638	5,540	614
4	4,250	1,880	905	1,000	1,900	728	190	693	690	430	4,940	150
5	4,970	1,720	264	750	971	271	176	1,200	377	1,410	5,030	735
6	4,310	560	2,240	750	324	172	284	686	3,710	1,420	1,880	842
7	3,230	256	2,600	800	1,770	1,580	212	298	2,210	1,430	448	1,450
8	2,110	1,760	2,200	750	1,960	1,280	218	138	702	2,170	4,920	1,750
9	392	1,910	2,400	280	1,210	1,010	162	680	1,460	541	5,090	1,200
10	253	1,380	1,900	1,900	773	1,030	129	2,240	1,900	326	4,540	1,180
11	1,950	1,460	520	2,400	751	580	248	3,000	445	2,940	2,940	410
12	2,510	1,500	162	2,000	286	470	953	2,160	141	3,810	2,450	1,030
13	2,510	462	2,190	1,600	217	316	1,180	1,770	1,380	3,450	546	1,000
14	2,360	250	2,830	2,200	1,930	1,140	1,820	314	1,940	3,780	129	842
15	870	1,410	1,030	1,100	902	1,830	1,080	151	1,650	3,230	1,660	844
16	242	1,900	703	280	1,120	1,040	507	1,460	1,930	1,640	1,650	1,210
17	145	1,840	938	2,200	504	1,250	205	1,800	2,270	388	1,570	430
18	196	1,480	1,350	2,800	964	624	630	1,220	471	4,230	1,850	222
19	274	1,170	542	2,600	894	465	684	1,960	166	5,040	5,020	623
20	238	451	1,060	1,900	270	264	647	1,430	1,860	4,450	2,610	811
21	595	194	1,400	2,200	648	2,210	698	510	3,100	4,530	524	825
22	1,200	1,100	1,320	1,100	1,860	1,240	784	240	3,370	4,230	1,750	858
23	448	1,450	618	280	2,710	1,340	299	256	3,830	2,770	1,710	858
24	210	1,760	286	2,000	2,850	550	413	229	2,820	612	1,280	890
25	1,660	1,120	136	2,800	2,440	446	568	402	545	4,210	722	280
26	1,430	2,080	131	2,400	520	606	985	558	252	4,800	754	1,360
27	1,030	626	403	2,400	199	332	900	807	2,240	4,800	209	1,750
28	940	320	986	2,340	2,200	911	898	573	3,040	4,820	298	1,760
29	697	1,030	674	750	-	690	771	292	3,000	2,810	1,400	1,120
30	305	1,390	512	790	-	396	386	321	3,430	520	2,260	863
31	125	-	600	2,400	-	506	-	358	-	143	2,060	-
Total	44,000	37,889	37,540	46,270	34,973	26,292	16,568	26,543	53,319	79,948	74,610	30,517
Mean	1,419	1,263	1,211	1,493	1,249	848	552	856	1,777	2,579	2,407	1,017
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 5,270 Min 125 Mean 1,389 Cfsm - In. -
Water year 1954-55: Max 5,540 Min 125 Mean 1,393 Cfsm - In. -

* Discharge measurement made on this day.

Note.--No gage-height record Dec. 7-9, Dec. 31 to Jan. 27; discharge estimated on basis of power-plant records at Lake Murray.

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 1955.

Gage.--Water-stage recorder. Auxiliary water-stage recorder 3.9 miles downstream from base gage. 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).

Average discharge.--11 years, 13,570 cfs.

Extremes.--1944-55: 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e4,490	4,600	2,910	5,540	*9,890	9,570	9,540	10,800	11,100	7,470	e4,590	e5,020
2	6,390	6,330	3,600	5,590	9,150	9,160	8,580	9,570	11,100	7,320	e4,580	e4,690
3	4,890	5,830	4,290	5,220	8,380	9,080	7,610	9,040	10,800	6,470	e5,750	e5,410
4	5,660	5,720	4,890	6,070	7,700	9,410	*6,350	9,370	10,800	e4,200	8,710	e4,730
5	5,810	6,250	4,830	6,390	7,590	9,330	5,820	10,300	10,700	e3,710	8,780	e5,160
6	5,810	6,550	4,220	6,860	7,260	8,680	7,550	10,500	10,300	e2,780	8,500	e5,920
7	e3,940	6,830	4,940	7,050	6,710	7,360	8,580	9,840	10,400	e3,710	e6,220	e6,690
8	6,050	6,530	*5,300	7,490	6,860	8,600	8,510	8,500	11,300	e4,160	e4,420	*e5,260
9	5,540	5,490	5,920	7,540	7,940	9,010	8,710	7,320	10,800	5,380	e5,020	e5,030
10	e3,940	4,680	6,250	7,230	9,020	9,470	8,660	7,670	10,300	e3,480	e7,420	e4,590
11	e2,260	4,890	6,440	7,660	10,200	9,620	9,300	9,300	10,200	e3,040	8,350	e3,140
12	e1,830	4,690	6,320	7,810	11,000	9,300	9,940	8,960	9,090	e3,990	e6,920	e3,170
13	e2,660	5,060	6,160	8,710	11,900	8,770	9,980	9,540	8,360	6,590	e4,510	e3,170
14	e1,410	5,230	7,090	8,960	12,800	8,540	10,700	9,540	7,820	8,460	e4,550	e3,170
15	e4,030	5,330	7,150	9,540	14,100	8,830	11,500	6,760	8,120	8,850	e3,340	e3,900
16	e1,020	5,820	6,770	9,790	14,600	8,900	12,400	e5,620	8,520	9,320	e3,340	e3,900
17	e5,95	5,720	6,960	9,480	14,500	9,190	13,100	9,470	8,320	9,490	e4,610	e7,530
18	e1,890	5,080	7,230	9,270	13,900	3,540	14,200	9,200	9,090	9,160	e4,660	10,700
19	e1,450	4,640	7,040	9,620	13,500	9,640	15,700	9,740	7,770	8,990	8,080	e7,750
20	e1,450	4,310	6,850	9,890	12,600	9,780	17,600	9,670	*7,430	8,210	8,820	e5,510
21	e1,850	2,970	6,390	10,500	11,300	9,190	19,300	9,670	8,380	8,270	e6,430	*e7,900
22	e1,830	1,920	6,200	11,400	10,800	10,400	20,200	9,270	9,070	8,150	e2,840	10,500
23	e1,420	2,790	6,260	11,800	10,300	10,000	20,400	*7,560	9,740	8,000	e2,840	10,200
24	e578	3,150	6,260	12,300	9,900	10,000	20,200	8,690	10,400	8,130	e2,890	9,860
25	e1,420	3,320	4,390	12,800	10,100	9,740	20,100	10,900	10,200	e5,720	e3,940	e5,550
26	e1,420	3,770	e2,780	12,500	10,200	10,500	18,800	11,700	9,440	e4,090	e4,930	e4,230
27	e2,240	3,960	e2,380	12,700	9,570	10,000	17,200	13,100	8,080	e4,650	e3,600	e6,160
28	e2,660	3,560	e2,380	12,500	9,480	8,930	15,500	13,700	7,850	e6,040	e3,600	8,060
29	e3,910	3,090	e3,560	12,200	-	9,270	14,100	13,700	7,780	7,740	e2,280	8,910
30	e4,320	2,180	5,950	11,700	-----	9,370	12,600	13,100	7,780	8,890	e2,950	9,180
31	e3,830	-	5,950	10,600	-----	9,670	-----	12,100	-----	7,380	e3,970	-
Total	96,573	140,290	168,460	286,510	291,230	289,050	362,830	304,130	281,440	201,840	161,430	185,990
Mean	3,115	4,676	5,434	9,242	10,400	9,324	12,760	9,611	9,361	6,511	5,207	6,200
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 37,100 Min 578 Mean 10,060 Cfsm - In. -
 Water year 1954-55: Max 20,400 Min 578 Mean 7,643 Cfsm - In. -

* Discharge measurement made on this day.

e Very low fall between gages.

Note.--No gage-height record Nov. 4 to Dec. 13, Jan. 11 to Feb. 13, June 14-20; discharge estimated on basis of fall between Lake Marion near Pineville and Lake Moultrie near Pinepolis.

Lake Marion near Pineville, S. C.

Location.--Lat 33°27'00", long 80°09'50", at right upstream end of spillway, 2.8 miles up-stream 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 1955. 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, 71.55 ft Sept. 16, 17; minimum, 62.85 ft Feb. 5, 1942-55: 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, 39,640,000,000 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 p. 241) for generation of power and for navigation.

Elevation at 12 p.m., in feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65.07	64.34	63.51	64.43	63.11	67.23	65.31	69.28	69.19	65.95	68.51	70.58
2	65.03	64.32	63.56	64.49	63.05	67.17	65.29	69.21	69.07	65.97	68.51	70.71
3	65.02	64.04	63.44	64.55	62.98	67.13	65.30	69.05	68.92	65.94	68.58	70.77
4	64.95	63.98	63.50	64.52	62.90	67.07	65.30	69.01	68.79	65.91	68.73	70.89
5	64.83	63.91	63.73	64.56	62.91	67.00	65.31	68.93	68.71	65.90	68.83	71.05
6	64.89	63.84	63.68	64.62	62.97	66.95	65.36	68.84	68.54	65.95	68.88	71.21
7	64.84	63.80	63.63	64.57	63.07	66.93	65.32	68.73	68.37	65.93	68.92	71.26
8	64.86	63.70	63.71	64.51	63.29	66.76	65.26	68.72	68.24	65.92	68.89	71.43
9	64.81	63.56	63.97	64.48	63.66	66.69	65.37	68.61	68.04	65.93	68.84	71.40
10	64.77	63.49	63.99	64.40	64.09	66.62	65.57	68.49	67.86	66.01	68.92	71.41
11	64.72	63.45	64.03	64.27	64.69	66.53	65.84	68.40	67.78	66.06	69.09	71.45
12	64.67	63.41	64.09	64.25	64.96	66.45	65.80	68.30	67.66	66.09	69.09	71.45
13	64.65	63.36	64.28	64.20	65.54	66.38	65.89	68.38	67.58	66.22	69.20	71.47
14	64.64	63.31	64.33	64.18	66.23	66.31	66.11	68.25	67.38	66.36	69.28	71.51
15	64.68	63.21	64.29	64.18	66.69	66.16	66.30	68.22	67.28	66.63	69.30	71.52
16	65.01	63.09	64.30	64.17	67.04	66.11	66.51	68.21	67.11	66.88	69.37	71.54
17	65.01	62.97	64.31	64.06	67.25	66.02	66.79	68.20	66.95	67.09	69.47	71.50
18	65.00	62.93	64.36	63.95	67.38	66.04	67.15	68.19	66.86	67.24	69.69	71.39
19	64.93	62.95	64.42	63.93	67.43	66.10	67.83	68.19	66.79	67.28	69.82	71.43
20	64.84	63.02	64.39	63.84	67.46	66.06	68.53	68.11	66.69	67.41	69.92	71.03
21	64.78	63.02	64.32	63.80	67.47	66.05	69.05	68.20	66.49	67.53	70.03	70.90
22	64.71	63.02	64.34	63.80	67.37	66.10	69.35	68.29	66.37	67.62	70.06	70.71
23	64.69	63.02	64.41	63.88	67.32	65.96	69.55	68.29	66.31	67.76	70.11	70.51
24	64.71	63.08	64.41	63.85	67.34	65.94	69.76	68.45	66.29	67.87	70.34	70.33
25	64.71	63.05	64.38	63.70	67.29	65.93	69.77	68.68	66.18	67.90	70.43	70.26
26	64.68	63.10	64.40	63.59	67.33	66.02	69.63	68.87	66.18	67.88	70.45	70.20
27	64.67	63.14	64.37	63.54	67.35	65.85	69.51	69.07	66.13	67.95	70.44	70.09
28	64.65	63.29	64.32	63.50	67.32	65.77	69.45	69.22	66.01	68.21	70.49	69.97
29	64.72	63.29	64.34	63.45	-	65.59	69.39	69.36	65.98	68.32	70.52	69.84
30	64.59	63.23	64.37	63.34	-	65.50	69.33	69.44	65.92	68.40	70.51	69.71
31	64.44	-	64.32	63.26	-	65.40	-	69.27	-	68.47	70.56	-

Monthly elevation and contents, water year October 1954 to September 1955

Date	Elevation (feet)†	Contents (billions of cubic feet)	Change in contents during month (equivalent in cubic feet per second)
Sept. 30	65.08	8.88	-
Oct. 31	64.44	7.59	-482
Nov. 30	63.23	5.27	-895
Dec. 31	64.32	7.35	+777
Calendar year 1954	-	-	-294
Jan. 31	63.26	5.32	-758
Feb. 28	67.32	13.89	+3,542
Mar. 31	65.40	9.57	-1,613
Apr. 30	69.33	19.17	+3,704
May 31	69.27	19.00	-63
June 30	65.93	10.70	-3,202
July 31	68.47	16.80	+2,277
Aug. 31	70.56	22.91	+2,281
Sept. 30	69.71	20.28	-1,015
Water year 1954-55	-	-	+361

† Elevation at 12 p.m.

Santee River near Pineville, S. C.

Location.--Lat 33°27'15", long 80°09'25", on right bank 2.4 miles (revised) 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 1955.

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.--13 years, 2,135 cfs.

Extremes.--Maximum discharge during year, 653 cfs Oct. 15, Sept. 8; maximum gage height, 2.34 ft Oct. 15; minimum daily discharge, 165 cfs Oct. 17.

1942-55: 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 closing gates for 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. 239) 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	492	528	545	528	528	510	510	528	528	510	528	510
2	492	545	528	545	427	510	492	528	510	510	439	528
3	510	512	545	545	510	492	510	510	510	510	528	528
4	510	*486	545	528	528	492	510	528	510	510	528	528
5	510	563	545	510	528	492	510	528	528	510	528	545
6	492	545	563	528	510	528	510	528	528	528	510	545
7	528	545	545	545	510	475	510	528	528	510	528	545
8	528	545	545	545	492	475	510	528	510	528	528	563
9	492	528	528	528	545	458	510	528	510	492	528	563
10	492	528	528	528	*545	475	510	528	528	528	528	528
11	510	545	545	528	528	482	510	*528	492	528	528	528
12	510	528	528	510	518	510	510	528	492	510	492	545
13	430	528	510	510	205	510	563	528	510	510	528	545
14	510	528	545	528	545	528	486	492	510	528	528	563
15	483	528	545	528	563	510	583	492	391	528	528	528
16	462	528	528	545	545	510	563	492	492	528	510	528
17	165	492	510	528	545	492	545	510	528	528	510	528
18	492	510	545	510	528	510	545	510	528	510	528	528
19	510	545	545	545	510	510	545	510	528	475	510	528
20	545	545	545	528	510	528	545	510	510	510	528	528
21	545	528	510	510	510	510	563	545	510	510	545	545
22	528	528	*545	510	510	510	528	545	528	528	528	510
23	510	510	528	528	528	510	528	545	528	528	528	510
24	545	510	528	545	545	492	528	528	563	528	545	528
25	475	528	528	528	528	510	528	528	510	528	*528	510
26	492	528	528	545	492	510	528	528	510	510	528	545
27	528	528	510	545	510	437	528	510	510	528	528	510
28	545	510	528	510	510	492	528	492	510	528	528	528
29	545	545	528	528	-	510	528	510	510	528	528	510
30	447	528	528	545	-----	510	510	563	*456	510	528	528
31	510	-----	510	528	-----	*510	-----	510	-----	510	528	-----
Total	15,333	15,845	16,534	16,412	14,053	15,498	15,754	16,166	15,306	16,025	16,205	15,956
Mean	495	528	533	529	502	500	525	521	510	517	523	532
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954 : Max	744			Min	165	Mean	518	Cfsm	-	In.	-	
Water year 1954-55 : Max	563			Min	165	Mean	518	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 1955. 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, 71.69 ft Sept. 15; minimum, 59.40 ft Jan. 27. 1942-55: 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. 239) 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.

Elevation at 12 p.m., in feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64.86	64.16	63.23	64.15	61.07	66.77	64.44	69.08	68.74	65.85	68.47	70.69
2	64.79	64.12	63.25	64.39	61.35	66.69	64.71	68.93	68.66	65.70	68.50	70.81
3	64.95	63.80	63.28	64.31	61.59	66.58	65.02	68.80	68.52	65.81	68.45	70.82
4	64.75	63.56	63.27	64.30	61.73	66.52	65.14	68.82	68.39	65.91	68.50	71.00
5	64.70	63.45	63.45	64.27	61.71	66.48	65.08	68.45	68.41	65.90	68.58	71.13
6	64.81	63.24	63.50	64.30	62.22	66.80	64.75	68.38	68.12	65.91	68.65	71.28
7	64.82	63.24	63.40	64.17	62.29	66.58	64.66	68.38	67.89	65.86	68.91	71.29
8	64.88	63.28	63.45	63.79	62.34	66.32	64.54	68.66	67.77	65.85	68.89	71.37
9	64.65	63.36	63.55	63.91	62.46	66.03	64.52	68.45	67.54	65.82	68.86	71.41
10	64.85	63.28	63.54	63.81	62.64	65.88	64.87	68.25	67.30	66.11	68.96	71.44
11	64.83	63.23	63.55	63.57	62.96	65.85	64.90	68.14	67.31	66.04	69.25	71.58
12	64.81	63.28	63.79	63.50	63.06	65.85	64.79	67.97	67.80	66.01	69.19	71.58
13	64.86	63.00	63.85	63.19	63.52	65.98	64.74	68.00	67.34	65.86	69.21	71.60
14	64.71	63.08	63.86	62.89	63.77	65.75	64.72	67.91	67.10	65.80	69.37	71.65
15	65.22	62.79	63.83	62.60	64.26	65.57	64.88	68.18	66.89	66.10	69.43	71.64
16	65.21	62.49	63.77	62.74	64.75	65.41	64.64	67.99	66.66	66.26	69.49	71.61
17	65.18	62.60	63.78	62.58	65.25	65.27	64.72	67.87	66.35	66.66	69.55	71.41
18	65.09	62.69	63.88	62.42	65.64	65.18	64.74	67.81	66.39	66.77	69.58	71.34
19	65.04	62.78	64.10	62.26	65.90	65.15	64.91	67.80	66.63	66.94	69.61	71.20
20	64.99	62.93	64.09	61.90	66.44	65.33	65.10	67.57	66.30	67.11	69.75	71.01
21	64.88	63.08	64.08	61.34	66.59	65.18	65.45	67.86	65.99	67.19	70.01	70.74
22	64.80	63.02	64.07	60.96	66.64	65.17	65.72	68.14	65.63	67.30	70.04	70.48
23	64.83	63.02	64.12	60.94	66.69	64.96	66.07	68.01	65.43	67.41	70.19	70.26
24	64.88	63.00	64.18	60.54	66.72	64.98	66.59	68.00	65.28	67.69	70.48	70.13
25	64.81	62.99	64.37	60.02	66.65	64.98	67.01	67.97	65.40	67.77	70.47	70.44
26	64.77	62.99	64.48	59.62	66.61	65.10	67.47	68.02	65.72	67.78	70.51	70.17
27	64.72	63.06	64.39	59.40	66.94	65.21	67.87	68.04	65.72	67.78	70.49	70.04
28	64.69	63.19	64.28	59.67	66.86	65.00	68.21	68.11	65.68	67.79	70.60	69.86
29	64.74	63.29	64.17	59.97	-	64.81	68.53	68.59	65.65	67.92	70.62	69.70
30	64.55	63.25	64.09	60.54	-----	64.49	68.71	68.79	65.61	68.13	70.59	69.53
31	64.51	-----	64.14	60.79	-----	64.31	-----	68.81	-----	68.42	70.60	-----

Monthly elevation and contents, water year October 1954 to September 1955

Date	Elevation (feet) [†]	Contents (billions of cubic feet)	Change in contents during month (equivalent in cubic feet per second)
Sept. 30.....	65.05	7.10	-
Oct. 31.....	64.51	6.24	-321
Nov. 30.....	63.25	4.33	-737
Dec. 31.....	64.14	5.66	+497
Calendar year 1954..	-	-	-147
Jan. 31.....	60.79	1.00	-1,740
Feb. 28.....	66.86	10.20	+3,803
Mar. 31.....	64.31	5.93	-1,594
Apr. 30.....	68.71	13.79	+3,032
May 31.....	68.61	13.99	+75
June 30.....	65.61	8.02	-2,303
July 31.....	68.42	13.21	+1,938
Aug. 31.....	70.60	17.77	+1,703
Sept. 30.....	69.53	15.48	-883
Water year 1954-55..	-	-	+266

[†] Elevation at 12 p.m.

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 north of Montmorenci, Aiken County.

Drainage area.--198 sq mi.

Records available.--April 1940 to September 1955.

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.--15 years, 229 cfs.

Extremes.--Maximum discharge during year, 1,790 cfs Apr. 16 (gage height, 8.16 ft); minimum, 57 cfs Oct. 14 (gage height, 1.80 ft).
1940-55: 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 Oct. 1-28, which are fair.

Revisions (water years).--WSP 952: 1941. WSP 1032: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 11 to Feb. 8, July 17 to Aug. 19)

1.6	57	6.0	334
2.0	73	6.5	502
3.0	113	7.0	820
5.0	204	8.0	1,650
5.5	249		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	95	133	135	151	157	139	131	101	67	*164	75
2	81	97	125	171	149	155	139	125	93	61	166	93
3	73	91	121	202	149	153	149	121	89	61	145	101
4	69	91	119	277	149	149	155	117	85	61	121	107
5	69	95	121	346	145	147	155	113	81	65	111	107
6	69	101	159	263	157	149	149	109	79	75	103	103
7	69	109	176	200	208	181	147	79	117	103	99	
8	73	107	189	171	280	176	153	105	77	119	99	93
9	85	103	192	157	507	184	159	103	77	93	93	93
10	85	101	188	151	440	168	149	101	77	81	89	89
11	69	101	149	164	314	155	145	93	87	83	89	83
12	61	101	141	174	249	149	151	91	101	113	83	83
13	61	101	*143	189	219	149	168	101	*121	127	79	81
14	61	103	166	184	208	151	300	129	101	109	77	83
15	69	109	176	161	198	153	739	151	91	129	99	91
16	69	115	192	153	186	178	1,560	133	87	155	141	95
17	65	129	174	159	184	198	799	117	83	201	184	87
18	69	143	151	171	178	178	431	111	85	252	192	79
19	73	145	143	192	176	174	306	105	95	137	133	*77
20	77	133	141	201	174	189	249	97	117	131	105	73
21	77	125	137	219	168	*215	215	95	123	131	99	73
22	73	123	151	228	161	238	195	107	123	139	101	69
23	73	123	129	201	161	219	184	168	109	119	93	67
24	73	133	127	201	161	184	176	236	111	109	89	65
25	*77	139	125	211	168	161	*164	313	105	103	101	67
26	81	137	123	211	171	153	153	294	95	109	107	113
27	81	125	121	211	168	149	145	211	89	109	107	153
28	77	123	123	189	161	143	139	151	81	103	89	178
29	81	129	125	171	141	141	135	123	75	107	81	188
30	95	135	127	161	-----	141	135	115	71	125	75	141
31	101	-----	129	*155	-----	141	-----	109	-----	143	75	-----
Total	2,321	3,462	4,476	5,979	5,740	5,158	7,983	4,182	2,788	3,534	3,393	2,907
Mean	74.9	115	144	193	205	166	266	135	92.9	114	109	96.9
Cfsm	0.378	0.581	0.727	0.975	1.04	0.838	1.34	0.682	0.469	0.576	0.551	0.489
In.	0.44	0.65	0.84	1.12	1.08	0.97	1.50	0.79	0.52	0.66	0.64	0.55

Calendar year 1954: Max 358 Min 40 Mean 139 Cfsm 0.702 In. 9.52

Water year 1954-55: Max 1,560 Min 61 Mean 142 Cfsm 0.717 In. 9.76

Peak discharge (base, 900 cfs).--Apr. 16 (6:30 a.m.) 1,790 cfs (8.16 ft).

* Discharge measurement made on this day.

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 1955.

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.--24 years, 746 cfs.

Extremes.--Maximum discharge during year, 1,640 cfs Apr. 20 (gage height, 7.19 ft); minimum, 215 cfs Aug. 14.

1931-55: 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, 171 cfs Sept. 13, 1954.

Remarks.--Records good.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

3.3	215	6.5	780
4.0	292	6.9	1,180
5.0	405	7.2	1,660
6.0	565		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	242	292	417	443	648	553	480	405	565	325	430	314
2	237	*292	417	503	627	553	472	381	484	298	393	381
3	237	292	417	541	610	541	472	369	375	270	369	457
4	237	292	417	553	579	531	472	358	314	254	358	472
5	237	298	417	579	553	521	464	347	286	248	347	464
6	232	303	436	593	553	512	464	330	270	259	330	450
7	226	308	450	593	648	512	472	320	259	259	303	436
8	226	314	457	579	*720	521	480	308	248	259	281	430
9	226	320	472	593	732	521	480	*298	237	292	264	436
10	226	325	487	627	774	521	472	292	237	342	259	436
11	237	325	495	694	774	521	480	286	292	381	248	405
12	237	330	503	720	768	521	512	276	381	405	232	381
13	232	330	521	669	788	521	521	281	405	405	220	352
14	237	336	553	627	855	521	583	347	424	387	220	352
15	259	347	565	593	900	521	750	375	381	450	237	352
16	270	358	579	579	855	512	802	405	325	487	237	336
17	270	364	579	579	780	503	840	405	286	457	237	314
18	270	369	579	579	720	487	909	387	292	417	259	308
19	259	381	565	627	669	512	1,150	364	477	387	280	303
20	254	399	*553	669	627	565	1,590	342	610	399	280	292
21	254	411	553	669	610	593	1,430	320	567	436	300	281
22	254	417	541	669	593	627	1,110	369	531	424	320	270
23	254	424	531	694	565	648	891	443	512	387	*303	259
24	254	424	512	744	565	648	768	457	503	358	320	254
25	259	424	495	774	553	610	669	457	512	352	369	254
26	259	417	480	788	553	579	593	450	503	443	411	259
27	259	411	464	795	553	585	541	443	521	464	417	264
28	259	411	457	780	553	565	503	450	*521	443	417	281
29	270	417	450	744	-	*553	464	480	480	430	417	303
30	292	417	443	694	-----	521	436	553	381	424	405	320
31	292	---	436	669	-----	495	-----	627	-----	457	358	-----
Total	7,757	10,748	15,241	19,960	18,725	16,874	20,270	11,925	12,179	11,599	9,801	10,416
Mean	250	358	423	644	669	544	676	385	406	374	318	347
Cfs/m	0.347	0.487	0.633	0.694	0.929	0.756	0.939	0.535	0.564	0.519	0.439	0.462
In.	0.40	0.55	0.79	1.03	0.97	0.87	1.05	0.62	0.63	0.60	0.51	0.54
Calendar year 1954: Max	1,320			Min 171		Mean 468		Cfs/m 0.650		In. 8.83		
Water year 1954-55: Max	1,590			Min 220		Mean 453		Cfs/m 0.629		In. 8.56		

* Discharge measurement made on this day.

North Fork Edisto River at Orangeburg, S. C.

Location--Lat 33°29'00", long 80°52'25", on left bank under bridge (revised) 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 1955.

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--16 years (1939-55), 706 cfs.

Extremes--Maximum discharge during year, 1,420 cfs Apr. 20 (gage height, 7.78 ft); minimum, 204 cfs July 9.
1938-55: 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 1 to July 31, Aug. 28 to Sept. 30)

Oct. 1 to May 25

May 26 to Sept. 30

2.8	233	5.0	530	2.9	209	5.0	518
3.0	253	6.0	728	3.0	218	6.0	722
3.5	310	7.0	1,020	3.5	277	7.0	1,020
4.0	375	8.0	1,560	4.0	350		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	238	*298	375	418	602	496	464	418	554	312	746	310
2	238	298	375	464	602	480	448	389	482	270	722	440
3	233	298	375	513	566	480	448	375	431	251	602	527
4	233	298	375	530	548	480	448	361	406	239	491	554
5	233	298	375	513	530	464	433	348	374	223	406	513
6	233	304	403	513	560	464	433	335	328	228	350	545
7	233	310	418	513	642	496	448	322	291	245	320	474
8	238	310	433	513	*706	513	448	310	264	218	298	455
9	238	310	433	530	752	530	433	*304	245	209	284	500
10	238	316	433	548	706	513	433	292	251	214	277	398
11	238	316	448	602	706	496	464	286	277	273	277	358
12	243	316	448	622	706	496	530	280	328	411	264	342
13	243	310	480	642	706	480	584	286	350	422	258	328
14	243	310	496	584	728	496	744	335	335	382	245	335
15	270	310	513	566	752	513	955	389	312	448	245	328
16	298	322	513	548	752	496	1,100	389	291	456	239	305
17	310	328	513	548	706	480	1,100	375	264	414	234	284
18	304	335	513	548	662	496	955	348	258	342	234	277
19	298	348	496	602	622	513	920	328	264	298	239	264
20	286	348	*496	622	584	566	1,300	310	328	350	251	258
21	286	361	496	642	566	602	1,300	335	491	406	342	251
22	280	361	480	642	548	622	1,060	418	527	406	350	239
23	275	361	480	642	530	642	890	548	491	342	*320	228
24	275	375	464	684	513	622	776	622	500	298	411	223
25	275	375	433	728	513	602	684	684	527	277	612	223
26	275	375	433	752	513	584	622	643	602	358	592	223
27	275	375	418	752	496	566	548	612	612	342	491	228
28	275	375	403	728	496	548	513	612	*554	342	374	234
29	286	375	403	684	-	*530	464	612	474	358	305	245
30	292	375	403	662	-----	513	433	643	382	465	270	258
31	298	-	389	642	-----	480	-----	622	-----	592	251	-
Total	8,180	9,991	13,713	18,497	17,319	16,259	20,378	13,131	11,793	10,391	11,300	10,152
Mean	264	333	442	597	619	524	679	424	393	335	365	338
Cfsm	0.387	0.488	0.647	0.874	0.906	0.767	0.994	0.621	0.575	0.490	0.534	0.495
In.	0.45	0.54	0.75	1.01	0.94	0.88	1.11	0.72	0.64	0.56	0.62	0.55

Calendar year 1954: Max 1,360 Min 190 Mean 439 Cfsm 0.643 In. 8.73
Water year 1954-55: Max 1,300 Min 209 Mean 441 Cfsm 0.646 In. 8.77

* 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 1955.

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.--9 years (1946-55), 1,742 cfs.

Extremes.--Maximum discharge during year, 2,690 cfs Apr. 24 (gage height, 6.43 ft); minimum, 439 cfs Oct. 10-13.

1945-55: Maximum discharge, 10,000 cfs Oct. 6, 1948 (gage height, 10.21 ft, present datum); minimum, 380 cfs Sept. 13-15, 1954.

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

Rating table, water year 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Sept. 5-30)

0.1	427	4.0	1,570
1.0	658	6.0	2,420
2.0	943	7.0	3,220

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	488	530	750	885	1,570	1,210	1,180	1,240	1,090	1,180	914	713
2	476	*540	750	914	1,540	1,180	1,150	1,120	1,120	1,060	1,000	672
3	464	539	750	943	1,460	1,180	1,120	1,000	1,150	856	1,000	713
4	464	539	750	972	1,400	1,180	1,090	914	1,150	713	1,030	856
5	451	539	750	1,000	1,360	1,150	1,060	856	1,060	644	1,000	1,000
6	451	552	780	1,030	1,330	1,150	1,030	798	885	604	914	1,090
7	451	552	820	1,030	1,400	1,150	1,030	769	769	578	798	1,120
8	451	552	840	1,060	*1,400	1,120	1,030	741	685	578	713	1,120
9	451	565	860	1,060	1,430	1,120	1,000	*699	644	578	658	1,060
10	439	580	880	1,090	1,500	1,120	1,000	658	604	631	604	1,000
11	439	600	890	1,120	1,540	1,120	1,060	644	591	644	578	1,000
12	439	610	900	1,120	1,570	1,120	1,240	618	618	699	552	1,000
13	439	610	940	1,150	1,600	1,120	1,330	604	672	798	539	943
14	451	620	1,000	1,180	1,640	1,120	1,790	591	713	914	526	885
15	476	630	1,020	1,240	1,640	1,120	2,150	604	741	972	501	827
16	488	640	1,030	1,270	1,640	1,120	2,250	658	769	972	501	798
17	501	660	1,050	1,300	1,640	1,120	2,300	713	741	943	501	769
18	514	670	1,060	1,270	1,680	1,120	2,420	741	699	972	488	741
19	526	680	1,030	1,300	1,710	1,120	2,480	741	658	972	488	685
20	526	690	*1,000	1,270	1,710	1,180	2,420	713	672	914	501	658
21	520	700	1,000	1,270	1,680	1,180	2,300	699	798	856	539	644
22	510	710	1,030	1,300	1,570	1,240	2,200	713	1,060	856	552	618
23	510	720	1,030	1,330	1,500	1,270	2,420	769	1,500	914	*591	604
24	500	730	1,000	1,400	1,400	1,300	2,690	885	1,710	914	618	578
25	500	740	1,000	1,430	1,330	1,330	2,620	972	1,570	856	631	578
26	490	740	1,000	1,460	1,300	1,360	2,360	1,090	1,360	769	672	685
27	490	740	972	1,500	1,240	1,380	2,110	1,150	1,270	741	769	631
28	490	740	943	1,540	1,210	1,330	1,870	1,210	1,210	827	827	604
29	500	740	943	1,570	-	*1,300	1,640	1,180	1,240	885	885	604
30	510	740	914	1,600	-----	1,240	1,430	1,120	1,240	885	827	618
31	520	---	885	1,600	-----	1,210	-----	1,120	-----	885	741	---
Total	14,925	19,198	28,567	38,204	41,990	35,940	51,770	26,330	28,989	25,610	21,458	23,814
Mean	481	640	922	1,232	1,500	1,192	1,726	849	966	825	692	794
Cfsm	0.280	0.372	0.536	0.716	0.872	0.693	1.00	0.494	0.562	0.490	0.402	0.462
In.	0.32	0.42	0.62	0.83	0.91	0.80	1.12	0.57	0.63	0.55	0.46	0.52
Calendar year 1954: Max	2,770				Min 380	Mean 1,033	Cfsm 0.601	In. 8.16				
Water year 1954-55: Max	2,690				Min 439	Mean 980	Cfsm 0.570	In. 7.75				

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 21 to Nov. 2, Nov. 10 to Dec. 20; discharge estimated on basis of recorded range in stage and records for other stations in same drainage basin.

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.--2,739 sq mi, approximately.

Records available.--January 1939 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 20.46 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--16 years, 2,361 cfs.

Extremes.--Maximum discharge during year, 4,540 cfs Sept. 16 (gage height, 8.81 ft); minimum, 365 cfs Oct. 13 (gage height, 0.87 ft).

1939-55: 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, 310 cfs Sept. 14, 1954 (gage height, 0.64 ft).

Remarks.--Records good. About 49,900,000 gal per day (77.2 cfs) diverted above station for Charleston water supply during year.

Revisions.--WSP 1032: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.9	378	6.0	2,380
1.0	406	8.0	3,700
2.0	690	9.0	4,780
4.0	1,420		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	420	448	660	814	1,600	1,280	1,240	2,430	1,320	1,240	1,240	878
2	406	462	660	814	1,600	1,240	1,200	2,030	1,280	1,200	1,280	846
3	406	*462	660	814	1,600	1,200	1,160	1,600	1,240	1,120	1,240	980
4	406	476	675	846	1,550	1,200	1,120	1,320	1,200	945	1,240	1,580
5	392	476	675	878	1,500	1,160	1,080	1,120	1,200	782	1,320	2,580
6	392	476	690	878	1,460	1,160	1,050	980	1,160	660	1,730	3,260
7	378	490	690	910	1,460	1,120	1,050	878	1,020	602	1,980	4,090
8	378	490	705	945	1,500	1,120	1,020	814	978	560	1,780	4,420
9	378	490	720	945	1,500	1,120	1,020	766	798	560	1,420	4,090
10	378	490	720	980	1,500	1,080	980	*705	735	574	1,120	3,520
11	378	504	735	1,020	1,500	1,080	1,020	660	690	602	945	3,210
12	378	518	750	1,020	1,550	1,080	1,120	616	645	645	846	2,940
13	378	518	766	1,050	1,550	1,080	1,280	602	616	660	766	2,760
14	378	518	798	1,050	1,600	1,080	1,500	574	630	720	705	2,880
15	420	532	814	1,080	1,640	1,080	1,850	574	660	878	675	4,000
16	420	532	846	1,120	1,640	1,080	2,280	574	675	980	602	4,540
17	420	546	846	1,160	1,640	1,050	2,760	602	675	980	546	4,090
18	434	560	878	1,200	1,640	1,080	3,210	630	690	945	532	3,610
19	434	560	878	1,280	1,640	1,080	3,440	660	675	945	518	3,210
20	462	574	910	1,280	1,680	1,080	3,520	660	645	980	490	2,820
21	462	574	*910	1,240	1,680	1,120	3,520	645	645	1,080	602	2,380
22	448	574	945	1,240	1,730	1,160	3,700	645	690	1,050	720	2,030
23	448	588	945	1,240	1,680	1,200	3,700	660	846	980	660	1,680
24	434	602	945	1,320	1,640	1,240	3,610	675	1,120	980	*645	1,420
25	434	616	945	1,370	1,600	1,240	3,440	750	1,370	1,020	1,270	1,200
26	434	630	945	1,420	1,500	1,280	3,360	910	1,550	980	2,130	1,120
27	434	645	945	1,460	1,420	1,320	3,280	1,160	1,600	878	2,030	1,420
28	434	660	910	1,460	1,320	1,320	3,210	1,320	1,460	814	1,680	1,780
29	434	660	878	1,500	1,320	1,320	3,070	1,460	*1,320	846	1,420	1,680
30	434	660	878	1,550	1,320	2,760	1,460	1,280	1,280	1,050	1,200	1,980
31	448	--	846	1,550	1,320	1,320	1,370	1,370	1,200	1,200	1,020	---
Total	12,860	16,331	25,168	35,434	43,920	36,290	66,530	29,850	29,313	27,456	34,352	77,094
Mean	415	544	812	1,143	1,569	1,171	2,218	963	977	886	1,108	2,570
Cfsm	--	--	--	--	--	--	--	--	--	--	--	--
In.	--	--	--	--	--	--	--	--	--	--	--	--
Calendar year 1954: Max	3,610			Min 310		Mean 1,199	Cfsm --	In. --				
Water year 1954-55: Max	4,540			Min 378		Mean 1,191	Cfsm --	In. --				

* Discharge measurement made on this day.

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 1955.

Gage.--Staff gage read twice daily. Datum of gage is 64.35 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 950 cfs Apr. 15 (gage height, 4.02 ft); minimum, 38 cfs Aug. 21, 1951-55; 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 1954-55 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Dec. 17 to Jan. 22,
Apr. 24 to May 23, June 24 to July 14)

1.2	36	3.0	262
1.5	54	3.4	422
2.0	98	3.8	691
2.5	163	4.1	950

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	78	179	156	329	205	171	98	141	121	171	141
2	78	83	171	196	311	214	171	88	*109	98	128	121
3	65	*83	171	196	*262	214	205	83	88	74	115	109
4	58	88	171	196	236	214	214	78	78	65	109	118
5	51	88	163	196	225	205	214	69	65	<u>61</u>	98	269
6	48	93	179	205	249	205	205	69	58	61	83	278
7	48	98	196	214	350	196	225	65	51	65	69	278
8	58	98	196	225	397	196	249	61	48	78	58	278
9	65	98	196	225	397	196	262	54	<u>42</u>	78	48	329
10	65	104	196	249	422	196	262	51	<u>48</u>	88	45	<u>397</u>
11	65	104	205	236	<u>450</u>	196	504	48	69	128	42	372
12	61	104	205	225	450	196	511	<u>45</u>	88	163	41	329
13	58	104	225	205	450	196	614	<u>48</u>	83	205	40	293
14	61	115	249	196	422	196	774	48	74	<u>249</u>	39	278
15	88	121	262	196	422	188	<u>905</u>	48	65	<u>205</u>	39	262
16	93	128	278	205	397	179	774	54	69	163	39	214
17	88	134	249	214	350	188	614	58	74	141	39	205
18	78	134	249	214	311	188	511	58	132	134	39	225
19	74	141	236	278	278	188	450	54	278	115	39	214
20	69	156	236	293	262	214	372	54	329	98	39	196
21	69	171	225	293	236	236	350	54	249	98	38	171
22	69	179	214	293	236	262	311	65	214	98	<u>45</u>	148
23	65	196	205	329	225	278	278	98	296	109	60	128
24	65	205	196	422	225	278	214	128	<u>422</u>	163	139	109
25	65	<u>214</u>	188	479	225	278	171	148	397	141	<u>366</u>	109
26	65	205	171	511	214	262	148	163	329	121	234	176
27	65	196	163	479	214	249	134	196	278	115	179	205
28	65	188	*163	450	*205	236	*128	196	278	*128	179	163
29	69	*188	156	422	-	214	115	196	*262	163	188	141
30	74	179	156	372	-----	188	<u>109</u>	205	180	179	188	134
31	78	-	<u>148</u>	350	-----	*179	-----	<u>171</u>	-----	188	*171	-
Total	2,113	4,073	6,197	8,720	8,750	6,630	10,165	2,851	4,894	3,893	3,107	6,390
Mean	68.2	136	200	281	312	214	339	92.0	163	125	100	213
Cfsm	0.200	0.399	0.587	0.824	0.915	0.628	0.994	0.270	0.478	0.370	0.293	0.625
In.	0.23	0.45	0.68	0.95	0.95	0.72	1.11	0.31	0.53	0.43	0.34	0.70

Calendar year 1954: Max 817 Min 18 Mean 182 Cfsm 0.534 In. 7.24
Water year 1954-55: Max 905 Min 38 Mean 186 Cfsm 0.545 In. 7.40

* Discharge measurement made on this day.

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 (revised), 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 September 1955.

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.

Extremes.--Maximum discharge during year, 5,330 cfs Apr. 18 (gage height, 8.18 ft); minimum daily, 11 cfs Oct. 8.

1951-55: Maximum discharge, that of Apr. 18, 1955; minimum daily, 9 cfs July 7, 1954.

Remarks.--Records fair except those below 40 cfs, which are poor.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	24	149	181	564	328	286	391	212	458	325	353
2	34	70	149	187	532	302	276	314	252	485	327	348
3	34	26	133	184	508	303	271	268	243	478	322	482
4	31	*26	128	185	499	309	267	230	222	490	295	682
5	26	37	149	184	488	296	270	218	202	476	278	1,100
6	22	34	187	195	502	286	271	177	177	482	261	1,390
7	22	50	176	190	587	278	257	158	138	425	229	1,150
8	11	62	198	210	653	285	260	129	147	348	197	853
9	26	64	197	235	658	295	290	120	100	341	160	760
10	29	82	189	245	636	277	284	118	60	289	123	684
11	40	63	190	252	599	256	296	105	96	314	93	645
12	66	84	188	232	532	240	440	64	122	299	120	678
13	55	105	208	255	520	235	566	59	95	255	137	715
14	42	94	233	232	544	236	701	72	92	223	137	798
15	100	78	222	260	544	241	1,220	42	116	258	90	947
16	60	78	213	267	556	229	2,750	38	130	223	69	1,020
17	68	76	224	298	556	208	4,550	70	121	199	66	983
18	46	70	232	266	563	219	5,070	52	133	213	97	889
19	35	70	202	330	569	213	*4,030	72	219	259	88	814
20	20	76	201	343	556	229	3,100	93	214	281	59	686
21	28	68	219	352	546	239	2,420	118	214	402	42	621
22	58	51	240	362	525	261	1,950	130	244	400	29	582
23	49	83	260	361	498	216	1,570	181	280	391	53	498
24	58	86	234	434	472	239	1,270	160	337	319	f70	417
25	55	92	227	514	444	255	1,000	158	333	268	f150	363
26	77	92	230	508	432	281	823	151	326	440	f220	351
27	*54	92	234	518	405	225	685	151	286	728	f260	380
28	49	112	232	539	353	256	826	147	305	*755	f300	383
29	51	128	228	552	---	284	550	142	349	481	f320	368
30	46	135	209	550	---	*298	464	143	397	323	f400	563
31	40	---	187	565	---	285	---	174	---	299	f420	---
Total	1,373	2,208	3,268	10,012	14,841	8,104	36,843	4,445	6,162	11,602	5,737	20,483
Mean	44.3	73.6	202	323	530	261	1,228	143	205	374	185	683
Cfsm	0.040	0.067	0.184	0.294	0.482	0.237	1.12	0.130	0.186	0.340	0.168	0.621
In.	0.05	0.07	0.21	0.34	0.50	0.27	1.25	0.15	0.21	0.39	0.19	0.69
Calendar year 1954: Max	3,420											
Min	9											
Mean	357											
Cfsm	0.325											
In.	4.41											
Water year 1954-55: Max	5,070											
Min	11											
Mean	351											
Cfsm	0.319											
In.	4.32											

* Discharge measurement made on this day.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

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 1955.

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.

Extremes.--Maximum discharge during year, 1,430 cfs Apr. 15 (gage height, 5.05 ft); no flow Oct. 1 to Nov. 16.

1951-55: 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, and for many days during summer and fall months of 1954.

Remarks.--Records fair.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 12 to Apr. 13, June 20 to July 15)

1.5	0	2.2	4.5	6.4	163
1.6	.2	2.3	7.2	3.8	321
1.7	.6	2.4	11	4.3	649
1.8	1.0	2.5	16	4.8	1,160
1.9	1.5	2.6	23	5.0	1,420
2.0	2.0	2.8	41		
2.1	2.8	3.1	88		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	2.7	12	44	41	21	32	32	334	176	34
2		0	3.1	14	41	40	22	27	*22	206	124	40
3		0	3.8	15	*39	40	26	22	12	127	84	105
4		0	4.0	16	39	39	34	19	6.7	81	51	436
5		0	4.5	20	41	38	37	15	3.6	57	34	452
6		0	8.2	25	50	37	40	12	2.3	48	23	361
7		0	6.1	28	103	35	49	9.1	1.8	39	18	706
8		0	6.4	25	152	33	57	6.4	1.6	34	20	754
9		0	8.2	22	179	32	75	4.3	1.1	35	11	498
10		0	11	20	199	30	83	3.3	1.8	34	4.6	387
11		0	14	22	163	29	107	2.6	53	60	2.4	292
12		0	15	22	114	29	192	2.0	129	145	1.6	199
13		0	22	22	90	29	266	1.8	151	224	1.4	157
14		0	26	23	74	29	886	1.6	122	206	1.6	195
15		0	25	24	65	28	1,340	2.4	72	151	1.8	287
16		0	25	27	60	27	909	6.8	40	126	3.0	353
17		.2	29	28	56	26	577	42	29	112	4.8	316
18		.4	38	31	54	25	369	112	40	82	5.3	235
19		.5	39	51	53	25	278	106	106	47	3.9	176
20		.6	31	56	51	29	213	56	336	39	2.2	143
21		.7	25	65	49	35	169	36	359	97	5.2	122
22		.9	22	70	48	42	143	48	311	202	6.3	107
23		1.4	20	72	46	46	119	67	326	209	1.9	94
24		1.5	17	92	48	49	101	86	265	185	1.9	90
25		1.6	16	92	46	42	86	116	174	148	28	81
26	(*)	1.8	14	101	45	37	74	103	109	116	194	67
27		1.8	14	105	42	31	64	83	88	75	359	72
28		3.0	13	96	42	28	*51	101	125	*53	266	90
29		*3.1	*13	75	-	25	44	92	*256	93	173	96
30		2.7	12	59	-----	22	37	77	359	171	99	101
31			12	50	-----	*21	-----	46	-----	217	50	
Total	0	20.2	500.0	1,580	2,013	1,019	6,491	1,338.3	3,534.9	3,753	1,757.9	7,070
Mean	0	0.67	16.1	44.5	71.9	32.9	216	43.2	118	121	56.7	236
Cfsm	0	0.0033	0.079	0.219	0.354	0.162	1.06	0.213	0.581	0.596	0.279	1.16
In.	0	0.003	0.09	0.25	0.37	0.19	1.18	0.25	0.65	0.69	0.32	1.29
Calendar year 1954: Max			1,920	Min	0	Mean	91.1	Cfsm	0.449	In.	6.08	
Water year 1954-55: Max			1,340	Min	0	Mean	79.1	Cfsm	0.390	In.	5.28	

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

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 (revised).

Records available.--May 1907 to June 1908, November 1939 to September 1955.

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.--16 years (1939-55), 597 cfs.

Extremes.--Maximum discharge during year, 5,820 cfs Feb. 6 (gage height, 5.3 ft); minimum, 88 cfs Oct. 8, 12, 13.

1907-8, 1939-55: 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, that of Oct. 8, 12, 13, 1954.

Revisions.--The maximum discharge for the water year 1941 has been revised to 7,530 cfs July 7, 1941 (gage height, 6.10 ft), superseding figure published in WSP 922.

Remarks.--Records good.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1940-41, superseding those published in WSP 892 and 922, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1940		1940-Con.		1940-Con.	
Feb. 18	1,790	Aug. 29	1,830	Dec. 29	1,780
19	1,700	30	14,800	30	970
20	980	31	2,930		
Apr. 19	1,830	Sept. 1	1,900	1941	
20	1,780	2	1,510	July 6	1,660
21	1,030	3	1,270	7	5,070
Aug. 13	10,800	4	1,130	8	2,180
14	3,100	5	1,060	9	1,200
15	1,500	Dec. 28	1,760	10	877

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
February 1940.....	14,763	1,790	196	509	2.46	2.65
April.....	20,268	1,830	415	676	3.27	3.65
August.....	45,054	14,800	181	1,453	7.02	8.09
September.....	20,950	1,900	372	698	3.37	3.76
Water year 1939-40.....	171,028	14,800	135	†467	2.26	30.72
December 1940.....	14,608	1,780	249	471	2.28	2.63
Calendar year 1940.....	188,949	14,800	146	516	2.49	35.94
July 1941.....	28,787	5,070	236	929	4.49	5.16
Water year 1940-41.....	156,809	5,070	162	430	2.08	28.18
Calendar year 1941.....	153,616	5,070	162	421	2.03	27.62

Revised peak discharge.--1940: Feb. 18 (5 p.m.) 3,250 cfs; Apr. 19 (8 p.m.) 4,840 cfs; Aug. 13 (2 p.m.) 17,200 cfs.

† Partly estimated.

Chattooga River near Clayton, Ga.--Continued

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.7	80	2.5	1,260
1.0	160	3.0	1,900
1.4	338	4.0	3,410
2.0	760		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	102	178	600	217	530	516	516	688	362	*448	312
2	115	105	160	523	285	495	523	*495	656	350	488	290
3	105	107	144	429	317	460	778	488	632	356	429	285
4	97	110	138	386	280	460	608	474	600	368	398	276
5	92	138	174	344	262	448	565	460	566	429	565	271
6	92	144	488	*333	3,120	435	704	448	565	398	460	266
7	90	123	285	312	2,250	423	1,000	429	565	481	460	262
8	88	115	209	290	1,080	392	769	423	558	435	474	243
9	90	112	234	280	805	380	680	410	572	404	429	247
10	92	110	312	296	672	392	624	398	544	380	502	243
11	90	110	230	417	688	398	1,340	398	712	558	417	238
12	88	110	200	344	586	380	1,260	404	572	749	435	238
13	90	110	217	306	509	386	1,270	688	516	2,070	368	234
14	90	107	276	276	509	448	2,040	632	488	686	368	225
15	142	110	225	266	481	423	1,330	530	467	680	492	217
16	147	164	196	266	467	404	1,070	1,500	454	572	736	213
17	105	327	185	252	516	398	931	2,040	441	509	488	209
18	97	185	306	247	467	386	859	1,260	423	474	417	200
19	97	167	317	301	435	404	796	922	441	544	386	196
20	92	238	243	280	417	417	752	769	753	467	448	192
21	92	200	200	257	404	417	728	1,160	680	509	448	189
22	92	150	209	296	410	1,970	712	2,700	572	488	441	182
23	90	147	189	290	1,170	1,070	704	2,540	530	448	404	178
24	90	160	178	266	850	805	696	1,580	502	448	441	178
25	90	141	171	247	736	712	760	1,270	467	495	368	289
26	90	131	164	234	632	736	648	1,110	454	474	338	271
27	*92	138	164	238	579	664	616	1,000	423	448	327	217
28	99	178	218	234	544	624	593	866	404	417	317	209
29	107	374	2,370	225	-	593	565	823	392	435	306	213
30	110	243	2,050	217	-----	558	544	760	*374	441	306	213
31	102	-	814	200	-----	*537	-----	*712	-----	417	*301	-
Total	3,058	4,656	11,444	9,452	19,688	17,145	24,981	28,225	16,031	16,492	13,205	6,996
Mean	98.6	155	369	305	703	553	833	910	534	532	426	233
Cfs/m	0.476	0.749	1.78	1.47	3.40	2.67	4.02	4.40	2.58	2.57	2.06	1.13
In.	0.55	0.84	2.05	1.70	3.54	3.08	4.48	5.07	2.88	2.96	2.38	1.26

Calendar year 1954: Max 4,040 Min 88 Mean 459 Cfs/m 2.22 In. 30.63
 Water year 1954-55: Max 3,120 Min 88 Mean 470 Cfs/m 2.27 In. 30.79

Peak discharge (base, 3,400 cfs).--Dec. 30 (1 a.m.) 4,370 cfs (4.54 ft); Feb. 6 (8 p.m.) 5,820 cfs (5.3 ft); Mar. 22 (9 a.m.) 4,100 cfs (4.40 ft); May 22 (7 a.m.) 3,410 cfs (4.00 ft).

* Discharge measurement made on this day.

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, Stevens County.

Drainage area.--31.4 sq mi.

Records available.--January 1943 to September 1955.

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.--12 years, 71.1 cfs.

Extremes.--Maximum discharge during year, 2,010 cfs Feb. 6 (gage height, 6.4 ft); minimum, 10 cfs Sept. 23, 24.

1943-55: 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. City of Toccoa diverted approximately 132,700,000 gal about 2 miles above station during period May 30 to Sept. 30 for municipal supply, equivalent to a mean discharge of 1.7 cfs at station.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 23

Feb. 24 to Sept. 30

1.4	10	2.5	192
1.7	36	3.0	350
2.0	77	4.1	770

1.4	10	1.8	45
1.6	23	2.0	77

Note.--Same as preceding table above 2.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	17	25	54	27	41	38	39	35	22	48	20
2	19	18	24	80	34	40	45	39	34	22	48	19
3	18	13	24	46	29	38	98	38	33	22	38	19
4	17	13	24	38	28	40	57	38	33	22	38	19
5	17	19	55	35	28	39	51	38	33	25	39	19
6	16	16	66	*33	754	39	57	37	33	*28	34	20
7	16	18	35	31	212	39	56	35	33	28	34	23
8	14	18	30	30	92	37	51	34	35	24	30	17
9	13	*18	41	29	67	35	46	33	32	26	41	17
10	12	18	36	38	56	39	45	33	33	26	*31	16
11	12	18	30	49	56	39	96	32	50	44	28	15
12	*12	18	28	38	47	39	79	34	35	43	26	15
13	17	18	34	34	48	48	99	64	32	45	25	15
14	18	17	31	31	47	56	115	48	31	43	25	15
15	18	18	29	31	42	48	86	39	30	34	30	14
16	13	34	27	30	41	45	72	52	30	31	31	14
17	16	27	27	28	44	43	63	54	28	28	25	13
18	16	24	40	30	40	40	60	44	28	38	24	13
19	14	25	32	44	37	43	57	40	33	34	23	12
20	13	35	29	37	36	41	54	*39	45	28	23	*12
21	14	24	27	35	36	40	52	56	38	43	22	12
22	14	22	26	41	41	74	52	70	33	38	*33	11
23	14	*25	25	37	*79	54	51	60	33	30	30	10
24	14	24	24	34	62	46	51	57	29	28	25	11
25	13	23	24	32	58	45	48	62	28	27	22	23
26	16	22	24	31	50	45	45	46	28	34	21	17
27	*15	24	24	30	45	40	44	43	26	26	20	15
28	16	36	26	29	43	39	44	39	*25	41	20	15
29	16	41	84	28	-	*39	43	39	23	66	19	15
30	16	28	84	27	-	39	40	38	25	67	18	16
31	17	-	47	27	-	39	-	35	-	44	19	-
Total	474	671	1,082	1,097	2,179	1,329	1,795	1,355	960	1,047	890	472
Mean	15.3	22.4	34.9	35.4	77.8	42.9	59.8	43.7	32.0	33.8	28.7	15.7
Cfsm	0.487	0.713	1.11	1.13	2.48	1.37	1.90	1.39	1.02	1.08	0.914	0.500
In.	0.56	0.80	1.28	1.30	2.58	1.58	2.12	1.60	1.14	1.24	1.05	0.56
Calendar year 1954:	Max	928		Min	12	Mean	58.0	Cfsm	1.85	In.	25.09	
Water year 1954-55:		Max	754		Min	10	Mean	36.6	Cfsm	1.17	In.	15.81

Peak discharge (base, 900 cfs).--Feb. 6 (4 p.m.) 2,010 cfs (6.4 ft).

* Discharge measurement made on this day.

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 (revised).

Records available.--April 1925 to September 1927, February 1940 to September 1955.

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.--17 years (1925-27, 1940-55), 1,959 cfs (unadjusted).

Extremes.--Maximum discharge during year, 18,200 cfs Feb. 7 (gage height, 8.67 ft); minimum daily, 188 cfs Oct. 18.

1925-27, 1940-55: Maximum discharge, 28,600 cfs Aug. 31, 1940 (gage height, 10.8 ft); minimum daily, that of Oct. 18, 1954.

Remarks.--Records good except those for period 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.

Cooperation.--Records of monthly reservoir contents furnished by Georgia Power Co.

Revisions (water years).--WSP 1142: 1926.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 1-25)

1.4	176	4.0	2,630
1.7	267	5.0	4,740
2.0	370	7.0	10,600
2.5	652	8.0	14,400
3.0	1,180		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,270	203	808	2,940	1,210	1,670	1,660	560	1,770	1,690	512	1,290
2	1,150	329	908	2,860	1,230	1,590	1,770	520	1,390	1,420	1,670	984
3	242	562	778	*808	1,440	1,360	1,160	800	1,290	327	1,420	1,130
4	225	667	1,160	674	1,630	1,260	520	1,100	999	320	1,450	318
5	362	1,000	410	2,600	1,260	1,440	2,400	1,600	399	302	1,550	278
6	752	662	1,470	1,890	4,900	578	2,300	1,700	1,060	706	1,750	258
7	630	300	1,760	1,240	1,400	724	1,800	1,200	1,910	1,230	1,220	708
8	648	258	1,120	1,470	4,780	1,310	2,500	560	1,630	1,930	398	1,030
9	270	792	1,480	441	2,650	1,110	1,700	500	1,480	1,450	1,480	1,500
10	248	670	1,580	481	2,090	1,130	1,500	1,000	1,540	367	1,030	1,310
11	190	545	1,310	2,680	1,800	1,110	600	1,100	1,980	770	1,980	552
12	238	542	375	1,180	2,250	2,210	2,800	1,300	535	2,280	1,640	288
13	510	638	605	1,060	718	1,120	2,700	1,400	*1,010	2,870	1,200	532
14	360	280	1,480	1,390	844	688	3,700	2,000	970	4,020	1,400	1,050
15	535	385	1,400	1,740	1,570	952	3,900	600	1,400	2,080	554	1,290
16	482	792	1,450	460	1,100	958	2,800	520	1,270	2,050	1,340	929
17	240	438	1,310	421	1,570	1,290	600	3,000	1,730	1,520	1,780	808
18	188	850	1,180	1,040	1,970	1,580	540	3,400	1,780	485	1,560	260
19	190	645	470	1,460	2,430	1,500	2,900	3,260	413	1,620	1,740	220
20	200	812	798	1,480	566	556	2,300	3,130	600	1,160	1,980	694
21	318	345	1,380	1,030	*521	582	1,400	2,720	1,500	*1,800	1,090	1,040
22	548	280	1,450	1,060	858	1,700	2,100	1,540	1,200	2,560	380	1,620
23	468	1,090	1,360	556	1,540	4,180	1,900	5,310	1,890	2,330	1,510	1,940
24	265	1,320	1,470	491	2,710	1,990	580	4,290	1,910	2,080	1,500	1,290
25	*233	1,010	1,170	1,030	2,590	*2,170	500	4,610	1,690	428	*1,360	297
26	278	322	362	779	1,780	2,170	2,100	4,340	386	776	807	299
27	245	560	445	731	602	530	1,700	3,130	588	982	1,530	1,210
28	752	478	1,170	1,080	800	982	1,600	3,190	1,120	1,570	323	798
29	415	478	1,630	1,050	-	1,590	1,700	2,860	1,110	2,360	274	1,110
30	348	1,060	5,520	408	-----	1,570	1,500	484	1,520	2,210	1,250	1,040
31	218	-----	4,790	740	-----	1,670	-----	1,680	-----	2,000	1,280	-----
Total	13,018	18,313	42,599	36,950	61,819	43,270	55,230	63,404	38,070	47,693	38,958	26,073
Mean	420	610	1,374	1,192	2,208	1,396	1,841	2,045	1,269	1,538	1,257	869
(†)	-83	-39	-148	-36	+353	+298	+131	+140	+49	-67	-242	-187

Adjusted for change in contents in Burton and Mathis Reservoirs

	Mean	Cfs	In.	Mean	Cfs	In.	Mean	Cfs	In.	Mean	Cfs	In.
Mean	337	571	1,226	1,156	2,561	1,694	1,972	2,185	1,318	1,471	1,015	682
Cfs	0.371	0.628	1.35	1.27	2.82	1.86	2.17	2.40	1.45	1.62	1.12	0.750
In.	0.43	0.70	1.56	1.46	2.94	2.14	2.42	2.77	1.62	1.87	1.29	0.84

	Observed				Adjusted							
Calendar year 1954:	Max	13,900	Min	188	Mean	1,562	Mean	1,556	Cfsm	1.71	In.	23.16
Water year 1954-55:	Max	14,400	Min	188	Mean	1,330	Mean	1,342	Cfsm	1.48	In.	20.04

Peak discharge (base, 10,000 cfs).--Feb. 7 (9 a.m.) 18,200 cfs (8.67 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.

Note.--No gage-height record Apr. 4 to May 18; discharge estimated on basis of recorded range in stage and power output at Yonah Dam.

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 2 $\frac{1}{4}$ miles east of Newry, Oconee County.

Drainage area.--455 sq mi.

Records available.--December 1939 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 625.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--15 years (1940-55), 1,155 cfs.

Extremes.--Maximum discharge during year, 17,500 cfs Feb. 6; maximum gage height, 19.19 ft Feb. 7; minimum discharge, 120 cfs Oct. 8; minimum gage height, 152 cfs Oct. 8, 14.

1939-55: Maximum discharge, 25,200 cfs Aug. 13, 1940; maximum gage height, 24.60 ft Aug. 13, 1940; minimum discharge, that of Oct. 8, 1954; minimum daily, that of 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	216	415	1,460	376	732	473	422	834	288	616	409
2	155	221	376	1,340	488	589	484	444	757	362	732	409
3	184	229	344	1,060	573	557	1,630	422	714	254	542	351
4	156	233	315	876	503	550	927	396	622	192	451	356
5	157	278	410	800	458	553	706	382	589	242	480	344
6	155	310	1,420	714	7,200	458	958	356	573	397	444	339
7	154	259	722	630	9,180	511	*1,800	310	550	382	451	339
8	152	*249	480	589	2,950	409	1,160	298	581	333	429	310
9	168	237	520	503	1,930	389	1,050	315	565	269	514	456
10	164	241	757	573	1,460	409	694	283	503	297	795	519
11	153	249	503	952	1,630	422	2,570	259	1,030	874	466	291
12	154	237	429	782	1,420	444	2,860	274	758	1,210	473	350
13	157	246	511	*639	1,060	338	2,100	1,010	581	2,020	376	359
14	152	241	630	589	1,030	640	2,290	1,040	473	1,550	446	333
15	356	248	488	534	952	542	2,270	777	466	*1,030	1,420	316
16	409	346	402	511	859	458	1,720	2,330	437	766	1,720	278
17	252	890	389	480	910	444	1,460	3,540	369	639	927	240
18	205	437	671	466	816	409	1,290	1,970	369	550	706	277
19	225	344	655	622	723	438	1,160	1,380	384	557	757	278
20	209	488	503	614	655	480	1,050	1,120	912	674	782	252
21	213	444	437	534	639	488	986	2,210	732	640	630	248
22	217	356	415	639	630	2,190	952	4,360	647	748	606	242
23	236	327	389	647	1,630	1,550	825	5,240	680	488	764	236
24	220	429	356	573	*1,340	1,030	791	2,610	589	625	766	208
25	190	339	344	511	1,250	850	1,050	*2,100	536	782	565	426
26	206	327	339	466	995	884	774	1,680	542	639	488	437
27	221	315	339	444	808	740	706	1,420	429	474	458	310
28	203	370	397	437	766	672	614	1,250	376	396	415	276
29	224	278	4,140	409	-	589	573	1,080	333	562	*396	286
30	250	568	5,530	361	-----	550	550	1,020	310	598	389	303
31	203	-	2,140	396	-----	473	---	910	---	518	376	--
Total	6,258	10,652	25,766	20,151	43,231	19,788	37,473	41,208	17,241	19,356	19,380	9,758
Mean	202	355	831	650	1,544	638	1,249	1,329	575	624	625	325
Cfsm	0.444	0.780	1.83	1.43	3.39	1.40	2.74	2.92	1.26	1.37	1.37	0.714
In.	0.51	0.87	2.11	1.65	3.53	1.61	3.06	3.37	1.41	1.58	1.58	0.80

Calendar year 1954: Max 12,000 Min 152 Mean 945 Cfsm 2.08 In. 28.18
 Water year 1954-55: Max 9,180 Min 152 Mean 740 Cfsm 1.63 In. 22.08

Peak discharge (base, 10,000 cfs).--Feb. 6 (12 p.m.) 17,500 cfs (19.19 ft at 2 a.m. Feb. 7).

* Discharge measurement made on this day.

Seneca River near Anderson, S. C.

Location.--Lat 34°30', long 82°50', on right bank a quarter of a mile downstream from bridge on State Highway 80, 1½ miles downstream from Deep Creek, 4 miles upstream from confluence with Tugaloo River, and 10½ miles west of Anderson, Anderson County.

Drainage area.--1,026 sq mi.

Records available.--October 1931 to September 1955 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.--24 years (1931-55), 2,001 cfs.

Extremes.--Maximum discharge during year, 18,400 cfs Feb. 7 (gage height, 11.74 ft); minimum, 194 cfs Oct. 13; minimum daily, 231 cfs Oct. 3.

1931-55: 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, about 90 cfs Nov. 18, 1934; minimum daily, 215 cfs Sept. 27, 1954.

Flood of Aug. 17, 18, 1928, reached a gage height of 25 ft, observed (discharge, 77,000 cfs, from rating curve extended above 18,000 cfs by logarithmic plotting).

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

Revisions.--WSP 757: Drainage area.

Rating table, water year 1954-55 (gage-height, in feet, and discharge, in cubic feet per second)

2.4	189	4.0	1,620
2.8	424	6.0	4,480
3.0	567	8.0	8,190
3.5	1,030	11.0	15,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	290	310	732	1,950	885	1,400	1,160	1,190	1,380	825	915	591
2	285	449	672	1,950	925	1,530	1,220	1,110	1,280	1,180	1,010	614
3	231	333	638	1,680	1,040	1,240	2,270	1,140	1,260	788	1,010	638
4	252	438	638	1,350	998	1,270	2,430	1,070	1,210	741	865	575
5	281	438	633	1,240	925	1,500	1,660	1,050	1,120	655	769	537
6	259	509	2,150	1,170	4,170	1,330	*1,620	1,070	1,130	825	788	599
7	298	486	1,870	1,090	15,900	1,360	2,710	1,010	1,140	936	890	599
8	*264	418	1,000	1,040	10,400	1,230	2,360	967	1,150	915	858	567
9	252	*474	825	946	3,720	1,130	1,950	a950	1,150	788	788	552
10	275	419	1,040	1,040	2,710	1,130	1,620	a900	1,130	590	845	700
11	258	465	978	1,540	2,290	1,210	1,770	a900	1,320	1,100	816	648
12	340	418	751	*1,520	2,570	1,210	4,890	a850	1,770	1,610	732	452
13	260	465	883	1,210	1,980	1,130	2,920	a1,200	1,210	1,740	699	591
14	307	445	1,120	1,070	1,750	1,360	4,020	a2,400	1,110	*2,500	655	530
15	262	414	992	998	1,650	1,480	3,570	a1,500	1,010	1,730	1,720	515
16	523	552	825	988	1,530	1,330	2,710	a2,000	978	1,240	2,570	490
17	407	849	760	978	1,560	1,300	2,220	*4,480	978	1,010	1,290	478
18	329	829	825	925	1,540	1,220	2,080	3,060	925	845	946	418
19	379	646	1,120	1,290	1,440	1,230	1,890	2,150	967	875	825	372
20	326	769	925	1,300	1,350	1,220	1,750	1,680	1,130	925	895	465
21	367	778	797	1,160	1,270	1,260	1,650	1,680	1,320	1,050	885	431
22	322	655	760	1,190	1,270	2,300	1,670	5,070	1,190	1,080	806	404
23	385	629	722	1,340	*1,550	3,390	1,620	6,940	1,190	988	816	378
24	353	622	752	1,250	2,360	2,020	1,410	4,120	1,260	864	1,130	404
25	310	633	646	1,130	2,020	1,650	1,740	3,130	1,080	1,130	845	378
26	385	552	646	1,070	1,750	1,680	1,530	2,430	1,170	1,070	723	604
27	333	591	663	1,010	1,560	1,610	1,380	2,150	1,040	946	663	575
28	388	656	689	998	1,460	1,420	1,330	1,880	946	828	614	486
29	340	1,060	1,380	958	-	1,350	1,290	1,670	865	950	*614	458
30	424	2,180	6,460	915	-----	1,320	1,220	1,560	855	1,080	630	472
31	398	-----	3,240	925	-----	1,240	-----	1,470	-----	935	591	-----
Total	10,083	18,482	35,912	37,199	72,473	44,850	61,650	62,777	34,284	32,740	28,193	15,521
Mean	325	616	1,158	1,200	2,588	1,447	2,055	2,025	1,143	1,056	909	517
Cfsm	0.317	0.600	1.13	1.17	2.52	1.41	2.00	1.97	1.11	1.03	0.886	0.504
In.	0.37	0.67	1.30	1.35	2.62	1.63	2.23	2.27	1.24	1.19	1.02	0.56

Calendar year 1954: Max 19,600 Min 215 Mean 1,502 Cfsm 1.46 In. 19.87

Water year 1954-55: Max 15,900 Min 231 Mean 1,244 Cfsm 1.21 In. 16.45

Peak discharge (base, 13,000 cfs).--Feb. 7 (8:15 p.m.) 18,400 cfs (11.74 ft).

* Discharge measurement made this day.

a No gage-height record; discharge estimated on basis of powerplant records at Portman Shoals.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 432.255 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--5 years, 3,789 cfs.

Extremes.--Maximum discharge during year, 34,000 cfs Feb. 7 (gage height, 10.04 ft); minimum, 477 cfs Oct. 12; minimum daily, 540 cfs Oct. 12.
1950-55: Maximum discharge, 54,400 cfs Mar. 12, 1952 (gage height, 12.74 ft); minimum, that of Oct. 12, 1954; minimum daily, that of Oct. 12, 1954.

Remarks.--Records good. Some regulation by Burton and Mathis Reservoirs (see p. 253 for monthly change in contents) and powerplants above station.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

(Shifting-control method used Dec. 8, Apr. 15 to May 23)

Oct. 1 to Dec. 8, Feb. 7 to May 23 Dec. 9 to Feb. 6, May 24 to Sept. 30

1.8	505	4.0	4,350	2.1	673	4.0	3,740
2.0	642	5.0	7,850	2.5	1,040	5.0	6,710
2.5	1,140	7.0	16,600	3.0	1,690	6.0	10,500
3.0	1,910	10.0	34,000				
3.5	2,970						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,870	688	2,090	6,010	2,090	3,460	3,040	1,820	3,100	2,380	1,790	2,000
2	1,750	738	2,020	5,360	2,340	3,390	3,750	1,490	2,710	2,610	2,780	1,800
3	861	951	1,940	3,120	2,530	2,910	3,360	1,980	2,590	1,410	2,670	1,810
4	569	1,390	2,100	2,470	2,840	2,800	4,030	2,240	2,250	1,050	2,410	1,210
5	592	1,700	1,600	3,660	2,490	3,230	4,720	2,530	1,690	1,060	2,470	990
6	968	1,530	4,600	3,440	7,100	2,360	*4,470	2,720	1,460	1,330	2,610	940
7	1,130	1,160	5,090	2,710	32,700	2,360	5,270	2,320	3,320	1,700	2,260	1,340
8	1,090	875	2,750	2,730	19,700	2,970	5,900	1,430	2,610	2,910	1,710	1,630
9	878	1,230	2,830	1,850	7,910	2,670	4,440	1,250	2,730	2,320	2,140	1,890
10	620	*1,420	2,770	1,640	5,530	2,580	3,940	1,790	2,480	1,310	2,090	2,190
11	563	1,220	3,000	4,100	4,830	2,510	2,740	1,940	3,140	1,160	2,880	1,540
12	*540	1,180	1,680	*3,520	5,430	3,820	8,680	2,210	2,350	4,010	2,460	902
13	718	1,360	1,540	2,590	3,250	3,200	6,690	2,470	2,210	4,310	2,110	1,010
14	877	1,150	2,890	2,740	2,750	2,340	8,700	4,500	1,960	7,170	2,110	1,640
15	828	958	2,930	2,980	3,660	2,900	7,910	2,240	2,370	*4,120	2,600	1,750
16	990	1,410	2,810	1,880	3,050	2,690	6,060	1,930	2,190	3,450	4,860	1,590
17	1,150	1,480	2,340	1,620	3,380	2,780	4,130	6,570	2,520	2,910	3,520	1,240
18	670	2,220	2,560	2,080	3,510	3,420	2,850	5,880	2,650	1,670	2,760	1,020
19	635	1,620	2,020	3,230	4,540	3,220	4,920	5,200	1,550	2,340	2,690	673
20	641	2,110	1,940	3,290	2,360	2,300	4,420	4,410	1,370	2,300	a3,600	1,030
21	658	1,630	2,260	2,630	2,080	2,200	3,400	4,620	2,780	2,640	a2,400	1,370
22	965	1,260	2,600	2,470	2,280	3,030	4,190	4,530	2,360	3,780	a1,800	2,040
23	920	1,910	2,500	2,240	*2,740	8,020	3,810	11,000	2,640	3,360	a2,000	2,400
24	978	2,350	2,410	2,040	4,960	5,360	2,980	*8,540	3,200	3,120	a3,000	1,750
25	675	2,060	2,360	2,360	5,280	4,190	2,260	7,250	2,960	1,700	a2,400	1,030
26	675	1,480	1,460	2,150	4,210	4,800	3,810	6,360	1,700	1,960	a2,000	776
27	742	1,370	1,220	1,950	2,660	2,660	3,330	5,180	1,430	2,120	2,250	1,710
28	1,090	1,660	1,830	2,100	2,380	2,240	3,140	5,080	2,110	2,140	1,410	1,350
29	1,080	2,020	2,390	2,390	-	3,640	3,000	4,860	1,860	3,410	980	1,610
30	962	2,360	9,560	1,630	-----	3,360	2,850	2,260	2,170	3,510	1,650	1,600
31	793	-	8,530	1,740	-----	3,140	-----	2,930	-	3,280	*2,080	-----
Total	27,478	45,070	88,620	84,720	148,580	100,550	132,790	120,590	70,460	82,540	74,490	43,671
Mean	866	1,502	2,859	2,733	5,306	3,244	4,426	3,890	2,349	2,663	2,403	1,456
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954: Max		35,200		Min	540	Mean	3,417	Cfsm	1.53	In.	20.78	
Water year 1954-55: Max		32,700		Min	540	Mean	2,793	Cfsm	1.25	In.	16.99	

Peak discharge (base, 22,000 cfs).--Feb. 7 (1:45 p.m.) 34,000 cfs (10.04 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 station near Calhoun Falls.

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, 3½ miles northwest of Calhoun Falls, Abbeville County, and 3½ miles upstream from mouth.

Drainage area.--267 sq mi.

Records available.--February 1950 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 403.04 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--5 years, 222 cfs.

Extremes.--Maximum discharge during year, 2,700 cfs Feb. 6 (gage height, 4.92 ft); minimum, 7 cfs Oct. 4; minimum daily, 14 cfs Oct. 10.
1950-55: 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, that of Oct. 4, 1954; minimum daily, 9 cfs Sept. 21, 22, 1954.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Lake Secession (usable capacity, about 1,742,000,000 cu ft).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.7	11	1.6	183
.8	18	2.0	354
.9	28	3.0	925
1.0	41	4.0	1,700
1.3	98	5.0	2,760

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	22	70	178	166	367	139	102	108	99	144	154
2	45	52	68	266	171	379	109	111	108	80	151	166
3	15	54	69	166	*164	378	81	166	106	62	156	172
4	17	57	66	121	165	375	88	168	93	25	*164	90
5	43	66	42	111	165	338	116	171	66	65	169	59
6	44	60	327	108	1,320	94	122	170	71	180	146	104
7	44	24	120	104	1,840	219	134	160	108	110	93	115
8	46	42	94	102	740	377	123	164	133	105	145	116
9	44	59	94	70	625	373	102	196	110	86	172	112
10	14	*59	99	109	576	372	72	173	106	70	a160	106
11	28	60	94	265	418	366	104	171	95	74	a160	72
12	46	61	70	147	537	340	135	184	69	177	a160	71
13	46	59	65	125	196	164	142	219	72	152	a150	118
14	47	22	111	118	256	241	382	183	102	151	a85	114
15	47	30	101	113	583	387	195	112	*102	120	a160	112
16	48	74	*95	84	379	401	127	93	102	92	a260	111
17	15	78	96	87	369	386	96	121	105	144	a200	106
18	19	68	100	125	387	375	101	118	85	89	148	68
19	49	66	87	229	388	348	129	115	65	101	149	66
20	49	69	68	168	171	118	124	113	78	124	a160	113
21	49	28	96	184	218	233	128	98	150	168	a90	115
22	50	33	96	194	379	380	126	82	122	182	a110	*109
23	49	68	92	124	379	380	107	80	108	96	a150	110
24	15	71	96	125	387	378	78	128	182	70	a160	105
25	20	68	95	174	381	*372	104	238	99	76	a160	66
26	48	67	62	173	373	327	175	140	68	104	143	67
27	48	66	56	173	161	87	172	128	58	103	136	109
28	49	34	94	170	206	93	175	99	100	164	79	113
29	51	71	94	169	-	128	*172	68	106	224	95	114
30	50	78	-	104	-	128	160	73	100	121	149	108
31	16	-	96	105	-	126	-	113	-	107	143	-
Total	1,187	1,664	2,909	4,491	11,901	9,028	4,018	4,257	2,977	3,521	4,547	3,161
Mean	38.3	55.5	93.8	145	425	291	134	137	99.2	114	147	105
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 1,990 Min 9 Mean 199 Cfsm - In. -
Water year 1954-55: Max 1,840 Min 14 Mean 147 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 (revised).

Records available.--October 1942 to September 1955

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.--13 years, 50.1 cfs.

Extremes.--Maximum discharge during year, 840 cfs Feb. 7 (gage height, 6.9 ft); minimum, 1.0 cfs Oct. 5, 6.

1942-55: 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 good.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 29 to Nov. 19)

Oct. 1 to Dec. 5				Dec. 6 to Sept. 30			
0.8	0.8	3.0	192	0.9	2.4	1.5	33
.9	3.0	4.0	332	1.0	5.3	2.0	76
1.0	6.4	5.0	490	1.1	9.5	3.0	192
1.1	11	6.0	666	Note.--Same as preceding table above 3.0 ft.			
1.5	35	7.0	860				
2.0	80						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	5.7	16	44	26	30	25	21	17	*12	20	29
2	1.8	6.1	15	114	30	30	25	20	15	12	18	15
3	1.8	6.1	14	*54	29	29	102	20	15	11	14	13
4	1.6	7.2	14	41	26	28	52	19	14	10	13	12
5	1.0	9.8	29	35	25	47	39	19	14	16	13	12
6	1.0	8.1	170	32	171	36	41	18	14	12	12	12
7	1.2	6.8	45	28	682	57	47	16	14	10	12	12
8	2.0	6.8	30	26	146	37	36	16	15	12	21	10
9	2.3	*6.4	27	25	71	33	32	15	14	13	15	*8.7
10	2.5	6.1	26	37	55	33	31	15	13	11	13	8.7
11	2.5	6.1	23	108	51	33	50	14	15	33	*11	8.7
12	2.3	6.4	22	56	43	32	53	14	14	43	10	8.2
13	2.3	6.4	32	40	39	30	41	25	12	24	9.5	7.8
14	2.0	6.8	32	34	38	37	57	41	13	40	19	8.2
15	2.3	6.8	25	32	37	31	47	32	12	22	41	7.8
16	2.3	9.8	23	32	35	30	39	30	12	17	82	7.0
17	2.3	14	22	30	36	30	35	25	11	15	29	6.6
18	2.8	9.3	24	30	33	29	33	*21	10	13	20	6.1
19	*3.3	9.3	22	95	32	32	30	20	17	12	17	6.1
20	3.3	20	21	53	31	35	30	19	18	12	17	6.1
21	3.7	12	20	42	*30	32	28	34	105	24	14	5.7
22	3.7	*9.3	20	45	29	38	28	33	36	70	14	5.3
23	3.7	12	20	39	30	33	27	30	26	26	12	4.7
24	3.7	14	19	36	35	30	26	27	41	20	12	4.7
25	*4.0	10	18	33	41	*29	26	67	22	17	11	5.7
26	4.0	9.3	18	31	32	28	24	32	19	16	10	5.7
27	4.0	9.8	18	31	31	26	23	*25	17	15	10	5.7
28	4.0	38	18	30	30	26	23	21	15	14	9.5	5.7
29	4.4	53	19	28	-	26	22	20	14	20	9.1	*5.7
30	4.7	20	21	27	-----	25	22	19	14	22	6.2	6.1
31	5.0	---	19	26	-----	25	-----	18	-----	21	6.7	-----
Total	87.5	351.4	842	1,314	1,894	997	1,094	746	588	615	525.0	260.0
Mean	2.82	11.7	27.2	42.4	67.6	32.2	36.5	24.1	19.6	19.8	16.9	8.67
Cfsm	0.079	0.327	0.760	1.18	1.89	0.899	1.02	0.673	0.547	0.553	0.472	0.242
In.	0.09	0.36	0.68	1.36	1.97	1.04	1.14	0.78	0.61	0.64	0.54	0.27
Calendar year 1954: Max	539			Min 1.0		Mean 25.3		Cfsm 0.707	In. 9.42			
Water year 1954-55: Max	682			Min 1.0		Mean 25.5		Cfsm 0.712	In. 9.68			

Peak discharge (base, 700 cfs).--Feb. 7 (12 m.) 840 cfs (6.9 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 1955. 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 adjustment of 1936. Prior to March 1930, chain gage at railroad bridge 1 mile upstream at different datum.

Average discharge.--19 years (1896-97, 1930-31, 1938-55), 4,876 cfs.

Extremes.--Maximum discharge during year, 40,200 cfs Feb. 7 (gage height, 6.89 ft); minimum, 535 cfs Oct. 13; minimum daily, 636 cfs Oct. 12.
1896-1900, 1903, 1930-32, 1938-55: Maximum discharge, 96,500 cfs Aug. 13, 1940 (gage height, 11.52 ft), from rating curve extended above 50,000 cfs by velocity-area studies and logarithmic plotting; minimum, 492 cfs Sept. 21, 1954; minimum daily, that of 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. 253 for monthly change in contents) and powerplants above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 7 to Apr. 15)

0.5	624	3.0	7,550
1.0	1,260	4.0	13,000
1.5	2,100	5.0	20,500
2.0	3,490	7.0	40,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,800	829	2,260	7,250	2,270	3,910	3,520	2,920	3,670	2,560	2,470	2,290
2	1,870	767	2,040	7,410	2,740	4,100	3,990	2,150	3,190	2,900	2,530	2,100
3	1,400	1,000	1,980	4,450	*2,780	3,740	3,550	2,420	2,990	2,240	2,860	2,080
4	641	1,210	1,800	3,080	3,140	3,490	4,790	3,200	2,650	1,320	*2,660	1,820
5	671	1,530	1,880	3,780	2,880	3,890	5,020	3,240	2,230	1,360	2,800	1,240
6	810	1,740	4,420	4,060	8,910	3,140	4,930	3,510	1,780	1,510	2,750	1,200
7	1,190	1,460	5,550	3,140	38,100	2,930	5,440	3,310	3,350	1,870	2,450	1,340
8	1,140	1,100	3,120	3,000	26,500	3,630	6,520	2,590	3,080	2,910	2,290	1,710
9	1,140	983	3,010	2,510	10,700	3,460	5,060	2,000	3,090	2,650	2,120	1,870
10	707	1,560	2,790	1,980	6,460	3,240	4,580	2,220	2,850	1,950	2,450	2,340
11	659	*1,380	3,280	4,720	5,560	3,340	3,420	2,710	3,450	1,370	2,910	2,040
12	*636	1,340	2,340	4,790	5,840	4,230	8,130	2,900	3,020	4,120	2,830	1,370
13	734	1,310	1,710	3,140	4,090	3,970	7,870	3,490	2,470	5,070	2,510	1,130
14	994	1,400	2,650	3,010	3,200	3,170	9,180	4,980	2,330	8,180	2,100	1,600
15	896	1,060	3,150	3,360	4,050	3,540	10,000	3,960	2,540	5,250	2,420	1,880
16	1,030	1,240	*2,990	2,590	3,690	3,490	7,250	2,660	*2,560	3,840	5,900	1,960
17	1,190	1,760	2,600	1,940	3,840	3,490	5,350	8,220	2,780	3,280	4,410	1,490
18	896	1,830	2,720	2,210	4,120	4,060	3,890	8,520	2,980	2,280	3,160	1,520
19	750	1,810	2,340	3,850	4,990	4,000	5,420	6,370	2,430	2,110	3,070	931
20	754	1,920	2,020	4,140	3,100	3,210	5,220	5,650	1,750	2,660	3,830	895
21	718	1,780	2,380	3,300	2,490	2,720	4,330	5,620	2,940	2,750	2,680	1,490
22	767	1,430	2,790	3,030	2,700	3,340	4,790	5,150	3,000	4,230	2,040	*1,980
23	1,160	1,540	2,670	2,880	3,230	8,080	4,710	10,900	2,830	3,790	2,220	2,340
24	1,110	2,180	2,560	2,490	5,220	*6,400	3,680	11,200	*3,820	3,360	3,150	2,030
25	879	2,060	2,570	2,550	5,950	4,930	2,840	6,550	3,410	2,350	2,640	1,790
26	779	1,880	2,050	2,750	4,890	5,360	4,260	7,770	2,520	2,040	2,300	928
27	879	1,390	1,510	2,360	3,440	3,380	4,260	6,300	1,750	2,270	2,110	1,460
28	854	1,550	1,730	2,360	2,790	2,620	*3,590	5,790	2,140	2,250	2,110	1,720
29	1,380	2,130	2,460	2,820	---	3,780	3,870	5,730	2,170	3,540	1,290	1,600
30	1,060	2,570	8,060	2,110	---	3,720	3,540	2,950	2,290	3,720	1,450	1,800
31	1,030	---	10,800	1,890	---	3,530	---	2,960	---	3,600	2,390	---
Total	30,304	45,719	94,310	102,980	177,670	119,890	153,160	148,220	82,040	93,350	82,900	49,944
Mean	978	1,524	3,042	3,322	6,345	3,667	5,105	4,781	2,735	3,011	2,674	1,665
Cfs/m	---	---	---	---	---	---	---	---	---	---	---	---
In.	---	---	---	---	---	---	---	---	---	---	---	---

Calendar year 1954: Max 38,400 Min 636 Mean 3,809 Cfs/m 1.32 In. 17.97
Water year 1954-55: Max 38,100 Min 636 Mean 3,234 Cfs/m 1.12 In. 15.27

Peak discharge (base 25,000 cfs)--Feb. 7 (2 p.m.) 40,200 cfs (6.89 ft).

* Discharge measurement made on this day.

SAVANNAH RIVER BASIN

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 1955.

Gage.--Water-stage recorder. Datum of gage is 750.41 ft above mean sea level, datum of 1929 (levels by U. S. Soil Conservation Service).

Extremes.--1954: Maximum discharge during period May to September, 429 cfs June 1 (gage height, 4.57 ft); minimum, 5.8 cfs Sept. 25 (gage height, 1.34 ft).

1954-55: Maximum discharge during water year, 1,060 cfs Feb. 6 (gage height, 8.33 ft); minimum, 4.8 cfs Sept. 22, 23 (gage height, 1.05 ft).

Remarks.--Records good.

Discharge, in cubic feet per second, 1954

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	30	78	14	11	8.2	16	24	*26	14	*8.5	7.5
2	40	57	14	10	8.0	17	23	24	13	8.5	7.8
3	*50	28	14	10	*7.8	18	23	22	20	17	7.5
4	35	25	14	10	7.5	19	22	19	17	11	7.0
5	*26	24	14	9.8	7.5	20	22	18	14	10	7.0
6	25	22	15	10	7.2	21	*22	18	14	10	6.8
7	24	22	*13	9.5	6.8	22	21	17	*13	10	*6.8
8	24	21	14	9.8	7.0	23	20	17	14	9.8	6.6
9	24	20	14	10	7.0	24	20	16	15	9.8	6.4
10	24	19	14	9.5	7.5	25	20	16	12	9.0	6.4
11	24	21	13	9.0	7.5	26	20	16	12	11	6.4
12	23	20	13	9.0	7.5	27	20	15	12	9.8	6.2
13	24	19	13	9.0	7.2	28	20	15	12	19	6.2
14	32	26	19	8.8	7.2	29	21	14	11	11	6.2
15	26	28	16	8.8	7.0	30	20	14	12	9.2	6.6
						31	19	-	12	8.2	-
Total.....						768		697	431	316.0	212.0
Mean.....						24.8		23.2	13.9	10.2	7.07
Cubic feet per second per square mile.....						1.28		1.20	0.720	0.528	0.366
Runoff in inches.....						1.48		1.34	0.83	0.61	0.41

* Discharge measurement made on this day.

Note.--Result of discharge measurement Apr. 14, 1954, 34 cfs; Apr. 29, 1954, 62 cfs.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	8.5	11	31	15	13	17	14	11	8.2	17	8.0
2	6.6	8.5	10	29	15	14	21	14	11	8.2	15	*7.8
3	6.4	9.0	10	22	15	12	25	14	11	8.0	12	7.8
4	6.4	9.5	10	*19	14	13	24	14	11	8.0	99	7.6
5	6.4	11	43	18	14	14	22	14	10	11	32	7.6
6	6.6	9.2	28	17	*552	16	25	14	10	9.0	16	*7.8
7	6.6	9.2	16	16	120	a16	*24	14	11	8.4	14	7.8
8	7.0	9.0	14	16	41	a14	20	14	10	8.0	23	7.1
9	7.0	8.8	18	15	31	a14	20	*13	9.7	8.7	28	8.6
10	6.8	9.0	16	21	26	a14	20	12	10	7.7	*13	6.9
11	6.8	8.2	14	27	28	a14	41	12	21	21	12	6.7
12	7.0	8.5	14	20	23	*83	*31	12	12	21	11	6.5
13	6.8	8.2	17	18	21	82	29	*25	10	19	11	6.5
14	6.8	8.5	*15	17	20	37	*38	18	*10	*18	10	6.2
15	7.5	8.5	14	16	19	30	29	14	10	12	12	6.0
16	7.0	12	14	16	*18	28	25	17	9.7	10	11	5.8
17	7.5	10	14	15	20	26	22	15	9.4	10	9.8	5.6
18	7.5	9.8	17	17	17	24	20	14	10	9.5	9.5	5.6
19	7.2	10	15	27	16	24	19	13	11	*9.2	9.2	5.6
20	7.5	12	14	20	16	24	18	13	10	9.2	9.2	*5.4
21	7.5	9.8	14	16	14	26	19	14	11	15	8.9	5.4
22	7.5	9.2	13	20	15	28	18	20	11	11	8.3	5.4
23	7.5	12	13	18	20	24	17	12	9.2	*8.0	5.2	
24	7.5	11	12	17	22	23	20	17	10	9.5	8.0	5.4
25	7.2	10	12	16	21	22	18	19	10	36	7.6	6.5
26	7.2	9.8	12	16	18	24	17	15	10	17	7.6	*6.0
27	7.0	11	12	16	17	21	16	14	9.4	11	7.6	5.6
28	7.2	18	13	15	14	21	15	13	8.7	12	7.6	5.8
29	8.0	16	26	15	-	*19	15	13	*8.7	15	7.6	5.8
30	7.5	*12	23	15	-----	18	14	12	8.7	24	7.1	5.8
31	8.0	-	18	15	-----	18	-----	12	-----	14	7.3	-
Total	220.7	306.2	492	578	1,184	736	670	456	317.3	397.8	459.3	193.8
Mean	7.12	10.2	15.9	18.6	42.3	23.7	22.3	14.7	10.6	12.8	14.8	6.46
Cfsm	0.369	0.528	0.824	0.964	2.19	1.23	1.16	0.762	0.549	0.663	0.767	0.335
In.	0.43	0.59	0.95	1.11	2.28	1.42	1.29	0.88	0.61	0.76	0.88	0.37

Calendar year 1954: Max -

Min -

Mean -

Cfsm -

In. -

Water year 1954-55: Max 552

Min 5.2

Mean 16.5

Cfsm 0.855

In. 11.57

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of partial recorder graph and records for station near Lavonia.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 680.36 ft above mean sea level, datum of 1929 (levels by Soil Conservation Service).

Extremes.--1954: Maximum discharge during period May to September, 490 cfs June 1 (gage height, 9.20 ft); minimum, 11 cfs Sept. 28.

1954-55: Maximum discharge during water year, 1,500 cfs Feb. 7 (gage height, 11.80 ft); minimum, 7.2 cfs Sept. 22-24.

Flood of 1933 reached a stage of 17.5 ft, and flood of 1950 reached a stage of 15.5 ft, from information by local residents.

Remarks.--Records good.

Discharge, in cubic feet per second, 1954

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	70	158	26	22	25	16	50	*51	26	17	17
2	90	*236	26	20	23	17	48	57	24	*15	18
3	120	*76	28	20	*22	18	46	49	23	51	17
4	58	58	32	18	21	19	46	43	37	31	16
5	*57	50	28	19	21	20	45	40	24	38	15
6	54	49	30	19	21	21	*44	38	23	26	15
7	52	46	*26	19	19	22	43	35	*26	23	15
8	51	43	26	17	18	23	41	35	24	21	*14
9	49	42	28	21	18	24	39	34	33	21	14
10	48	39	28	20	20	25	38	32	25	21	14
11	46	42	26	17	20	26	39	31	23	20	14
12	46	58	25	17	27	27	40	29	25	21	14
13	50	42	24	19	16	28	40	28	23	92	12
14	71	62	27	17	17	29	48	27	21	47	12
15	55	94	36	18	17	30	40	27	21	30	14
						31	35	-	23	26	-
Total.....							1,621	1,641	815	783	516
Mean.....							52.3	54.7	26.3	25.3	17.2
Cubic feet per second per square mile.....							1.25	1.30	0.626	0.602	0.410
Runoff in inches.....							1.44	1.45	0.72	0.69	0.46

* Discharge measurement made on this day.

Note.--Result of discharge measurement Apr. 30, 1954, 67 cfs

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	20	28	102	35	48	39	31	23	16	48	12
2	14	20	27	100	43	55	44	30	21	16	46	12
3	14	20	24	62	42	57	30	19	16	27	13	
4	14	22	24	*52	34	41	54	30	19	16	50	14
5	13	27	107	46	32	46	48	29	19	23	124	14
6	14	23	143	43	*536	54	57	28	19	27	39	*15
7	13	22	55	40	*831	54	75	27	19	18	30	14
8	14	22	44	38	126	44	51	25	19	19	25	13
9	14	21	54	38	82	40	47	*24	19	24	69	14
10	14	21	48	60	67	48	46	24	20	18	*29	14
11	14	21	41	83	69	*48	78	26	49	38	24	14
12	14	21	39	54	53	66	66	26	25	*40	24	14
13	*14	21	52	48	50	122	60	40	20	62	22	12
14	13	21	47	43	48	87	78	51	*19	63	20	12
15	16	22	42	43	47	56	63	33	19	31	24	11
16	14	31	37	41	*45	56	55	36	19	26	26	10
17	15	31	37	38	*51	53	50	35	18	23	20	9.2
18	16	26	47	40	44	48	46	30	18	20	18	8.6
19	16	26	39	89	41	51	44	29	24	*19	16	9.2
20	16	35	35	52	38	48	41	*27	21	22	20	*8.6
21	17	25	34	47	39	48	44	34	23	40	20	8.0
22	17	23	34	53	39	79	46	50	24	30	17	7.6
23	17	31	34	46	52	53	41	45	38	23	*16	7.6
24	17	29	35	42	54	48	44	35	39	22	14	8.6
25	17	24	31	40	53	46	42	54	27	42	13	12
26	17	23	31	39	47	51	37	*34	24	52	12	12
27	17	27	31	38	46	41	36	31	20	24	12	11
28	17	42	33	36	44	*40	34	26	*20	24	11	12
29	20	*44	52	35	-	39	34	26	*19	22	11	12
30	18	30	65	35	-----	38	32	25	18	45	10	14
31	18	-	46	33	-----	38	-----	24	-----	32	11	-
Total 479 771 1,394 1,556 2,683 1,606 1,528 993 681 893 846 348.4												
Mean 15.4 25.7 45.0 50.2 95.8 51.8 50.9 32.0 22.7 28.8 27.3 11.6												
Cfsm 0.367 0.612 1.07 1.20 2.28 1.23 1.21 0.762 0.540 0.686 0.650 0.276												
In. 0.42 0.68 1.23 1.38 2.37 1.42 1.35 0.88 0.60 0.79 0.75 0.31												

Calendar year 1954: Max -

Min -

Mean -

Cfsm -

In. -

Water year 1954-55: Max 831

Min 7.6

Mean 37.7

Cfsm 0.898

In. 12.18

Peak discharge (base, 500 cfs).--Feb. 7 (6 a.m.) 1,500 cfs (11.80 ft).

* Discharge measurement made on this day.

Toms Creek near Martin, Ga.

Location.--Lat 34°28', long 83°13', on left bank 40 ft 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 1955.

Gage.--Water-stage recorder. Datum of gage is 681.66 ft above mean sea level (levels by Soil Conservation Service).

Extremes.--1954: Maximum discharge during period June to September, 102 cfs Aug. 20 (gage height, 7.27 ft); minimum, 2.0 cfs Sept. 19, 20.

1954-55: Maximum discharge during water year, 700 cfs Feb. 6 (gage height, 8.40 ft); minimum, 1.6 cfs Sept. 22.

Remarks.--Records good except those above 80 cfs, which are fair. Storm runoff at gage affected during short periods by two small flood-detention reservoirs (combined Capacity of reservoirs, 480 acre-ft).

Discharge, in cubic feet per second, 1954

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	-	5.1	5.1	4.0	11	-	5.3	3.4	3.4	21	5.1	3.7	21	2.5
2	-	6.2	3.8	3.8	12	-	4.9	3.4	2.8	22	4.9	*5.1	6.8	2.5
3	-	7.3	3.6	*3.8	13	-	4.0	3.6	2.8	23	4.9	4.2	6.0	*2.5
4	-	6.5	3.1	3.7	14	-	5.5	3.2	2.6	24	4.7	3.7	5.3	2.5
5	-	5.1	3.1	3.6	15	-	6.2	5.8	2.8	25	4.4	3.8	5.5	2.5
6	-	4.9	3.6	3.1	16	-	5.1	4.7	3.1	26	4.4	3.8	5.1	2.5
7	-	*4.2	3.7	3.1	17	6.8	4.7	*3.2	3.2	27	4.2	3.8	4.7	2.5
8	-	3.8	4.0	3.1	18	*7.3	4.2	7.9	3.1	28	4.2	4.2	6.8	2.5
9	-	4.9	5.1	3.2	19	6.0	4.4	8.7	2.6	29	4.2	3.7	9.0	2.5
10	-	6.5	4.0	3.6	20	5.3	3.7	2.6	2.3	30	4.2	3.6	5.1	2.6
										31	-	6.2	4.4	-
Total.....											-	148.3	188.7	88.8
Mean.....											-	4.78	6.09	2.96
Cubic feet per second per square mile.....											-	0.464	0.591	0.287
Runoff in inches.....											-	0.53	0.68	0.32

* Discharge measurement made on this day.

Note.--Results of discharge measurements made prior to June 17: Apr. 15, 13.7 cfs; June 1, 72.2 cfs; June 2, 80.4 cfs; June 2, 21.3 cfs.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	3.6	5.1	26	9.6	11	9.3	7.1	4.2	3.4	20	3.3
2	2.5	4.0	4.7	30	14	13	15	6.6	4.2	3.4	14	3.1
3	2.5	3.8	4.0	15	10	10	23	6.4	*3.8	3.1	6.0	3.1
4	2.4	4.4	4.0	12	9.3	10	13	6.4	3.4	3.1	9.1	3.1
5	2.4	*6.5	4.3	*10	9.6	9.8	12	*6.2	3.4	3.6	18	3.3
6	2.8	4.0	6.1	9.3	26.0	14	19	5.5	3.4	3.6	6.0	*3.3
7	3.6	3.8	11	7.9	*11.5	12	25	5.5	3.6	3.4	4.7	2.9
8	2.8	3.8	6.8	7.6	26	9.8	14	5.3	3.6	8.4	4.4	2.5
9	3.0	4.0	12	8.2	16	9.3	12	5.1	3.4	12	5.5	2.7
10	2.8	11	9.3	20	13	14	12	4.9	4.0	4.9	*4.0	2.7
11	2.8	4.0	7.0	27	14	12	18	4.9	14	14	3.8	2.7
12	2.8	4.0	6.8	14	12	21	14	5.5	5.5	13	5.5	3.1
13	*2.8	3.8	14	11	11	20	13	13	4.4	31	4.5	3.1
14	2.4	3.8	10	10	11	14	15	14	*4.2	3.6	4.2	2.9
15	2.3	4.2	8.2	10	11	12	12	7.8	3.8	9.0	6.9	2.7
16	2.3	9.6	7.0	10	10	14	11	9.0	3.6	6.6	7.3	2.5
17	2.5	7.3	7.3	9.0	*11	12	10	8.8	3.6	6.4	4.7	2.5
18	2.6	6.2	11	11	10	12	10	7.3	3.6	5.5	4.0	2.3
19	2.8	6.8	7.9	29	9.8	13	9.8	6.0	5.5	*4.7	4.0	2.5
20	2.5	10	7.0	14	9.6	12	9.6	*5.5	4.4	4.5	10	2.5
21	2.6	5.8	6.8	13	9.6	12	11	12	4.4	22	7.3	*2.3
22	2.6	4.7	7.9	16	9.8	25	11	16	4.2	9.3	4.5	2.0
23	2.6	8.4	14	12	12	14	9.8	10	25	6.0	4.2	2.0
24	2.6	6.0	4.9	11	14	12	11	9.8	19	5.3	3.8	2.1
25	*2.8	4.7	4.7	10	12	11	9.8	13	6.4	6.6	*3.1	2.9
26	2.8	4.2	5.1	10	10	13	8.6	8.6	4.9	7.1	2.9	2.7
27	3.0	6.5	5.1	10	10	10	8.3	6.6	4.4	5.3	2.9	2.7
28	3.2	13	5.8	9.9	*10	*10	8.0	5.5	4.2	4.5	2.7	2.9
29	4.0	*13	14	9.8	-	9.8	7.6	5.5	*3.8	4.5	2.7	2.9
30	3.6	6.0	14	9.6	-----	9.6	7.3	5.3	3.4	7.3	2.7	3.8
31	3.2	-	9.3	9.0	-----	9.6	-----	4.5	-----	6.0	2.9	-
Total	86.4	180.9	338.7	411.1	679.3	391.9	369.1	237.6	169.3	263.5	186.3	85.1
Mean	2.79	6.03	10.9	13.3	24.3	12.6	12.3	7.66	5.64	8.50	6.01	2.77
Cfs/m	0.271	0.585	1.06	1.29	2.36	1.22	1.19	0.744	0.548	0.825	0.583	0.269
In.	0.31	0.65	1.22	1.49	2.46	1.41	1.33	0.86	0.61	0.95	0.67	0.30

Calendar year 1954: Max - Min - Mean - Cfs/m - In. -
 Water year 1954-55: Max 260 Min 2.0 Mean 9.31 Cfs/m 0.904 In. 12.26

* Discharge measurement made on this day.

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 1955.

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.

Extremes.--Maximum discharge during year, 1,800 cfs Feb. 7 (gage height, 5.7 ft); minimum, 16 cfs Oct. 5.

1942-44, 1954-55: Maximum discharge, 4,700 cfs (revised) Jan. 18, 1943 (gage height, 7.6 ft from graph based on gage readings); minimum, that of Oct. 5, 1954.

Revisions.--Figures of maximum discharge for the water years 1943 and 1944 have been revised to 4,700 cfs Jan. 18, 1943 (gage height, 7.6 ft, from graph based on gage readings) and 3,160 cfs Mar. 29, 1944 (gage height, 6.8 ft, from graph based on gage readings), superseding figures published in WSP 1002.

Remarks.--Records good.

Revisions.--Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1943 and 1944, superseding those published in WSP 1002, are given herewith:

1942		1943-Con.	
Dec. 29.....	1,620	Apr. 20.....	2,220
30.....	1,700		
1943		1944	
Jan. 18.....	3,130	Mar. 20.....	2,340
19.....	1,410	21.....	1,100
28.....	1,150	29.....	2,060
Apr. 19.....	1,770	30.....	1,860

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1942.....	7,954	1,700	83	257	2.16	2.49
January 1943.....	11,354	3,130	108	366	3.08	3.55
April.....	9,649	2,220	134	322	2.71	3.02
Water year 1942-43.....	73,817	3,130	45	203	1.71	23.09
Calendar year 1943.....	73,407	3,130	62	201	1.69	22.92
March 1944.....	15,994	2,340	162	516	4.34	5.00
Water year 1943-44.....	70,113	2,340	45	192	1.61	21.90
Calendar year 1944.....	67,080	2,340	45	183	1.54	20.97

Rating table, water year 1954-55 (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	6.0	2,110

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	32	70	239	86	101	93	73	54	38	84	36
2	20	35	67	338	109	130	103	71	51	37	203	36
3	19	35	63	190	98	111	262	70	50	36	84	36
4	18	38	59	139	86	115	155	68	49	35	67	36
5	17	54	165	*117	86	113	126	67	47	36	126	35
6	18	46	342	103	340	164	128	65	47	44	95	36
7	23	43	195	95	*1,500	180	192	60	50	37	68	33
8	21	42	115	87	1,160	130	139	59	50	*33	63	29
9	21	42	105	84	338	115	119	57	49	44	82	42
10	22	43	105	137	188	124	113	*56	47	39	63	33
11	21	46	87	321	155	130	155	54	84	82	*49	30
12	21	43	78	170	132	117	153	59	73	82	47	29
13	*22	43	122	132	126	182	134	80	57	144	50	29
14	21	43	119	111	122	155	162	105	51	394	44	29
15	21	44	99	105	117	130	141	80	50	168	88	28
16	21	60	86	99	113	124	126	75	47	87	126	25
17	22	71	78	89	117	130	115	80	46	65	60	24
18	23	59	99	89	111	115	109	68	46	56	53	22
19	25	60	93	268	103	122	105	62	60	*49	51	22
20	25	93	80	165	99	124	101	57	65	43	44	22
21	26	63	75	130	97	115	105	73	150	251	53	22
22	27	54	73	148	*97	190	113	107	60	117	43	21
23	26	65	73	130	107	158	99	99	63	73	*41	19
24	26	73	71	119	122	130	93	97	132	62	39	21
25	27	59	67	107	130	119	95	122	80	56	36	26
26	27	56	65	95	113	119	89	86	68	86	35	*26
27	27	59	65	93	105	107	84	71	56	59	35	25
28	26	111	65	89	101	*103	82	62	*50	51	33	25
29	30	*134	86	87	-	99	80	59	47	78	31	26
30	30	82	137	87	-----	97	77	59	43	86	29	26
31	29	--	103	84	-----	93	-----	54	-----	87	37	--
Total	726	1,728	3,107	4,247	6,058	3,942	3,648	2,255	1,822	2,555	1,959	849
Mean	23.4	57.6	100	137	216	127	122	60.7	82.4	63.2	28.3	
Cfs/m	0.197	0.484	0.840	1.15	1.82	1.07	1.03	0.611	0.510	0.692	0.531	0.238
In.	0.23	0.54	0.97	1.33	1.90	1.23	1.15	0.70	0.57	0.80	0.61	0.27
Calendar year 1954: Max	-	-	-	Min	-	Mean	-	Cfs/m	-	In.	-	
Water year 1954-55: Max	1,500	-	-	Min	17	Mean	90.1	Cfs/m	0.757	In.	10.30	

Peak discharge (base, 1,500 cfs).--Feb. 7 (1 p.m.) 1,800 cfs (5.7 ft).

* Discharge measurement made on this day.

SAVANNAH RIVER BASIN

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 (revised).

Records available.--November 1926 to July 1932, August 1937 to September 1955.

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.--21 years (1928-31, 1937-55), 1,682 cfs.

Extremes.--Maximum discharge during year, 14,700 cfs Feb. 8 (gage height, 18.0 ft); minimum, 108 cfs Oct. 8.

1926-32, 1937-55: 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, that of Oct. 8, 1954.

Remarks.--Records good. Moderate diurnal fluctuation at low flow caused by small power-plants above station.

Revisions (water years).--WSP 1172: 1928-30.

Rating table, water year 1954-55 (gage height, in feet, and discharge,
in cubic feet per second)
(Shifting-control method used Dec. 8 to Feb. 6, Feb. 10 to May 17)

2.19	110	6.0	1,940
2.2	113	9.0	4,240
2.5	195	12.0	7,150
3.0	370	16.0	11,800
4.0	790	18.0	14,700

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	211	700	790	722	1,020	865	655	526	334	526	514
2	123	214	590	3,100	722	1,020	865	655	498	323	550	430
3	136	227	530	3,180	790	1,040	1,180	632	482	306	790	326
4	128	244	518	1,810	790	990	1,810	610	458	295	530	320
5	120	302	498	1,280	722	940	1,280	590	442	358	446	284
6	113	362	1,860	1,060	2,530	1,040	1,120	570	434	390	522	278
7	110	358	2,350	940	12,200	1,550	1,180	530	418	406	506	274
8	113	323	1,200	815	14,600	1,040	1,460	522	442	358	498	284
9	123	306	840	745	10,900	1,230	1,180	498	446	745	*514	*244
10	123	306	768	790	3,100	1,090	1,040	*482	430	745	494	244
11	128	306	745	2,850	2,140	1,090	1,090	462	434	610	426	281
12	133	309	655	2,800	1,880	1,150	1,520	458	498	865	342	240
13	136	312	655	1,620	1,580	1,040	1,460	915	570	1,360	320	244
14	136	316	865	*1,200	1,400	1,200	2,580	1,040	450	2,650	330	270
15	133	320	840	1,040	1,310	1,200	2,880	990	414	1,680	406	247
16	126	354	745	965	*1,260	1,090	2,010	965	402	940	722	227
17	123	438	655	915	1,230	1,060	1,490	1,680	382	632	915	208
18	128	530	610	865	1,230	1,040	1,260	1,310	374	502	510	186
19	141	510	655	1,580	1,150	1,150	1,150	890	430	442	370	177
20	157	490	655	2,210	1,090	1,810	1,040	700	632	406	446	165
21	162	550	632	1,490	1,040	1,580	990	722	632	534	438	162
22	168	514	590	1,340	990	1,370	990	1,020	*632	1,520	422	154
23	177	454	570	1,370	990	1,650	1,040	1,230	490	990	346	152
24	186	490	570	1,200	1,040	1,340	965	1,150	550	700	306	143
25	*189	510	570	1,060	1,340	1,150	890	1,340	700	655	284	149
26	189	458	550	965	1,260	1,060	840	1,310	530	590	257	186
27	189	430	526	890	1,120	1,020	790	890	482	530	237	205
28	192	470	522	840	1,060	965	745	722	414	490	230	195
29	192	990	522	815	-	940	745	632	374	450	217	198
30	195	990	570	768	-----	*915	700	570	354	490	211	189
31	208	---	700	745	-----	865	-----	550	-----	530	208	---
Total	4,593	12,594	23,256	41,838	70,186	35,645	37,155	25,290	14,320	21,826	13,319	7,176
Mean	148	420	750	1,350	2,507	1,150	1,238	816	477	704	430	239
Cfsm	0.103	0.294	0.524	0.944	1.75	0.804	0.866	0.571	0.334	0.492	0.301	0.167
In.	0.12	0.33	0.60	1.09	1.82	0.93	0.97	0.66	0.37	0.57	0.35	0.19

Calendar year 1954: Max 14,200 Min 110 Mean 958 Cfsm 0.670 In. 9.14
 Water year 1954-55: Max 14,600 Min 110 Mean 842 Cfsm 0.589 In. 8.00

Peak discharge (base, 14,000 cfs).--Feb. 8 (4 p.m.) 14,700 cfs (18.0 ft).
 * 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 1955.

Gage.--Water-stage recorder. Datum of gage is 353.97 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--15 years (1940-55), 204 cfs.

Extremes.--Maximum discharge during year, 4,310 cfs Feb. 7 (gage height, 15.64 ft); minimum, 0.7 cfs Oct. 9.

1939-55: 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, that of Oct. 9, 1954.

Remarks.--Records good.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	12	44	90	79	119	94	72	59	31	135	17
2	1.6	13	35	512	85	144	94	70	56	30	94	31
3	1.3	14	34	372	90	170	100	67	53	29	*59	65
4	1.3	16	33	186	*82	136	97	66	50	28	48	27
5	1.3	19	34	121	75	121	88	66	47	31	67	25
6	1.3	25	152	97	1,190	121	90	63	46	72	57	24
7	1.3	26	392	86	4,080	202	121	59	44	54	62	24
8	1.0	22	136	75	5,060	160	244	54	77	38	62	22
9	1.0	20	77	74	666	136	126	52	76	34	86	19
10	1.3	20	70	92	403	119	103	48	54	59	62	16
11	1.6	*20	62	512	340	126	118	48	54	54	42	16
12	*2.4	20	54	340	298	125	200	50	62	46	35	16
13	2.8	20	61	180	236	240	166	386	51	94	32	22
14	3.2	20	95	123	210	273	732	663	44	97	30	18
15	3.2	22	92	100	198	216	600	212	41	83	59	17
16	2.8	25	67	96	186	170	330	112	*38	44	60	16
17	2.4	36	*59	88	176	174	230	100	37	35	46	14
18	2.4	42	59	85	166	156	186	86	36	30	34	12
19	3.2	35	61	319	148	176	158	72	42	28	30	12
20	3.9	33	58	340	136	238	138	67	45	28	38	12
21	5.1	34	51	190	128	222	126	68	84	46	43	*12
22	6.4	32	50	162	121	210	128	114	193	36	62	11
23	6.8	30	50	168	117	178	115	190	63	38	54	10
24	7.8	31	48	140	121	*148	107	128	54	41	38	10
25	8.2	34	48	132	168	134	103	565	53	96	26	9.6
26	9.6	32	46	115	158	126	108	392	44	167	23	9.6
27	10	30	46	102	130	115	*90	182	42	91	21	10
28	10	33	47	97	123	107	85	103	37	56	20	12
29	11	42	48	91	-	103	81	82	36	34	19	12
30	11	61	50	85	-----	100	77	71	34	161	17	15
31	12	---	51	81	-----	96	-----	63	-----	182	17	---
Total	139.2	819	2,210	5,251	12,970	4,941	5,035	4,371	1,652	2,200	1,458	536.2
Mean	4.49	27.3	71.3	169	463	159	168	141	55.1	71.0	47.0	17.9
Cfsm	0.021	0.126	0.329	0.779	2.13	0.733	0.774	0.650	0.254	0.327	0.217	0.082
In.	0.02	0.14	0.38	0.90	2.22	0.85	0.86	0.75	0.28	0.38	0.25	0.09
Calendar year 1954: Max	3,210				Min 1.0	Mean 133	Cfsm 0.613	In. 8.35				
Water year 1954-55: Max	4,080				Min 1.0	Mean 114	Cfsm 0.525	In. 7.12				

Peak discharge (base, 2,500 cfs).--Feb. 7 (6:45 a.m.) 4,310 cfs (15.64 ft).

* 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 (revised).

Records available.--October 1949 to September 1955.

Average discharge.--6 years, 183 cfs.

Gage.--Water-stage recorder. Altitude of gage is 360 ft (by barometer).

Extremes.--Maximum discharge during year, 2,280 cfs Feb. 8 (gage height, 13.8 ft); minimum, 0.32 cfs Oct. 12-16.

1949-55: Maximum discharge, 13,100 cfs Mar. 4, 1952 (gage height, 27.6 ft); minimum, that of Oct. 12-16, 1954.

Remarks.--Records good.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 6-17, Dec. 6 to Jan. 1, June 20 to July 11)

Oct. 1 to Jan. 2					Jan. 3 to Sept. 30				
1.54	0.32	2.0	7.8	5.0	298	2.3	12	4.0	150
1.6	.62	2.2	16	6.0	460	2.5	23	5.5	370
1.7	1.4	2.5	32	10.0	1,280	3.0	54		
1.8	2.8	3.0	71	12.0	1,760				
1.9	5.0	4.0	175	13.0	2,040				

Note.--Same as preceding table above 5.5 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.46	0.62	27	164	92	105	89	86	60	31	59	31
2	.51	.79	23	1,350	93	101	89	80	55	29	58	46
3	.46	.79	22	1,100	97	98	100	75	53	27	*49	64
4	.41	1.0	20	298	86	98	107	71	50	26	40	34
5	*.56	2.5	28	162	80	93	97	67	48	34	35	32
6	.56	2.8	129	*122	428	92	92	63	45	74	33	31
7	.41	6.1	95	102	1,930	113	107	59	43	50	34	30
8	.46	5.8	56	87	1,960	120	150	56	41	44	31	*28
9	.41	4.5	42	78	690	105	123	53	39	37	29	24
10	.41	3.9	58	83	322	98	104	*49	38	36	27	21
11	.36	3.7	33	314	379	102	106	46	38	105	27	20
12	*.32	3.7	30	290	362	101	124	45	37	309	24	19
13	.32	4.1	35	156	218	110	143	51	35	1,040	24	25
14	.32	4.1	45	116	176	120	1,040	116	33	436	28	33
15	.32	*5.6	47	99	*162	111	1,510	93	32	150	138	32
16	.32	18	42	104	149	112	850	75	31	93	514	27
17	.36	26	36	140	143	114	346	532	30	67	890	24
18	.46	29	35	136	144	106	253	424	34	58	144	23
19	.46	28	36	890	136	146	204	148	88	50	67	21
20	.46	27	34	690	126	362	176	98	100	186	69	19
21	.51	23	32	274	120	306	162	85	*70	147	245	17
22	.51	18	30	225	115	218	150	328	66	156	53	15
23	.46	16	30	253	113	169	144	770	58	90	43	14
24	.46	18	29	218	110	143	138	424	65	90	39	12
25	.46	16	28	197	114	129	129	460	50	97	56	14
26	.46	14	27	156	122	122	119	322	45	70	34	30
27	.46	13	27	137	112	109	111	162	41	67	31	16
28	.46	17	27	125	108	101	104	113	37	53	30	16
29	.57	33	28	114	-	97	98	86	34	52	27	18
30	.62	37	29	104	-----	*94	92	74	33	81	25	16
31	.57	-----	29	97	-----	92	-----	*65	-----	58	24	-
Total	15.49	382.80	1,169	8,381	8,887	3,987	7,057	5,176	1,429	3,845	2,907	752
Mean	0.435	12.9	37.7	270	317	129	235	167	47.6	124	93.8	25.1
Cfsm	0.0015	0.044	0.130	0.928	1.09	0.443	0.808	0.574	0.164	0.426	0.322	0.086
In.	0.002	0.05	0.15	1.07	1.14	0.51	0.90	0.66	0.18	0.49	0.37	0.10

Calendar year 1954: Max 844 Min 0.32 Mean 82.8 Cfsm 0.285 In. 3.85
Water year 1954-55: Max 1,960 Min 0.32 Mean 121 Cfsm 0.416 In. 5.64

Peak discharge (base, 3,000 cfs).--No peak above base.

* 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 1955.

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, 319.50 ft May 29; minimum, 301.08 ft Dec. 30. 1952-55: Maximum elevation, 333.20 ft May 7, 1953; minimum, 300.73 ft Nov. 19, 1952.

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 cu ft between elevations 305.0 ft (normal limit of drawdown) and 335.0 ft (top of spillway gates). Dead storage, 50,960,000 cu ft. Figures given herein represent usable contents. Elevation of spillway crest, 300.0 ft. Water is used for flood control, generation of power, and navigation.

Elevation at 12 p.m., in feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14.71	8.16	2.73	2.36	5.81	14.64	15.01	17.94	19.15	17.09	17.30	15.35
2	14.53	7.91	2.57	3.18	5.82	14.62	15.09	17.66	19.07	17.05	17.20	15.26
3	14.46	7.55	2.41	3.48	5.82	14.57	15.26	17.75	18.97	17.07	17.13	15.25
4	14.24	7.35	2.36	3.59	5.80	14.52	15.28	17.65	18.93	16.98	17.03	15.27
5	14.11	7.09	2.40	3.65	5.87	14.57	15.31	17.60	18.96	16.95	16.94	15.14
6	13.82	6.87	2.43	3.74	6.93	14.79	15.45	17.48	18.81	16.80	16.93	14.95
7	13.60	6.83	2.59	3.70	9.70	14.73	15.40	17.47	18.78	16.85	16.95	14.77
8	13.35	6.57	2.56	3.78	11.69	14.67	15.49	17.55	18.68	16.59	16.87	14.61
9	13.16	6.29	2.55	3.90	12.78	14.61	15.58	17.38	18.55	16.64	16.75	14.42
10	13.07	6.05	2.40	3.93	13.08	14.53	15.75	17.24	18.46	16.68	16.65	14.40
11	12.66	5.82	2.43	4.11	13.37	14.50	15.73	17.14	18.49	16.60	16.55	14.41
12	12.66	5.57	2.52	4.37	13.56	14.56	15.86	17.05	18.55	16.60	16.45	14.24
13	12.41	5.39	2.44	4.41	13.73	14.75	16.18	17.09	18.43	16.90	16.43	14.10
14	12.15	5.36	2.37	4.40	13.73	14.72	17.00	17.21	18.32	17.23	16.46	13.96
15	11.92	5.15	2.30	4.59	13.78	14.69	17.50	17.36	18.18	17.36	16.39	13.76
16	11.66	4.98	2.20	4.75	13.89	14.67	17.82	17.28	18.08	17.41	16.44	13.60
17	11.53	4.81	2.11	4.69	13.90	14.59	18.05	17.36	17.97	17.50	16.42	13.54
18	11.28	4.66	2.14	4.76	13.88	14.60	18.03	17.51	18.01	17.40	16.35	13.54
19	11.08	4.54	2.24	5.01	14.06	14.79	18.07	17.54	18.12	17.28	16.27	13.35
20	10.79	4.42	2.07	5.23	14.16	15.00	18.12	17.54	18.00	17.26	16.41	13.12
21	10.53	4.41	1.93	5.35	14.14	14.95	18.15	17.80	17.90	17.20	16.50	12.93
22	10.28	4.18	1.84	5.55	14.12	15.02	18.13	18.05	17.84	17.22	16.38	12.76
23	10.07	3.98	1.77	5.76	14.16	15.04	18.14	18.36	17.75	17.32	16.26	12.60
24	9.99	3.80	1.74	5.79	14.28	15.14	18.23	18.69	17.69	17.43	16.20	12.55
25	9.73	3.65	1.78	5.80	14.39	15.14	18.16	18.94	17.74	17.41	16.07	12.61
26	9.46	3.36	1.84	5.81	14.55	15.35	18.10	19.09	17.74	17.35	15.96	12.43
27	9.23	3.17	1.57	5.82	14.70	15.37	18.04	19.14	17.62	17.27	15.89	12.25
28	9.01	3.18	1.33	5.79	14.65	15.27	17.99	19.27	17.48	17.18	15.91	12.06
29	8.83	3.00	1.24	5.83	-	15.20	17.94	19.44	17.55	17.20	15.75	11.87
30	8.66	2.84	1.27	6.00	-----	15.13	17.91	19.35	17.20	17.24	15.54	11.75
31	8.45	-----	1.67	6.89	-----	15.06	-----	19.21	-----	17.36	15.44	-----

Note.--Add 300 ft to obtain elevation above mean sea level. Elevation for periods Nov. 26, 27, Nov. 30 to Dec. 5, Dec. 9, July 3-7, 9-20, July 29 to Aug. 2, Sept. 12-19, obtained from powerplant log.

Monthly elevation and contents, water year October 1954 to September 1955

Date	Elevation (feet)†	Contents (billions of cubic feet)	Change in contents during month (equivalent in cubic feet per second)
Sept. 30.....	314.93	18.59	-
Oct. 31.....	308.45	6.16	-4,641
Nov. 30.....	302.84	-3.20	-3,611
Dec. 31.....	301.67	-4.93	-646
Calendar year 1954..	-	-	-1,136
Jan. 31.....	305.89	1.59	+2,434
Feb. 28.....	314.65	18.04	+6,800
Mar. 31.....	315.06	18.87	+310
Apr. 30.....	317.91	25.32	+2,468
May 31.....	319.21	28.27	+1,101
June 30.....	317.20	23.71	-1,759
July 31.....	317.56	24.08	+136
Aug. 31.....	315.44	19.73	-1,624
Sept. 30.....	311.75	12.36	-2,843
Water year 1954-55..	-	-	-198

† Elevation at 12 p.m.

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 1955 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.--15 years, 352 cfs.

Extremes.--Maximum discharge during year, 11,300 cfs Apr. 15 (gage height, 24.75 ft); no flow Oct. 1 to Nov. 16, Nov. 22.
1940-55: 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 except those for period of doubtful or no gage-height record, which are poor. Slight diurnal fluctuation during low flow caused by small mills above station.

Revisions.--WSP 1032: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.2	0	1.5	144
.3	2.5	2.0	275
.4	2.5	8.0	1,900
.6	10	16.0	4,900
.8	23	19.0	6,210
1.0	45	22.0	8,710
1.2	76		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	4.6	45	66	84	76	56	58	9.4	*111	70
2		0	5.3	1,410	64	82	76	49	41	11	146	57
3		0	5.3	471	62	74	133	45	45	6.4	122	734
4		0	5.6	173	61	78	225	44	30	3.6	62	106
5		0	6.4	98	58	74	147	33	35	37	116	64
6		0	9.6	69	1,510	76	114	38	32	154	37	48
7		0	8.0	56	6,360	132	250	31	32	74	27	36
8		0	13	46	2,160	209	340	31	29	53	21	25
9		0	22	41	582	142	196	30	21	75	184	23
10		0	23	43	297	105	134	28	29	26	71	16
11		0	18	206	476	92	119	24	59	50	31	13
12		0	12	342	1,050	86	162	17	52	472	27	14
13		0	15	170	383	92	292	28	*41	1,290	17	18
14		0	22	120	238	752	7,620	74	35	518	14	28
15		0	*22	95	196	383	7,920	165	26	410	408	14
16		0	28	75	*173	209	1,440	84	18	148	759	8.4
17		.5	30	65	157	165	478	55	18	80	212	7.6
18		*1.0	23	60	144	144	305	44	16	48	96	8.0
19		.2	20	250	129	157	238	39	15	38	56	7.2
20		.2	22	900	144	825	196	35	33	30	113	*7.2
21		.1	22	550	103	518	170	215	46	29	203	7.2
22		0	16	300	98	299	152	2,770	51	35	69	6.4
23		2.6	12	340	96	*219	147	2,140	31	33	49	13
24		6.4	14	260	92	162	132	544	29	26	64	9.8
25	(*)	5.3	11	220	92	136	*108	732	17	69	53	256
26		*4.6	10	190	98	119	92	508	15	133	51	373
27		3.6	10	167	94	108	78	209	18	106	33	36
28		4.2	12	126	86	92	71	136	20	95	25	27
29		5.3	18	103	-	84	64	96	20	118	20	16
30		*4.6	15	92	-----	86	59	73	12	264	23	8.4
31		---	12	*74	-----	76	---	62	-----	134	21	-
Total	0	38.6	466.8	7,157	15,639	5,860	21,534	8,435	924	4,575.4	3,241	2,057.2
Mean	0	1.29	15.1	231	559	189	718	272	50.6	148	105	68.6
Cfsm	0	0.0024	0.028	0.424	1.03	0.347	1.32	0.499	0.057	0.272	0.193	0.126
In.	0	0.003	0.03	0.49	1.07	0.40	1.47	0.58	0.06	0.31	0.22	0.14
Calendar year 1954: Max			2,170	Min	0	Mean	113	Cfsm	0.207	In.	2.80	
Water year 1954-55: Max			7,920	Min	0	Mean	192	Cfsm	0.352	In.	4.77	

Peak discharge (base, 6,000 cfs).--Feb. 7 (12:30 p.m.) 8,370 cfs (21.57 ft); Apr. 15 (4 a.m.) 11,300 cfs (24.75 ft).

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

Note.--No gage-height record Oct. 6-24, Jan 13-26; discharge estimated on basis of weather records and records for Little River near Mount Carmel. Doubtful gage-height record Oct. 1-5, 26, 28-31, Nov. 2-17; discharge computed on basis of partial record, weather records, and records for Little River near Mount Carmel.

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 1955.

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.--24 years (1931-55), 2,736 cfs.

Extremes.--1930-55: Maximum daily discharge, 4,380 cfs Jan. 2, 28, 1948; no flow Apr. 8 to May 10, 1936.

Remarks.--Records good except those for periods of fragmentary gage-height record, which are fair, and those below 800 cfs, which are poor. Canal diverts water from Savannah River at dam 1 mile downstream from Stevens Creek Dam for power and municipal supply. Waste water from powerhouses returned to river by three channels above Thirteenth Street Bridge. Water is pumped from canal for municipal supply of Augusta, and a small amount entering Beaverdam ditch is discharged into river about 13 miles below Augusta.

Discharge, in cubic feet per second, water year october 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,170	f3,000	3,370	2,130	*3,510	3,260	2,890	1,870	3,170	3,260	3,140	3,250
2	1,780	f3,200	3,200	1,510	2,900	3,090	2,260	3,070	f3,200	2,130	*3,340	3,030
3	1,510	f3,200	3,060	2,760	3,000	3,070	1,500	3,260	f3,200	1,690	3,200	1,980
4	2,720	f3,200	1,960	3,180	3,220	3,200	2,950	3,210	f2,200	1,340	3,210	1,680
5	3,240	f3,200	1,640	3,210	2,030	2,020	3,000	3,260	f1,600	1,370	3,240	1,590
6	3,450	f2,000	2,800	3,070	1,450	1,580	3,000	3,310	f2,800	1,360	3,070	2,710
7	3,550	f1,500	3,240	3,030	2,700	2,800	3,170	2,220	f3,200	1,320	1,660	2,970
8	3,280	f2,800	3,000	2,230	3,090	2,940	2,850	1,820	f3,200	1,390	3,100	3,120
9	1,970	f3,200	2,940	1,500	2,820	2,960	2,190	2,940	f3,200	1,330	3,230	3,200
10	1,590	f3,200	3,130	2,590	3,010	3,100	1,610	3,230	f3,200	1,380	3,200	2,170
11	3,000	f3,200	1,970	3,070	3,120	3,160	2,790	3,240	f2,200	2,790	3,150	1,540
12	3,470	3,270	1,620	3,250	1,950	1,810	3,090	3,350	f1,700	3,020	3,300	2,740
13	3,170	2,160	2,700	3,220	1,440	1,440	2,820	3,240	f2,800	3,280	2,360	3,240
14	3,150	1,560	*3,140	3,030	2,660	2,870	3,070	2,010	*f3,200	3,460	1,560	3,320
15	3,270	2,940	3,240	1,860	3,050	3,050	2,740	1,530	3,310	3,030	2,900	3,240
16	f1,900	3,180	3,310	1,760	3,200	2,900	2,190	2,710	3,140	2,020	3,190	3,200
17	f1,600	3,250	2,830	2,610	3,170	3,040	1,880	3,330	3,120	1,740	3,050	2,160
18	f3,000	3,210	1,610	2,980	2,890	3,100	2,840	3,120	2,200	2,940	3,280	1,740
19	f3,200	3,120	1,630	3,190	1,610	1,850	2,960	2,980	1,680	3,350	3,260	2,870
20	f3,200	2,000	1,530	2,970	1,610	1,340	2,940	3,000	2,820	3,300	2,120	3,100
21	f3,200	1,660	1,370	3,050	2,580	2,730	3,120	2,230	3,260	3,130	1,600	f3,200
22	f3,200	3,040	1,380	2,010	3,060	*3,180	3,260	1,620	3,210	2,990	2,900	f3,200
23	f1,900	3,280	1,420	1,310	3,180	2,920	1,790	3,050	3,130	2,000	3,280	f3,200
24	f1,500	f3,200	1,390	2,670	3,090	3,050	1,540	3,170	3,260	1,570	3,180	f2,000
25	f3,000	f3,200	1,530	3,090	3,000	3,100	3,550	2,770	2,300	3,100	3,120	f1,700
26	*2,930	f3,200	1,420	3,100	2,060	2,170	*3,200	3,150	1,700	3,410	3,080	f2,800
27	3,240	f2,000	2,780	2,940	1,520	1,670	3,450	3,240	3,110	3,170	2,090	*3,350
28	3,470	f1,800	3,190	3,060	2,560	2,680	3,050	2,060	3,320	3,390	1,660	3,430
29	3,330	f3,000	3,390	1,720	-	3,020	3,020	1,670	3,260	3,350	2,940	3,380
30	f1,900	3,330	3,150	1,310	-----	3,210	2,140	2,810	3,280	f300	3,260	3,200
31	f1,600	-----	3,090	2,690	-----	3,340	-----	3,210	-----	f600	3,310	-
Total	84,090	84,130	75,840	80,110	73,480	83,650	80,860	85,700	85,170	72,510	88,990	82,290
Mean	2,715	2,804	2,446	2,584	2,624	2,698	2,695	2,765	2,839	2,339	2,871	2,743
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954: Max	3,470			Min 500		Mean 2,614	Cfsm -	In. -				
Water year 1954-55: Max	3,550			Min 300		Mean 2,676	Cfsm -	In. -				

* Discharge measurement made on this day.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

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 1898 to December 1906, June 1927 to July 1932, and October 1938 to September 1955 in reports of Geological Survey, January 1925 to June 1933 in House Document 64, 74th Congress, 1st session. January 1884 to December 1891, January 1898 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 1898 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 at present datum.

Average discharge.--29 years (1898-1906, 1927-31, 1938-55), 10,250 cfs.

Extremes.--Maximum discharge during year, 23,900 cfs Apr. 15 (gage height, 16.77 ft); minimum, 4,180 cfs Jan. 23, Feb. 1-3; minimum daily, 4,180 cfs Jan. 23, Feb. 1, 2.

1884-91, 1898-1906, 1925-55: 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. 267 for monthly variation in contents), Stevens Creek powerplant, and New Savannah Bluff lock and dam above station.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,030	5,640	5,360	4,620	*4,180	4,360	6,430	5,840	5,740	5,080	4,980	4,900
2	6,630	5,640	5,360	4,620	4,180	5,550	6,130	5,170	4,980	*5,170	4,980	4,980
3	6,030	6,330	5,260	4,800	4,260	6,000	5,260	5,260	5,080	4,980	5,260	5,460
4	5,550	6,730	5,080	5,460	4,260	6,630	5,360	5,360	5,080	4,980	5,550	4,980
5	5,460	6,430	5,080	5,550	4,260	5,550	5,360	5,260	5,080	4,980	6,230	4,980
6	5,550	6,130	5,170	4,800	4,260	5,360	5,460	5,930	5,360	5,080	5,460	5,170
7	6,130	6,230	5,080	5,080	8,070	5,360	5,460	5,740	5,740	5,080	4,980	5,170
8	6,230	5,640	5,080	4,800	12,900	5,550	6,330	5,260	5,740	4,980	5,080	5,080
9	5,930	5,640	5,080	4,360	9,220	5,740	6,030	5,260	5,170	4,980	5,260	4,980
10	5,930	5,840	5,260	4,360	6,530	5,840	5,360	5,260	5,170	5,080	5,170	4,980
11	5,550	6,430	5,260	4,360	5,080	6,530	5,360	5,260	4,900	5,080	5,080	4,900
12	5,550	6,130	4,800	4,260	4,540	5,640	5,550	5,170	4,900	4,980	5,080	5,170
13	5,460	5,740	4,800	4,620	4,540	5,360	5,550	5,080	4,360	5,170	5,260	5,550
14	5,640	5,640	*4,800	5,170	4,900	5,360	10,300	5,360	*5,170	6,330	5,080	4,900
15	5,640	5,640	4,800	4,360	4,540	5,640	22,400	5,170	5,260	5,840	5,080	4,900
16	5,550	5,640	4,800	4,260	4,900	5,640	13,500	5,170	5,170	5,260	5,460	4,900
17	5,460	5,640	4,900	4,260	4,980	6,330	7,950	5,550	5,170	5,080	5,550	4,900
18	5,640	5,550	5,170	4,260	5,700	6,730	5,930	5,260	5,550	5,080	5,740	4,900
19	5,640	5,640	4,800	4,260	5,460	6,230	6,330	5,170	4,980	5,360	6,130	4,900
20	5,550	5,740	4,720	4,900	4,620	5,460	6,130	6,030	5,080	5,460	5,080	*4,900
21	5,640	5,550	4,900	5,640	4,720	6,430	5,740	5,740	5,360	5,360	4,900	4,980
22	6,730	5,550	4,720	4,820	4,720	*5,930	6,130	5,460	5,460	5,360	4,900	4,900
23	5,930	5,740	4,540	4,180	4,720	6,030	7,150	8,030	5,170	5,170	5,170	4,900
24	5,740	5,640	4,440	4,260	4,720	6,730	6,130	6,030	5,360	5,080	5,170	4,980
25	5,550	5,640	4,360	4,260	4,440	6,530	5,550	6,670	5,260	5,640	5,080	4,800
26	*5,550	5,740	4,440	4,440	4,360	5,840	*5,840	6,930	5,080	5,360	4,900	4,900
27	5,550	6,530	4,360	4,440	4,360	5,360	6,330	7,040	5,360	5,170	4,900	4,900
28	6,230	5,740	4,360	4,720	4,360	5,360	6,730	5,550	5,360	5,080	4,900	4,900
29	6,230	5,740	4,900	4,360	-	5,360	6,230	5,360	5,360	5,080	5,260	4,900
30	6,030	5,460	7,020	4,260	-	5,360	6,130	5,550	5,170	5,170	5,170	4,980
31	6,030	-	5,740	4,260	-	5,930	-	6,030	-	5,080	4,980	-
Total	180,360	175,370	154,440	142,600	147,780	178,790	213,560	179,910	156,810	161,390	162,010	149,840
Mean	5,818	5,646	4,982	4,600	5,278	5,767	7,119	5,804	5,227	5,206	5,226	4,995
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1954: Max	22,300			Min	4,360	Mean	6,944	Cfsm	-	In.	-	
Water year 1954-55: Max	22,400			Min	4,180	Mean	5,487	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 1955.

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.--16 years, 10,110 cfs.

Extremes.--Maximum discharge during year, 15,000 cfs Apr. 18 (gage height, 13.21 ft); minimum daily, 4,770 cfs Dec. 29.

1939-55: 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. 267 for monthly change in contents), Stevens Creek powerplant, and New Savannah Bluff lock and dam above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 24 to Sept. 25)

4.5	4,770
5.0	5,220
6.0	6,160
10.0	10,400
14.0	16,600

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,500	6,260	6,160	6,540	4,950	5,130	6,160	6,640	*6,350	5,400	5,220	5,500
2	5,880	*5,970	5,970	5,880	*4,950	5,040	6,740	6,260	6,350	5,310	5,220	5,400
3	6,350	5,880	5,970	5,680	4,860	5,140	6,740	6,440	5,880	5,220	5,220	5,780
4	6,350	6,060	5,960	5,860	4,860	5,780	6,350	5,970	5,590	5,130	5,310	6,350
5	5,970	6,640	5,680	6,160	4,860	6,840	6,260	5,780	5,500	5,220	5,400	6,350
6	5,680	6,740	5,680	6,350	5,040	6,440	6,160	5,680	5,400	5,500	5,970	6,060
7	5,590	6,350	5,880	5,970	5,590	6,160	6,260	5,780	5,500	5,680	6,060	6,060
8	5,880	6,440	5,970	5,680	7,620	6,260	6,440	6,060	5,680	5,680	5,400	6,160
9	6,260	6,060	5,970	5,590	11,000	6,260	6,940	5,590	5,880	5,590	5,220	5,970
10	6,060	5,880	5,780	5,220	11,400	6,350	7,140	5,500	5,590	5,500	5,220	5,590
11	6,060	5,970	5,780	5,130	9,700	6,440	6,540	5,500	5,500	5,500	5,310	5,500
12	5,680	6,350	5,780	5,220	7,740	6,840	6,540	5,500	5,590	5,590	5,220	5,400
13	5,590	6,440	5,590	5,220	6,540	6,640	6,640	5,400	5,400	5,590	5,130	5,590
14	5,590	6,260	5,590	5,220	5,970	6,060	7,040	5,500	5,220	5,680	5,220	6,060
15	5,590	6,060	5,590	5,680	5,880	5,970	9,480	5,880	5,220	6,260	5,400	5,970
16	5,780	6,060	5,590	5,400	5,780	6,060	12,500	5,970	5,400	6,260	5,590	5,590
17	5,680	6,160	5,590	5,040	5,780	6,160	13,900	5,970	5,400	5,780	5,880	5,500
18	5,680	6,260	5,500	5,040	5,880	6,440	14,800	6,060	5,400	5,400	5,970	5,400
19	5,680	6,260	5,500	5,220	5,970	7,040	14,200	5,970	5,780	5,310	5,780	5,220
20	5,780	6,160	5,310	5,500	6,640	7,340	11,800	5,680	5,680	5,680	6,350	5,220
21	5,680	6,160	5,130	5,680	5,970	7,040	9,700	5,880	5,780	6,060	5,880	5,220
22	5,590	6,060	5,130	6,440	5,680	7,240	8,160	6,350	6,060	6,060	5,500	5,220
23	6,160	5,970	5,130	6,060	5,590	7,340	7,440	6,350	5,970	5,880	5,590	5,130
24	6,350	6,060	5,040	5,680	5,590	6,940	7,740	7,640	5,680	5,780	5,780	5,130
25	5,970	6,060	4,950	5,680	5,590	7,140	7,440	9,260	5,500	5,500	6,350	5,040
26	5,780	5,970	4,860	5,590	5,400	7,340	6,640	8,710	5,780	5,680	6,440	5,040
27	5,780	6,060	4,860	5,500	5,220	6,840	*6,440	7,740	5,590	*5,880	6,060	5,040
28	5,590	6,640	4,860	5,400	*5,130	6,260	6,740	7,840	*5,590	5,590	5,780	5,130
29	5,970	*6,440	*4,770	5,400	-	*5,970	7,040	7,040	5,590	5,400	5,590	5,040
30	6,350	6,260	5,130	5,310	-----	5,970	6,840	6,260	5,590	5,310	*5,680	5,040
31	6,440	-	6,540	5,040	-----	5,970	-----	6,060	-----	5,310	5,780	-
Total	182,290	185,940	171,250	173,400	175,180	198,430	242,810	196,260	169,440	173,730	174,520	165,700
Mean	5,880	6,198	5,524	5,594	6,256	6,401	8,094	6,331	5,648	5,604	5,630	5,523
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 17,600 Min 4,770 Mean 7,582 Cfsm - In. -
Water year 1954-55: Max 14,800 Min 4,770 Mean 6,052 Cfsm - In. -

* Discharge measurement made on this day.

SAVANNAH RIVER BASIN

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 (revised).

Records available.--April 1937 to September 1955.

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.--18 years, 623 cfs.

Extremes.--Maximum discharge during year, 3,220 cfs Apr. 20 (gage height, 10.0 ft); minimum, 104 cfs Oct. 3, 4.

1937-55: 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.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 2 to Mar. 8)

0.6	100	6.0	997
2.0	228	8.0	1,870
4.0	491	10.0	3,220

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	136	278	278	528	440	491	473	817	223	473	244
2	107	136	278	306	509	440	456	440	762	193	473	342
3	104	136	278	330	491	424	491	409	661	178	491	440
4	104	136	278	342	456	424	509	368	528	159	*456	473
5	107	136	278	342	440	409	456	342	409	164	395	509
6	107	136	300	*368	440	409	*440	318	342	188	342	661
7	111	141	318	395	569	395	456	294	283	188	318	614
8	123	146	318	409	614	395	491	272	250	198	318	614
9	128	150	330	456	614	395	528	256	228	203	294	614
10	123	154	342	491	614	395	569	234	213	228	256	569
11	123	154	342	548	614	395	591	223	228	256	228	456
12	123	159	355	569	637	395	661	*208	244	278	223	363
13	123	159	395	528	661	395	665	203	223	294	228	330
14	119	164	424	473	736	409	873	266	218	294	228	409
15	123	173	440	440	933	424	1,100	342	213	342	239	*509
16	123	183	424	424	*965	424	1,140	473	203	368	278	473
17	119	213	409	424	817	424	1,420	569	193	381	318	440
18	115	228	381	456	685	409	1,510	814	198	1,250	330	473
19	111	234	368	509	614	424	2,410	710	234	1,560	330	424
20	107	244	342	528	548	491	3,060	762	261	1,340	300	361
21	107	250	342	509	509	509	2,160	903	*278	1,030	266	355
22	107	250	342	491	491	528	1,510	1,340	288	685	283	330
23	111	261	330	491	456	528	1,180	1,250	278	509	306	288
24	111	278	318	548	456	528	965	1,030	283	473	355	261
25	115	294	318	614	456	509	845	965	288	491	342	244
26	115	294	300	637	456	548	736	965	306	661	355	250
27	*115	294	294	661	456	614	661	873	330	903	381	250
28	115	288	294	661	456	685	591	1,100	318	933	342	239
29	123	283	288	637	-	685	528	1,460	294	736	288	234
30	136	278	283	591	-----	614	491	1,210	261	569	256	228
31	141	--	283	548	-----	528	-----	965	-----	491	239	--
Total	3,603	6,088	10,270	15,004	16,221	14,592	28,004	19,837	9,632	15,766	9,931	12,022
Mean	116	203	331	484	579	471	933	640	321	509	320	461
Cfsm	0.180	0.314	0.512	0.749	0.896	0.729	1.44	0.991	0.497	0.788	0.495	0.621
In.	0.21	0.35	0.59	0.86	0.93	0.64	1.61	1.14	0.55	0.91	0.57	0.69
Calendar year 1953: Max			1,180	Min	64	Mean	341	Cfsm	0.528	In.	7.06	
Water year 1954-55: Max			3,060	Min	104	Mean	441	Cfsm	0.663	In.	9.25	

Peak discharge (base, 2,000 cfs).--Apr. 20 (4 a.m.), 3,220 cfs (10.0 ft).

* Discharge measurement made 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 1955 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.--18 years, 11,050 cfs.

Extremes.--Maximum discharge during year, 15,500 cfs Apr. 23 (gage height, 11.35 ft); minimum daily, 5,310 cfs Dec. 30.

1937-55: Maximum discharge observed, 128,000 cfs Aug. 21, 22, 1940 (gage height, 23.6 ft); minimum daily 2,830 cfs Oct. 19, 25-28, 1941.

1921-55: Maximum gage height, 29.7 cfs Oct. 6, 1929; minimum, 1.21 ft Sept. 11, 1951.

Remarks.--Records good. Considerable regulation by Clark Hill Reservoir (see p. 267 for change in monthly contents), Stevens Creek powerplant, and New Savannah Bluff lock and dam above station.

Revisions (water years).--WSP 1112: 1940.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 31 to Sept. 17)

4.1	5,310	7.0	8,260
4.5	5,670	9.0	10,900
5.0	6,160	12.0	17,100

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,670	6,460	6,760	6,260	6,160	*6,060	6,760	8,040	*7,490	6,260	7,060	6,360
2	5,580	*6,460	6,660	6,760	*5,960	5,960	6,960	7,710	7,490	6,060	6,760	6,360
3	5,760	6,260	6,460	6,560	5,860	5,860	7,380	7,380	7,380	5,760	6,360	6,260
4	6,160	6,060	6,460	6,260	5,760	5,860	7,490	7,270	6,960	5,580	6,060	6,460
5	6,360	6,160	6,360	6,260	5,760	6,160	7,270	6,960	6,560	5,490	5,960	7,160
6	6,160	6,560	6,360	6,460	5,760	6,960	7,060	6,660	6,260	5,490	5,960	7,930
7	5,860	6,760	6,160	6,760	6,060	7,160	7,060	6,460	6,160	5,760	6,260	8,040
8	5,760	6,660	6,260	6,560	6,460	6,960	7,060	6,360	5,960	5,960	6,560	7,710
9	5,860	6,560	6,360	6,360	7,600	6,860	7,160	6,560	5,960	6,060	6,260	7,600
10	6,160	6,460	6,460	6,260	9,480	6,860	7,490	6,360	6,060	5,960	5,860	7,490
11	6,260	6,160	6,360	5,960	10,700	6,960	7,930	6,160	6,060	5,960	5,760	7,060
12	6,160	6,160	6,260	5,860	11,200	7,060	7,930	5,960	5,960	6,060	5,760	6,760
13	5,960	6,360	6,360	5,760	10,700	7,270	7,820	5,960	5,860	6,060	5,670	6,560
14	5,760	6,560	6,360	5,860	9,340	7,380	8,380	5,860	5,760	6,060	5,670	6,660
15	5,760	6,560	6,260	5,860	8,040	6,960	9,220	5,960	5,670	6,060	5,670	7,060
16	5,670	6,460	6,260	6,160	7,380	6,660	10,200	6,260	5,580	6,360	5,760	7,160
17	5,760	6,360	6,160	6,260	7,060	6,860	11,500	6,460	5,670	6,480	5,960	7,060
18	5,760	6,560	6,160	5,960	7,060	6,760	12,500	6,460	5,760	6,260	6,160	6,560
19	5,760	6,660	6,160	5,960	7,160	6,960	13,300	6,560	5,860	5,960	6,360	7,160
20	5,760	6,660	6,160	6,060	7,270	7,380	14,100	6,660	6,260	5,760	6,260	6,260
21	5,760	6,560	6,060	6,260	7,600	7,820	14,800	6,560	6,560	6,160	6,660	6,160
22	5,760	6,560	5,860	6,360	7,380	7,820	15,200	6,860	6,760	6,960	6,460	6,060
23	5,760	6,460	5,760	6,860	6,960	7,710	15,200	7,380	6,860	7,380	6,160	5,960
24	5,960	6,360	5,760	7,160	6,660	7,930	14,300	7,710	6,660	7,380	6,060	5,860
25	6,360	6,360	5,580	6,860	6,560	7,820	12,700	8,500	6,360	6,960	6,460	5,760
26	6,160	6,460	5,490	6,760	6,460	7,820	11,200	9,480	6,060	6,560	5,860	5,670
27	5,960	6,360	5,400	6,660	6,360	7,930	*9,620	9,900	6,160	*6,360	7,270	5,670
28	5,860	6,460	*5,400	6,560	6,160	7,820	8,620	9,480	*6,360	6,360	7,160	5,670
29	5,760	6,760	5,400	6,360	-	*7,380	8,150	9,100	6,360	6,260	6,760	5,760
30	5,960	*6,860	5,310	6,360	-----	6,960	8,150	8,620	6,360	6,460	*6,460	5,670
31	6,260	-	5,490	6,360	-----	6,760	-----	7,820	-----	6,960	6,360	-
Total	183,500	194,100	188,310	196,760	204,910	218,520	292,510	223,470	189,220	193,180	193,700	197,110
Mean	5,913	6,470	6,075	6,347	7,318	7,049	9,750	7,209	6,307	6,232	6,248	6,570
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954 : Max 18,800 Min 5,310 Mean 8,017 Cfsm - In. -
Water year 1954-55 : Max 15,200 Min 5,310 Mean 6,782 Cfsm - In. -

* Discharge measurement made on this day.

Morgan Creek near Chapel Hill, N. C.

Location.--Lat 35°53'51", long 79°05'27", 600 ft downstream from site of University Lake Dam which was completed in 1932, 1,100 ft downstream from Neville Creek, 1½ miles southwest of Carrboro, 2½ miles southwest of Chapel Hill, Orange County, and 7 miles upstream from mouth.

Drainage area.--29.1 sq mi (revised).

Records available.--January 1923 to June 1932 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 315.41 ft above mean sea level, datum of 1929 (levels by N. C. Department of Conservation and Development). Prior to Oct. 23, 1931, water-stage recorder at site 600 ft upstream at datum 1.96 ft higher.

Average discharge.--8 years (1923-31), 32.6 cfs.

Extremes.--1923-32: Maximum discharge, about 30,000 cfs Aug. 4, 1924 (gage height, about 25.0 ft, from floodmarks), from rating curve extended above 4,500 cfs on basis of velocity-area studies; minimum daily, 0.47 cfs Sept. 11, 13, 1925.

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	Mar. 13, 1923	1,690	8.50
602	1925	Jan. 11, 1925	1,570	8.21
727	1932	Mar. 6, 1932	2,450	12.20

Remarks.--A diversion by city of Chapel Hill for water supply, beginning July 9, 1925, and ranging up to about 1 cfs, is included in the discharge records. Station discontinued when University Lake Dam was completed.

Revisions.--Revised figures of discharge, in cubic feet per second, for periods in the water years 1924, 1927, 1928, 1929, and 1931, superseding those published in WSP 582, 642, 662, 682, and 712 are given herewith:

June 30, 1924.....	712	May 10, 1929.....	51
July 1, 1924.....	978	June 25, 1929.....	18
Nov. 27, 1926.....	10	Dec. 17, 1930.....	3
Apr. 27, 1928.....	1,090	May 29, 1931.....	12

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
June 1924.....	712	7.2	48.2	1.66	1.85
July.....	978	-	59.6	2.05	2.36
Water year 1923-24.....	-	3.8	55.8	1.91	26.01
Calendar year 1924.....	-	7.2	62.5	2.15	29.22
November 1926.....	24	1.9	4.94	.170	.19
Calendar year 1926.....	537	1.1	18.9	.649	8.81
Water year 1926-27.....	477	1.1	19.2	.660	8.95
April 1928.....	1,090	15.0	85.2	2.93	3.27
Water year 1927-28.....	-	2.7	43.8	1.51	20.51
Calendar year 1928.....	-	3.8	41.2	1.42	19.26
May 1929.....	184	16.4	34.5	1.19	1.37
June.....	176	12.0	35.7	1.23	1.37
Water year 1928-29.....	1,140	6.9	36.4	1.25	17.01
Calendar year 1929.....	1,910	6.9	52.0	1.79	24.28
December 1930.....	119	3	17.9	.615	.71
Calendar year 1930.....	687	1.08	19.4	.667	9.04
May 1931.....	167	10.2	30.2	1.04	1.20
Water year 1930-31.....	952	1.08	22.0	.756	10.27
Calendar year 1931.....	952	1.5	21.7	.746	10.14

Broad River at Alston, S. C.

Location.--Lat 34°15', long 81°19', at Southern Railway bridge at Alston, Fairfield County.
Drainage area.--4,790 sq mi (revised).

Records available.--July to September 1896 (gage heights only), October 1896 to December 1907 (discontinued). Published as "near Alston" 1900-1902.

Gage.--Chain gage read once daily to June 1905 and twice daily thereafter. Altitude of gage is 220 ft (from topographic maps).

Average discharge.--11 years, 7,705 cfs.

Extremes.--1896-1907: Maximum discharge, 140,000 cfs June 7, 1903 (gage height, 29.02 ft), from rating curve extended above 72,000 cfs by logarithmic plotting; minimum daily, 785 cfs Oct. 21, 1907.

Remarks.--Some regulation at low and medium flow by powerplant at Neal Shoals (completed in 1904).

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1897-1902, superseding those published in 20th Annual Report, Part 4, 21st Annual Report, Part 4, 22nd Annual Report, Part 4, WSP 75 and 83, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1897		1897-Con.		1899-Con.		1899-Con.		1900-Con.	
Jan. 21	17,800	June 9	35,400	Jan. 15	14,100	Apr. 27	11,800	Apr. 28	10,000
22	20,500	10	21,200	16	10,000	Dec. 12	11,200	29	9,060
23	11,800	11	19,000	17	10,500	13	18,000	30	8,660
24	8,740	28	9,160	18	8,200	24	13,500	June 17	22,200
Feb. 2	11,200			Feb. 5	12,300	25	16,200	18	30,300
3	12,300			6	32,800	30	5,000	19	17,600
4	18,500	1898		7	58,800	31	5,000	20	9,720
5	22,200	Jan. 26	17,000	8	62,000			23	24,000
6	52,700	27	17,200	9	32,400	1900		24	36,800
7	84,800	28	10,200	10	20,500	Jan. 1	4,000	25	22,200
8	65,600	Mar. 5	5,740	11	12,000	2	4,000	26	15,800
9	29,000	Apr. 1	13,200	12	9,700	3	4,000	27	15,200
10	12,600	2	10,000	13	8,500	4	4,000	28	10,800
11	8,320	5	8,600	16	16,800	5	4,000	29	10,200
12	21,400	6	17,800	17	42,900	6	4,000	30	10,200
13	19,200	7	12,600	18	31,700	7	4,000	Oct. 24	12,400
14	17,200	8	8,320	19	22,500	Feb. 11	17,200	25	16,900
15	8,600	28	9,720	20	12,200	12	21,600	26	9,740
16	13,400	Aug. 3	9,180	21	10,400	13	39,100	Nov. 4	14,100
17	10,400	6	11,400	22	11,200	14	71,500	15	12,200
18	9,020	15	12,300	23	9,100	15	51,800	27	22,700
22	8,320	17	8,740	27	35,600	16	25,800	28	10,800
23	11,700	18	9,300	28	58,800	17	14,000	Dec. 4	15,200
24	10,400	19	12,200	Mar. 1	27,200	18	8,780	5	19,600
25	12,900	20	19,800	2	15,600	22	19,800	6	11,200
Mar. 6	8,880	21	17,000	3	11,500	23	20,500	21	13,200
26	8,740	22	9,300	4	13,800	24	11,800	22	17,400
7	29,400	30	14,200	5	13,800	25	14,100	23	13,200
8	17,900	31	10,300	6	23,900	26	8,660	31	10,600
9	11,800	Sept. 8	15,800	7	10,500	Mar. 1	18,200		
10	9,180	7	13,500	8	8,950	2	37,700	1901	
11	14,100	8	19,600	15	10,600	3	30,700	Mar. 27	78,300
12	12,900	9	11,200	16	38,600	4	16,200	28	55,900
13	25,600	24	38,600	17	43,400	5	10,000	Apr. 3	75,000
14	32,800	25	35,200	18	23,900	6	8,660	4	82,400
15	38,600	26	19,400	19	15,600	9	18,900	20	52,100
16	26,900	Oct. 6	16,200	20	42,900	10	16,600	21	66,600
17	21,200	7	18,400	21	36,600	11	11,600	May 22	55,000
18	18,900	8	9,440	22	18,700	12	8,440	23	96,200
19	12,600	22	12,200	23	12,600	16	28,000	24	57,500
20	15,000	23	23,900	24	12,900	17	32,000	Aug. 10	8,550
21	15,200	24	16,200	25	10,900	18	18,400	16	6,200
22	12,000	25	9,180	26	10,000	19	10,000	17	83,100
23	10,200	Dec. 5	12,200	27	9,700	21	12,200	18	67,900
Apr. 24	9,580	6	10,600	28	13,500	22	9,740	28	45,500
1	12,600	7	9,300	29	14,700	23	8,510	29	45,000
2	11,200	22	8,320	30	14,000	25	13,200	30	49,400
3	12,300	23	9,180	31	12,200	26	24,900	Sept. 18	57,200
4	14,700	24	14,700	Apr. 1	18,400	27	16,900	19	63,700
5	38,600	25	10,600	2	11,800	28	11,300	20	45,200
6	64,000	26	8,180	3	8,600	29	8,910	Dec. 30	77,600
7	38,600			5	10,000	Apr. 18	10,900	31	96,200
8	24,400	1899		6	10,000	19	53,700		
9	20,500	Jan. 7	20,400	7	9,100	20	39,600	1902	
10	12,200	8	36,800	8	16,800	21	44,000	Feb. 2	79,400
11	10,000	9	20,200	9	18,900	22	95,100	3	77,600
12	8,740	10	12,900	10	13,000	23	59,400	Mar. 1	69,600
13	8,180	11	9,700	11	10,200	24	28,300	2	78,800
June 6	11,700	12	13,200	12	10,000	25	22,200	3	47,400
7	13,400	13	13,600	13	8,500	26	13,800	June 14	3,680
8	37,700	14	11,700	26	11,400	27	13,400		

REVISIONS OF RECORDS FOR DISCONTINUED STATIONS

Broad River at Alston, S. C.--Continued

Revised figures of monthly discharge, in cubic feet per second, 1897-1902

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
January 1897.....	20,500	2,520	4,704	0.982	1.13
February.....	84,800	3,000	17,910	3.74	3.90
March.....	38,600	4,397	13,189	2.75	3.17
April.....	64,000	4,215	12,177	2.54	2.83
June.....	37,700	2,850	7,878	1.64	1.85
Water year 1896-97.....	84,800	1,470	7,094	1.48	20.09
Calendar year 1897.....	84,800	1,900	6,736	1.41	19.08
January 1898.....	17,200	2,850	4,846	1.01	1.16
February.....	10,360	3,000	4,269	.891	1.03
March.....	17,800	3,460	6,411	1.54	1.50
April.....	19,800	3,460	7,772	1.62	1.87
August.....	38,600	2,010	8,534	1.78	1.99
September.....	38,600	1,815	4,736	.989	13.43
Water year 1897-98.....					
October 1898.....	23,900	2,850	7,040	1.47	1.70
December.....	14,700	3,227	6,016	1.28	1.45
Calendar year 1898.....	38,600	1,815	5,330	1.11	15.12
January 1899.....	36,800	4,000	9,104	1.90	2.19
February.....	62,000	6,050	20,087	4.19	4.36
March.....	43,400	6,300	16,420	3.43	3.95
April.....	18,900	5,675	9,443	1.97	2.20
Water year 1898-99.....	62,000	1,520	7,525	1.57	21.32
December 1899.....	16,200	2,430	5,246	1.10	1.27
Calendar year 1899.....	62,000	1,460	7,010	1.46	19.86
January 1900.....	17,420	1,940	4,686	.978	1.13
February.....	71,500	2,500	14,171	2.96	3.08
March.....	37,700	6,410	14,163	2.96	3.41
April.....	95,100	4,770	17,031	3.56	3.97
June.....	36,800	3,850	10,840	2.26	2.52
Water year 1899-1900.....	95,100	1,460	7,431	1.55	21.07
October 1900.....	16,900	1,870	3,980	.831	.96
November.....	22,700	2,500	5,345	1.12	1.25
December.....	19,600	3,275	7,084	1.48	1.71
Calendar year 1900.....	95,100	1,535	7,835	1.64	22.22
March 1901.....	78,300	3,340	10,776	2.25	2.59
April.....	82,400	5,075	20,435	4.27	4.76
May.....	96,200	3,765	13,877	2.90	3.34
August.....	83,100	3,765	27,732	5.79	6.68
September.....	63,700	6,750	17,101	3.57	3.98
Water year 1900-1901.....	96,200	1,870	11,786	2.46	33.41
December 1901.....	96,200	4,450	15,020	3.14	3.62
Calendar year 1901.....	96,200	3,340	12,690	2.65	35.97
February 1902.....	79,400	6,610	19,798	4.13	4.30
March.....	73,800	8,550	19,056	3.98	4.59
June.....	44,018	3,425	7,469	1.56	1.74
Water year 1901-2.....	96,200	2,835	9,286	1.94	26.33

Saluda River near Waterloo, S. C.

Location.--Lat 34°18', long 82°05', at Charleston & Western Carolina Railway bridge, seven-eighths of a mile downstream from Reedy River and 4½ miles south of Waterloo, Laurens County.

Drainage area.--1,056 sq mi.

Records available.--August to September 1896 (gage heights only), October to December 1896 (monthly records only in WSP 1303), and January 1897 to December 1905 (discontinued). Published as "at Waterloo" prior to January 1902.

Gage.--Chain gage read once daily. Altitude of gage is 400 ft (from river-profile map). Prior to Jan. 1, 1902, at datum 1.5 ft higher.

Average discharge.--9 years (1896-1905), 1,954 cfs.

Extremes.--1896-1905: Maximum daily discharge, 18,970 cfs June 8, 1903; minimum daily, 200 cfs Oct. 25, 1904.

Remarks.--Low and medium flow regulated since 1904 by powerplants above station.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1899, 1901-4, superseding those published in 20th Annual Report, Part 4 and WSP 65, 75, 98, and 127, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1901		1901-Con.		1901-Con.	
Mar. 26	7,400	Aug. 16	15,950	Sept. 17	9,300
27	13,950	17	14,150	18	17,200
28	10,400	18	9,900	19	13,900
Apr. 2	8,550	19	7,080	20	6,300
3	14,750	20	6,060	28	6,780
4	12,900	21	6,300	29	11,600
May 21	8,650	22	6,180	30	16,450
22	14,300	23	7,650	31	14,250
23	12,800	27	8,100		
24	6,500	28	12,250	1903	
June 14	6,300	29	13,850	July 4	2,440
15	15,100	30	12,250		
16	12,600	31	9,700	1904	
17	7,400	Sept. 1	10,300	May 28	958
Aug. 15	9,950	2	8,400		

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1898.....	3,830	900	1,797	1.70	1.96
Calendar year 1898.....	8,230	290	1,562	1.48	20.12
Water year 1898-99.....	15,850	430	2,254	2.13	28.98
March 1901.....	13,950	843	2,417	2.29	2.64
April.....	14,750	1,048	3,650	3.46	3.86
May.....	14,300	650	2,824	2.67	3.08
June.....	15,100	1,114	3,424	3.24	3.62
August.....	15,950	430	5,869	5.56	6.41
September.....	17,200	1,556	4,261	4.04	4.51
Water year 1900-1901.....	17,200	415	2,730	2.59	35.12
December 1901.....	16,450	526	3,065	2.90	3.34
Calendar year 1901.....	17,200	430	2,838	2.69	36.50
Water year 1901-2.....	18,500	360	2,065	1.96	26.52
July 1903.....	2,440	561	1,373	1.30	1.50
Water year 1902-3.....	18,970	442	2,613	2.47	33.57
Calendar year 1903.....	18,970	404	2,447	2.32	31.46
May 1904.....	1,625	386	881	.834	.962
Water year 1903-4.....	15,070	229	1,157	1.10	14.921
Calendar year 1904.....	15,070	200	1,102	1.04	14.187

Measurements of streamflow in the South Atlantic slope basins, James River to Savannah River basin 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 308.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955

James River basin, Va.						
Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Falling Springs Creek.	Jackson River	Lat 37°52'05", long 79°56'45", at bridge on U. S. Highway 220, 2.1 miles southeast of town of Falling Spring.	-		Oct. 6 Nov. 3 Jan. 11 Feb. 8 Mar. 21 Apr. 18 May 24 June 15 July 20 Aug. 23 Sept. 15	*4.61 *7.36 *15.6 57.2 37.4 *26.1 *11.6 *9.14 *6.87 *7.96 *6.41
Cowpasture River.	James River..	Lat 38°19'30", long 79°26'15", at bridge on U. S. Highway 250, 1½ miles west of headwaters.	-		Oct. 4	*2.45
South Fork Moormans River.	Moormans River.	Lat 38°08'08", long 78°45'12", 1,000 ft above Charlottesville Reservoir, 4.6 miles west of Whitehall.	-		Oct. 8 Oct. 27 Nov. 29	*.008 *.541 3.96
Mechum River.	South Fork Rivanna River.	Lat 38°06'15", long 78°35'35", at bridge on State Highway 614, 3.3 miles north of Ivy.	-		Oct. 11	*4.08
Chowan River basin, N. C.						
Meherrin River.	Chowan River.	Lat 36°32'20", long 77°11'17", at bridge on State Highway 35, 1½ miles above Tarrara Creek and 1½ miles north of Severn, Northampton County.	1,120	1950-54	Oct. 7	*15.9
Potocasi Creek.	Meherrin River.	Lat 36°22'15", long 77°01'40", at highway bridge 2¼ miles north of Union, Hertford County, and 3¼ miles upstream from Bells Branch.	191	1953-54	Oct. 1	*.70
Cole Creek...	Sarem Creek..	Lat 36°28'30", long 76°46'30", at bridge on U. S. Highway 158, 3 miles northwest of Gatesville, Gates County.	30.9	1953	Oct. 8	a.07
Ahoskie Creek	Wiccacoa River.	Lat 36°14'45", long 76°56'50", at bridge on State Highway 350, 1.2 miles north of Powellsville, Bertie County.	134	1953	Oct. 8	a.09
Duke Swamp...	Bennetts Creek.	Lat 36°28'10", long 76°38'10", at highway bridge 1½ miles below Middle Swamp and 2½ miles northwest of Sunbury, Gates County.	36.2	1949, 1951-54	Oct. 8	0
Dillard Creek	Chowan River.	Lat 36°14'40", long 76°39'30" at bridge on State Highway 32, 1½ miles north of Small's Crossroads, Chowan County, 2½ miles above mouth.	-		Oct. 6	0
Pollock Swamp	Pembroke Creek.	Lat 36°07'00", long 76°37'30", at highway bridge 1½ miles above State Highway 32 and 2½ miles southeast of Valhalla, Chowan County.	-		Oct. 6	0
Cashie River basin, N. C.						
Cashie River.	Abermarle Sound.	Lat 36°06'10", long 77°05'40" at head of Burden's millpond, 2½ miles northeast of Republican, Bertie County.	-		Oct. 6	0
Roquist Creek	Cashie River	Lat 35°57', long 76°56', 3¼ miles above mouth and 3¼ miles south of Windsor, Bertie County.	62.2	1949-51, 1953-54	Oct. 6	0

* Base flow.
a Estimated.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Roanoke River basin, N. C.

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Big Creek....	Dan River....	Lat 36°27'10", long 80°17'10", at highway bridge $\frac{1}{2}$ mile above mouth, $2\frac{1}{2}$ miles north of Moores Springs, Stokes County.	46.4		Oct. 8	*4.12
North Double Creek.	....do.....	Lat 36°26'00", long 80°17'40", at highway bridge $\frac{1}{2}$ mile above mouth and 1 mile north of Moores Springs, Stokes County.	12.8		Oct. 8	*.48
Snow Creek....	....do.....	Lat 36°27'40", long 80°09'00", at highway bridge 1 mile below Little Snow Creek and 3 miles west of Prestonville, Stokes County.	22.6		Oct. 7	*1.11
Mill Creek....	....do.....	Lat 36°17'40", long 80°11'00", at highway bridge $\frac{1}{2}$ mile above mouth at Walnut Cove, Stokes County.			Oct. 7	*.36
Town Fork Creek.	....do.....	Lat 36°17', long 80°09', at bridge on U. S. Highway 311, at Walnut Cove, Stokes County, 4 miles from mouth.	114	1925, 1949-54	Oct. 14	*4.10
Belews Creek.	....do.....	Lat 36°15'50", long 80°03'10", at highway bridge 1 mile below Little East Belews Creek and $5\frac{1}{2}$ miles southeast of Walnut Cove, Stokes County.	34.5		Oct. 14	*1.70
West Belews Creek.	Belews Creek.	Lat 36°16'20", long 80°04'20", at highway bridge 3 miles above mouth and $4\frac{1}{2}$ miles east of Walnut Cove, Stokes County.	12.0		Oct. 14	*.68
Belews Creek	Dan River....	Lat 36°19', long 80°02', at highway bridge $1\frac{1}{2}$ miles above mouth and $1\frac{1}{2}$ miles east of Pine Hall, Stokes County.	79.3	1954	Oct. 7	*1.13
Big Beaver Island Creek.	....do.....	Lat 36°23', long 79°59', at bridge on U. S. Highway 311, $\frac{3}{4}$ mile above mouth and 1 mile southwest of Madison, Rockingham County.	23.7	1954	Oct. 7	*.13
Smith Creek..	Roanoke River	Lat 36°51'30", long 78°14'30", at highway bridge, 0.2 mile below Ellington Creek, 5 miles west of Paschall and 6 miles northwest of Norlina, Warren County.	30.7		July 7	*6.48
Hub Quarter Creek.	....do.....	Lat 36°30'20", long 77°55'10", at highway bridge 2 miles above mouth, $3\frac{1}{2}$ miles northwest of Enterprise, Warren County.	15.8		Oct. 1	*1.46
Stonehouse Creek.	....do.....	Lat 36°29'40", long 77°55'10", at highway bridge 2 miles above mouth and $2\frac{1}{2}$ miles northeast of Enterprise, Warren County.	22.2		Oct. 1	*.32

Pamlico River basin, N. C.

Gibbs Creek..	Tar River....	Lat 36°11'30", long 78°30'50", at highway bridge $\frac{1}{2}$ mile above mouth and $2\frac{1}{2}$ miles south of Fairport, Granville County.	7.84	1954	Oct. 7	*0.56
Buffalo Creek	....do.....	Lat 36°07'10", long 78°20'40", at highway bridge 1 mile above mouth, 3 miles east of Mitchner's crossroads, and 3 miles northwest of Louisburg, Franklin County.	9.64	1954	Oct. 7	*.11
Tar River....	Pamlico Sound	Lat 36°05'40", long 78°18'00", at bridge on Highways 39A and 59A, at Louisburg, Franklin County.	429		Oct. 7	*10.5
Cedar Creek..	Tar River....	Lat 36°04'30", long 78°27'20", at highway bridge, $1\frac{1}{2}$ miles above mouth and $1\frac{1}{2}$ miles south of Franklinton, Franklin County.	11.7	1954	Oct. 7	*1.30
Brandy Creek.	Cedar Creek..	Lat 36°03'20", long 78°27'20", at highway bridge, $1\frac{1}{2}$ miles above mouth and 4.2 miles south of Franklinton, Franklin County.	5.24		Oct. 7	*1.07
Cedar Creek..	Tar River....	Lat 36°03'10", long 78°20'20", at bridge on State Highway 59, 4 miles southwest of Louisburg, Franklin County.	47.8	1954	Oct. 8	*3.91
Crooked Creek	....do.....	Lat 35°56'10", long 77°15'10", at bridge on State Highway 39, $\frac{1}{2}$ mile above Norris Creek and $1\frac{1}{2}$ miles south of Bunn, Franklin County.	30.6	1954	July 1	5.43
Sapony Creek.	....do.....	Lat 35°56'10", long 77°56'30", at bridge on Highway 58, $2\frac{1}{2}$ miles southeast of Nashville, Nash County.	-		Oct. 8	0

* Base flow.

DISCHARGE 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 basin during the water year 1955--Continued

Pamlico River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Sandy Creek..	Swift Creek..	Lat 36°12'40", long 78°13'40", at highway bridge, 1½ miles south of Alert and 9 miles north of Louisburg, Franklin County.	53.7	1954	July 1	*7.50
Do.....	.....do.....	Lat 36°07'40", long 78°01'20", at highway bridge, ½ mile above Red Bud Swamp and ¾ miles northeast of Castalia, Nash County.	119	1954	Oct. 8	3.04
Fishing Creek	Tar River....	Lat 36°23', long 78°11', at bridge on first road above State Highway 59, ½ mile below Phoebe Creek and 2 miles southwest of Warrenton, Warren County.	44.7	1949-54	July 7	*5.44
Shocco Creek.	Fishing Creek	Lat 36°17'30", long 78°13'40", at bridge on State Highway 59, 1½ miles southwest of Warrenton, Warren County.	15.7	1954	July 1	*2.52
Tar River....	Pamlico River	Lat 35°47'35", long 77°33'05", at highway bridge, 0.3 mile east of Old Sparta, Edgecombe County, and ½ mile below Town Creek.	2,419		Oct. 5	*57.1
Conetoe Creek	Tar River....	Lat 35°42'55", long 77°28'40", at highway bridge, 1½ miles above mouth and 2½ miles northeast of Falkland, Pitt County.	99.1	1954	Nov. 30	*5.10
Tar River....	Pamlico River	Lat 35°41'35", long 77°29'15", at highway bridge just below Conetoe Creek, 1½ miles east of Falkland, Pitt County.	2,588	1954	Nov. 4 Nov. 30	194 545

Neuse River basin, N. C.

Little River.	Eno River....	Lat 36°08'20", long 78°54'24", at bridge on U. S. Highway 501, 1 mile above Mountain Creek and 1½ miles northeast of Orange Factory, Durham County.	81.6	1930, 1954	June 17 Aug. 23	*7.82 *48.2
Eno River....	Atlantic Ocean.	Lat 36°06'10", long 79°08'40", at highway bridge, ½ mile above McGowan Creek and 4½ miles southeast of Cedar Grove, Orange County.	33.0	1954	Oct. 7 Dec. 29	*.03 8.31
McGowan Creek	Eno River....	Lat 36°05'20", long 79°09'30", at highway bridge, ½ mile north of Erland, Orange County, and 1½ miles above mouth.	5.24	1954	Oct. 7	0
Eno River....	Atlantic Ocean.	Lat 36°04'10", long 79°07'50", at highway bridge at city water supply intake, 2 miles southwest of center of Hillsboro, Orange County.	61.0	1954	Oct. 7 Dec. 29	*.09 15.8
Do.....	.....do.....	Lat 36°04'00", long 79°06'40", at unnamed tributary, above Belvue Cotton Mill outfall, 1 mile south of center of Hillsboro, Orange County.	61.4	1954	Oct. 7	*.04
Cates Creek..	Eno River....	Lat 36°04'00", long 79°05'10", at bridge on U. S. Highway 70A, 1½ miles southeast of center of Hillsboro, Orange County.	4.65	1954	Oct. 7	0
Eno River....	Atlantic Ocean.	Lat 36°04'40", long 79°00'40", at ford, 2 miles above Stony Creek, 5 miles east of Hillsboro, Orange County, and 6 miles southeast of Schley.	97.8	1954	Oct. 13	*.06
Do.....	.....do.....	Lat 36°04'19", long 78°54'32", at bridge on U. S. Highway 501, 4 miles north of Braggtown, Durham County.	141	1954	Oct. 13 Dec. 29 Jan. 10	*.02 27.5 21.7
Knap of Reeds Creek.	Neuse River..	Lat 36°09'20", long 78°46'26", above Camp Butner, 3 miles west of Lyons and 5 miles northwest of Creedmoor, Granville County.	29.5	1954	Oct. 21	.32
Do.....	.....do.....	Lat 36°08'36", long 78°47'09", at Camp Butner, 4 miles west of Lyons, 4 miles above mouth, and 5½ miles west of Creedmoor, Granville County.	38.2	1954	Oct. 21 Jan. 6	.58 5.23
Do.....	.....do.....	Lat 36°07'38", long 78°47'56", 200 ft below unnamed creek at Camp Butner, 2½ miles above mouth, and 6 miles west of Creedmoor, Granville County.	42.0	1954	Oct. 21 Jan. 6	2.69 7.42
Do.....	.....do.....	Lat 36°05'35", long 78°47'56", ½ mile above mouth and 6½ miles northeast of Braggtown, Durham County.	47.1	1954	Oct. 21	2.75

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Neuse River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Newlight Creek.	Neuse River..	Lat 36°00'30", long 78°37'50", at highway bridge, 1 mile above mouth and 4½ miles west of Purnell, Wake County.	19.2	1954	June 17	*5.10
Upper Barton Creek.	....do.....	Lat 35°58'20", long 78°39'20", at highway bridge, 1 mile above mouth, 2 miles northwest of Bayleaf, Wake County.	12.2	1952, 1954	June 17	*1.68
Horse Creek..	....do.....	Lat 35°58'10", long 78°35'30", at bridge on U. S. Highway 284, 1 mile above mouth, and 4½ miles west of Wake Forest, Wake County.	21.0	1949-54	Oct. 6	*2.81
Honeycutt Creek.	....do.....	Lat 35°56'25", long 78°35'15", at highway bridge, 0.3 mile west of Falls, Wake County.	6.54		Oct. 1	*1.01
Richland Creek.	....do.....	Lat 35°59'45", long 78°30'40", at highway bridge, ½ mile north of Wake Forest, Wake County.	6.28	1954	Oct. 13 Oct. 28 Nov. 18 Jan. 5	*1.62 *2.32 *2.33 3.19
Do.....	....do.....	Lat 35°57'41", long 78°31'30", at bridge on State Highway 98, 0.7 mile west of Wake Forest, Wake County.	6.04	1954	Oct. 14 Oct. 28 Nov. 18 Jan. 5	*2.36 *3.47 *3.69 4.74
Do.....	....do.....	Lat 35°57'45", long 78°32'30", at bridge on U. S. Highway 1, 2 miles southwest of Wake Forest, Wake County.	10.0	1954	Oct. 14 Nov. 18	*2.82 4.61
Do.....	....do.....	Lat 35°56'48", long 78°33'09", at site ½ mile above mouth and 3.6 miles southwest of Wake Forest, Wake County.	13.0		Nov. 15 Jan. 6	5.18 6.44
Neuse River..	Atlantic Ocean.	Lat 35°54'40", long 78°33'30", 500 ft above Seaboard Air Line RR. bridge and 1½ miles north-east of Neuse, Wake County.	790	1926	Oct. 5 Oct. 27	*31.8 127
Smith Creek..	Neuse River..	Lat 35°57'20", long 78°30'10", just below Austin Creek, 1½ miles south of Wake Forest, Wake County.	12.4	1954	Oct. 14 Oct. 29 Nov. 18	*.42 *3.75 2.77
Do.....	....do.....	Lat 35°57'00", long 78°30'30", at highway bridge, 1 mile below Austin Creek and 1 mile south-east of Forestville, Wake County.	12.9		Oct. 14 Oct. 29	*1.87 *7.80
Do.....	....do.....	Lat 35°55'10", long 78°32'05", at highway bridge ½ mile above mouth and 4½ miles west of Rolesville, Wake County.	22.8		Oct. 14 Oct. 29	*4.55 *14.7
Mill Creek...	....do.....	Lat 35°54'32", long 78°31'36", at highway bridge, 0.2 mile above Toms Creek, and 2.1 miles northwest of Wake Crossroads, Wake County.	-		Oct. 1	*.59
Toms Creek...	Mill Creek...	Lat 35°54'30", long 78°31'30", at highway bridge, 0.3 mile above Mill Creek and 1.8 miles north-west of Wake Crossroads, Wake County.	-		Oct. 1	*.22
Peeples Creek	Neuse River..	Lat 35°51'50", long 78°30'55", at highway bridge, ½ mile upstream from Hodges Creek and 1½ miles south of Wake Crossroads, Wake County.	9.86	1954	July 1	*2.17
Hodges Creek.	Peeples Creek	Lat 35°51'16", long 78°29'24", at highway bridge, 0.2 mile below Lake Mirl and 5½ miles south of Rolesville, Wake County.	-		Oct. 1	*1.06
Do.....	....do.....	Lat 35°51'21", long 78°30'48", at highway bridge, 0.5 mile above mouth and 5½ miles southwest of Rolesville, Wake County.	-		Oct. 1	*1.45
Beaverdam Creek.	Neuse River..	Lat 35°49'10", long 78°30'10", at highway bridge, 0.9 mile above Neuseoca Lake and 2.3 miles northwest of Knightdale, Wake County.	-		Oct. 1	*.49
Neuse River..	Atlantic Ocean.	Lat 35°50'53", long 78°31'48", at bridge on U. S. Highway 64 at Milburnie, 5½ miles east of State Capitol Bldg., in Raleigh, Wake County.	857		Oct. 5 Oct. 27 May 18 June 28 July 20	*41.0 *157.0 *184.00 *95.5 185
Little Briar.	Briar Creek..	Lat 35°52'55", long 78°48'07", at highway bridge, 0.8 mile west of Administration Bldg. at Raleigh-Durham Airport and 2.8 miles east of Nelson, Wake County.	8.60		June 1 July 19	*a.05 0

* Base flow
a Estimated.

DISCHARGE 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 basin during the water year 1955--Continued

Neuse River basin, N. C.--Continued						
Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Crabtree Creek.	Neuse River..	Lat 35°50'15", long 78°46'52", at highway bridge, 0.8 mile below Briar Creek and 3.8 miles north of Cary, Wake County.	49.9		May 19 July 1 July 13 July 19	a0.60 *a.01 *1.18 *a.06
Do.....	.....do.....	Lat 35°50'15", long 78°40'25", at bridge on U. S. Highways 15A and 70, 1½ miles above Mine Creek and 4½ miles northwest of Raleigh, Wake County.	97.8	1941, 1947, 1949-50, 1952-54	Apr. 17 Sept. 9 Oct. 6 May 19 June 9 June 23 June 29 July 12	b55.8 ab2.32 *1.72 *7.54 *5.02 *6.10 *3.38 28.5
Mine Creek...	Crabtree Creek.	Lat 35°51'19", long 78°39'43", at highway bridge, 1¼ miles above mouth and 3½ miles west of Millbrook, Wake County.	8.75	1951-54	Sept. 6	*1.35
Big Branch...	.....do.....	Lat 35°51'05", long 78°37'23", at highway bridge, 1 mile west of Millbrook, Wake County, and 2½ miles above mouth.	1.29	1951-54	Sept. 6	*.86
Crabtree Creek.	Neuse River..	Lat 35°48'57", long 78°37'34", at bridge on U. S. Highway 1, 0.5 mile below Seaboard Air Line RR. and 2½ miles northeast of State Capitol Bldg., in Raleigh, Wake County.	120		May 19 June 9 June 23 June 29 July 12	35.3 4.28 *4.80 *4.60 51.0
Do.....	.....do.....	Lat 35°45'56", long 78°32'24", 500 ft above mouth and 3.7 miles southwest of Knightdale, Wake County.	145		May 20 June 23 June 28 July 6 July 12 July 19	17.4 19.5 15.3 20.6 69.3 13.7
Walnut Creek.	.....do.....	Lat 35°45'10", long 78°38'58", at bridge on old U. S. Highway 15A, 0.6 mile below Norfolk Southern Ry. and 1.9 miles south of Capitol Bldg., in Raleigh, Wake County.	16.1		June 1 July 1 July 13 July 20	1.44 .92 1.22 .75
Unnamed tributary.	Big Branch...	Lat 35°43'32", long 78°34'19", just below sewage outfall from Jones Sausage Co., 1.9 miles northeast of Garner, Wake County.	-		May 20 July 1	.42 .22
Big Branch...	Walnut Creek.	Lat 35°44'28", long 78°34'06", at highway bridge, 1 mile above mouth and 3½ miles northwest of Auburn, Wake County.	12.1	1953-54	Oct. 8 May 19 July 1 July 13	*.42 *2.53 *1.22 *3.26
Walnut Creek.	Neuse River..	Lat 35°45'00", long 78°32'29", at highway bridge, 0.2 mile above mouth and 6½ miles southeast of Capitol Bldg., in Raleigh, Wake County.	46.0		May 20 June 28 July 12 July 20	11.4 8.47 31.7 9.22
Poplar Creek.	.....do.....	Lat 35°44'00", long 78°28'30", ½ mile above mouth, 2 miles west of Shotwell, and 4 miles south of Knightdale, Wake County.	8.67	1954	Oct. 8 June 9 July 19	*1.19 *2.94 *1.48
Neuse River..	Atlantic Ocean.	Lat 35°43'44", long 78°30'45", at highway bridge, 1½ miles below Poplar Creek and 6 miles south of Knightdale, Wake County.	1,079		May 18 July 6	234 *103
Marks Creek..	Neuse River..	Lat 35°42'20", long 78°25'50", at highway bridge, 1 mile above mouth, 3½ miles west of Archers Lodge, and 4 miles northeast of Clayton, Johnston County.	25.7	1954	Oct. 6	*1.41
Mill Creek...	.....do.....	Lat 35°32'37", long 78°18'00", at highway bridge, 500 ft below Southern Ry. and 1.1 miles west of Selma, Johnston County.	3.5		May 18 June 11 June 24 June 29 July 21	*a.01 0 *a.04 0 1.71
..do.....	.....do.....	Lat 35°32'43", long 78°18'55", at highway bridge, 1.1 miles above mouth and 1.4 miles west of Selma, Johnston County.	-		May 18 June 11 June 24 June 29 July 21	.60 .15 .09 .42 2.07
Neuse River..	Atlantic Ocean.	Lat 35°30'53", long 78°20'54", at bridge on U. S. Highway 70 at Smithfield, Johnston County.	1,201	1924-25	June 3 July 14 Sept. 1	276 889 3,240
Swift Creek.	Neuse River..	Lat 35°41'15", long 78°40'45", at highway bridge on U. S. Highway 15A, 1½ miles above Yates Pond Creek and 2 miles north of McCullers, Wake County.	39.9	1949-50, 1954	Oct. 8	0

* Base flow.

a Estimated.

b Made in water year 1954, not previously published.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Neuse River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Little Creek.	Swift Creek..	Lat 35°39'16", long 78°28'49", at highway bridge, $\frac{1}{2}$ mile below unnamed tributary and 1.4 miles northwest of Clayton, Johnston County.	4.24		May 20 June 9 June 14 June 29 July 20 July 27	*0.35 *.33 *.13 *.36 18.8 *.41
Do.....	.....do.....	Lat 35°38'03", long 78°27'39", at highway bridge, 2.3 miles southwest of Clayton, Johnston County, and $4\frac{1}{2}$ miles above mouth.	6.57		May 20 June 9 June 14 June 29 July 20	.63 .76 a.01 .65 2.24
Swift Creek..	Neuse River..	Lat 35°31'10", long 78°22'50", at bridge on State Highway 210, $1\frac{1}{2}$ miles above mouth and 2.2 miles west of Smithfield, Johnston County.	157		June 3 June 24 Sept.16	31.2 9.58 85.0
Middle Creek.	.....do.....	Lat 35°30', long 78°24', at bridge on State Highway 210, $1\frac{1}{2}$ miles above mouth, 2 miles below Steep Hill Branch, and 3 miles west of Smithfield, Johnston County.	124	1949-54	Oct. 6 June 2 July 21 Sept.16	*.22 *36.0 *18.9 122
Black Creek..	.....do.....	Lat 35°28'08", long 78°27'25", at highway bridge, $2\frac{1}{2}$ miles northwest of Four Oaks, Johnston County, and 5 miles from mouth.	79.0	1949-54	July 14 July 27	337 *8.23
Do.....	.....do.....	Lat 35°28'00", long 78°23'25", at Atlantic Coast Line RR., 100 ft below Holt Lake Dam, 1 mile above mouth, and 3 miles northeast of Four Oaks, Johnston County.	96.7		June 15 July 27	4.32 13.3
Driving Branch.	Hannah Creek.	Lat 35°23'07", long 78°31'52", at highway bridge, 1.1 miles east of Benson, Johnston County.			June 2 June 11 June 15 June 30 July 22	.39 .42 .37 1.00 1.06
Hannah Creek.	Mill Creek...	Lat 35°24'06", long 78°29'42", at highway bridge, 0.8 mile above Stony Fork Creek and 3.5 miles east of Benson, Johnston County.	12.7		June 2 June 11 June 24 July 22	*.05 0 *.46 3.59
Buck Swamp...	Thoroughfare Swamp.	Lat 35°15', long 78°05', at highway bridge, $1\frac{1}{2}$ miles above mouth and $2\frac{1}{2}$ miles west of Dudley, Wayne County.	17.0	1949-54	Sept.16	19.2
Beaverdam Creek.	Neuse River..	Lat 35°26'45", long 78°08'09", at highway bridge, 0.2 mile below Johnston-Wayne County line, and 2.0 miles southeast of Princeton, Johnston County.	2.90		June 24 July 14 Aug. 31	2.93 1.97 1.27
Buffalo Creek	Little River.	Lat 35°48'30", long 78°23'00", at highway bridge, 1 mile below Norfolk Southern Ry. and 1 mile southwest of Wendell, Wake County.	15.9		June 14 June 23 July 6 Aug. 30	*3.69 *1.65 *3.52 6.54
Do.....	.....do.....	Lat 35°45'00", long 78°21'34", at highway bridge, $\frac{1}{2}$ mile above Lake Wendell, and 2.7 miles south of Wendell, Wake County.	21.4		June 14 June 23 July 6 Aug. 30	*4.75 4.45 4.90 10.6
Little River.	Neuse River..	Lat 35°23'39", long 78°01'27", 0.3 mile above highway bridge, 1.5 miles above mouth, and 1.8 miles northwest of Goldsboro, Wayne County.	311		June 2 June 16	23.8 40.6
Unnamed tributary.	.....do.....	Lat 35°19'33", long 78°01'20", at highway bridge, $\frac{1}{2}$ mile east of Genoa, and $4\frac{1}{2}$ miles southwest of Goldsboro, Wayne County.	4.67	1954	Oct. 7	*.50
Stony Creek..	.....do.....	Lat 35°23', long 77°58', at bridge on U. S. Highway 70, 2 miles east of Goldsboro, Wayne County, and $3\frac{1}{2}$ miles above mouth.	21.0	1949-54	June 2 June 16	*.94 *.39
Do.....	.....do.....	Lat 35°20'50", long 77°58'48", at highway bridge 1.2 miles above mouth and 2.7 miles southeast of Goldsboro, Wayne County.	26.1		June 6 June 16 Aug. 5	*.97 .40 14.1
Sleepy Creek.	.....do.....	Lat 35°15'00", long 77°57'10", at highway bridge, $1\frac{1}{2}$ miles above mouth and 5 miles east of Dudley, Wayne County.	9.79	1954	Oct. 7	*5.64
Walnut Creek.	.....do.....	Lat 35°18'54", long 77°52'51", at highway bridge, 2.7 miles southwest of Best, Wayne County, $4\frac{1}{2}$ miles above mouth.	9.14		Sept.14	13.1

* Base flow.

a Estimated.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Neuse River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Walnut Creek.	Neuse River..	Lat 35°16'50", long 77°52'00", at highway bridge, 1½ miles above mouth and 4 miles north of Seven Springs, Wayne County.	19.5	1954	Oct. 7	*2.64
Dailys Creek.	....do.....	Lat 35°12'40", long 77°48'10", at bridge on State Highway 55, 2 miles above mouth and 2½ miles north of Liddell, Lenoir County.	4.35	1954	Oct. 8	*.57
Bear Creek...	....do.....	Lat 35°18'50", long 77°49'00", at bridge on U. S. Highway 70, 1½ miles northwest of LaGrange, Lenoir County.	52.2	1954	Sept.14	51.4
Mosley Creek.	Falling Creek	Lat 35°18'39", long 77°46'18", at highway bridge, 1.1 miles east of LaGrange, Lenoir County, and 1.8 miles above Groundnut Creek.	3.76		Sept.16	3.39
Falling Creek	Neuse River..	Lat 35°15'40", long 77°41'30", at bridge on U. S. Highway 70, at Falling Creek, Lenoir County, 4 miles above mouth and 6¼ miles west of Kingston.	45.4	1949-54	Oct. 8 Sept.14 Sept.30	*1.88 41.6 94.2
Do.....	....do.....	Lat 35°15'15", long 77°40'22", at highway bridge just below sewer outfall, 1.2 miles east of Falling Creek, Lenoir County.			Sept.14	60.0
Stonyton Creek.	....do.....	Lat 35°20'17", long 77°36'47", at highway bridge, 1.2 miles southwest of Mewborn Crossroads and 5 miles northwest of center of Kingston, Lenoir County.	1.68		July 28 Sept. 9 Sept.15	3.79 1.40 .56
Briery Run...	Stonyton Creek.	Lat 35°18'22", long 77°36'47", at highway bridge, 3 miles northwest center of Kingston, Lenoir County, and 4½ miles above mouth.	4.05		July 28 Aug. 31 Sept. 9 Sept.15	0 *1.56 5.42 2.21
Rocky Branch.	Little Creek.	Lat 35°49'30", long 78°18'40", above Zebulon sewer outfall, 1½ miles east of Zebulon, Wake County.	1.94		May 11 June 14 July 21	*a.13 *.10 *.21
Do.....	....do.....	Lat 35°49'30", long 78°18'40", below Zebulon sewer outfall, 1½ miles east of Zebulon, Wake County.	1.94		June 14 July 21	.48 .44
Little Creek.	Moccasin Creek.	Lat 35°48'37", long 78°15'55", at site of old gaging station at bridge on State Highway 39, 0.7 mile above mouth and 2.7 miles southeast of southeast of Zebulon, Wake County.	5.47	1927,1930	June 29 July 21	*1.06 .69
Unnamed tributary.	Turkey Creek.	Lat 35°48'37", long 78°11'03", at bridge on State Highway 231, ½ mile above mouth and 2 miles northeast of Middlesex, Nash County.	2.23		July 28 Sept.13 Sept.28	*.13 .97 1.61
Bailey Branch	Haw Branch...	Lat 35°46'45", long 78°07'49", just below sewer outfall at Bailey, Nash County, ¼ mile above mouth.			July 28 Sept. 9 Sept.28	.21 3.80 4.11
Haw Branch...	Turkey Creek.	Lat 35°46'38", long 78°08'35", at highway bridge 500 ft below Norfolk Southern Ry., 1½ miles west of Bailey, Nash County.	7.69		July 28 Aug. 30 Sept.28	.54 5.22 11.7
Beaverdam Creek.	....do.....	Lat 35°46'09", long 78°12'11", at bridge on State Highway 231, 1.3 miles south of Middlesex, Nash County.	1.35		July 28	.07.
Contentnea Creek.	Neuse River..	Lat 35°41'50", long 78°03'36", at bridge on State Highway 42, 0.3 mile above Marsh Swamp and 0.4 mile southwest of Rock Ridge, Wilson County.	169		Aug. 23 Sept.13 Sept.28	220 142 338
Hominy Swamp.	Contentnea Creek.	Lat 35°44'03", long 77°55'33", at bridge on U. S. Highway 264A, 0.3 mile above Norfolk Southern Ry., 1.1 miles northwest of center of Wilson, Wilson County.	5.55		Aug. 27 Sept.14 Sept.29	*1.17 *1.18 3.65
Do.....	....do.....	Lat 35°43'03", long 77°55'09", at Lodge Street in city of Wilson, 1.1 miles below Norfolk Southern Ry., Wilson, Wilson County.	7.56		July 28 Aug. 30 Sept.14 Sept.29	.34 1.18 2.04 6.49
Do.....	....do.....	Lat 35°42'30", long 77°54'45", at bridge on U. S. Highway 301, 0.2 mile below Atlantic Coast Line RR., 1.2 miles south of Wilson, Wilson County.	8.42		July 28 Aug. 30 Sept.14	3.88 6.73 5.89

* Base flow.
a Estimated.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Neuse River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Black Creek..	Contentnea Creek.	Lat 35°37'43", long 78°00'19", at highway bridge, 0.5 mile below Lee Swamp and 1.1 miles south of Lucama, Wilson County.	20.0		Sept. 13	12.3
Unnamed tributary.	Black Creek..	Lat 35°38'36", long 77°59'09", 1.0 mile above mouth, 1.3 miles east of Lucama, Wilson County.	4.53		Aug. 23 Sept. 9 Sept. 13	4.46 4.63 *2.23
Black Creek..	Contentnea Creek.	Lat 35°39'15", 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		July 27	0
Aycock Swamp.	Black Creek..	Lat 35°32'42", long 77°57'48", just below sewer outfall, 1 mile east of Fremont, Wayne County.	-		Sept. 13 Sept. 15 Sept. 30	1.21 .56 .78
Do.....	....do.....	Lat 35°32'24", long 77°56'48", at highway bridge, 2.3 miles east of Fremont, Wayne County.	-		Sept. 13 Sept. 30	2.52 3.72
Contentnea Creek.	Neuse River..	Lat 35°36'09", long 77°49'48", at bridge on State Highway 22, 0.6 mile southwest of Stantonsburg, Wilson County, and 3 miles below Black Creek.	385	1941	Sept. 13	384
Unnamed tributary.	Toisnot Swamp	Lat 35°44'12", long 77°54'03", 800 ft above mouth, 1½ miles northeast of center of Wilson, Wilson County.	.31		Aug. 23	1.04
Rainbow Creek	Contentnea Creek.	Lat 35°25'30", long 77°35'40", at highway bridge, ¼ mile above mouth at Hookerton, Greene County.	15.3	1954	Oct. 7	*1.48
Mussell Run..	....do.....	Lat 35°26'25", long 77°34'05", at highway bridge, 1 mile above mouth and 2 miles northeast of Hookerton, Greene County.	11.2	1954	Oct. 7	*.04
Neuse River..	Atlantic Ocean.	Lat 35°18'44", long 77°18'19", at highway bridge, 1½ miles above Core Creek, and 2 miles east of Fort Barnwell, Craven County.	3,897		Oct. 1 Nov. 5 Feb. 18 Dec. 1 May 31	137 227 5,120 630 1,480
Core Creek...	Neuse River..	Lat 35°15'10", long 77°17'10", 3½ miles southeast of Fort Barnwell, Craven County, and 7 miles above mouth.	59.2	1949-54	Oct. 8	*.69
Little Swift Creek.	Swift Creek..	Lat 35°14'11", long 77°03'33", at highway bridge, 0.5 mile above Beaverdam Swamp and Norfolk Southern Ry. and 1.6 miles south of Ernul, Craven County.	33.9		Oct. 9	*.29

Cape Fear River basin, N. C.

Haw River....	Cape Fear River.	Lat 36°13'40", long 79°54'55", at bridge on U. S. Highway 220, 0.7 mile below Atlantic and Yadkin Ry. and 2½ miles north of Summerfield, Guilford County.	20.2	1951-54	Oct. 7	*0.10
Do.....	....do.....	Lat 36°15'53", long 79°39'06", at bridge on U. S. Highway 29, 500 ft above Southern Ry., and 2 miles south of Poushee, Rockingham County.	77.6	1954	Oct. 6	*.06
Troublesome Creek.	....do.....	Lat 36°18'14", long 79°43'14", at bridge on U. S. Highway 158, 1½ miles northeast of Monroeton and 5 miles southwest of intersection of U. S. Highways 158 and 29 in Reidsville, Rockingham County.	44.2	1954	Oct. 7	*.74
Little Troublesome Creek.	Haw River....	Lat 36°19'17", long 79°39'06", 0.7 mile above Southern Ry., 1 mile south of intersection of U. S. Highways 29 and 158 in Reidsville, Rockingham County.	5.45	1954	Oct. 14	.60
Do.....	....do.....	Lat 36°16'53", long 79°36'39", at highway bridge, 1 mile above mouth and 1 mile west of Thompsonville, Rockingham County.	12.6	1954	Nov. 18	3.44
Reedy Fork...	....do.....	Lat 36°08'21", long 79°59'48", at highway bridge, 2.2 miles northeast of Colfax, Guilford County, and 2.4 miles above Beaver Creek.	5.84		Oct. 28 Nov. 17	1.84 23.3

* Base flow.

DISCHARGE 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 basin during the water year 1955--Continued

Cape Fear River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Reedy Creek..	Haw River....	Lat 36°10'26", long 79°52'27", at bridge on U. S. Highway 220, 1 mile above Atlantic and Yaddin Ry., and 1.8 miles southeast of Summerfield, Guilford County.	34.1		Oct. 28 Nov. 18	8.64 22.3
Brush Creek..	Reedy Fork....	Lat 36°09'24", long 79°53'30", at first bridge above U. S. Highway 220, 1.3 miles above mouth and 3 miles south of Summerfield, Guilford County.	10.4		Oct. 6	*.35
Horsepen Creek.	....do.....	Lat 36°07'20", long 79°53'02", at highway bridge, 1 mile upstream from unnamed tributary, 3½ miles north of Guilford College RR. station, and 6½ miles northwest of intersection of U. S. Highways 70 and 220 in Greensboro, Guilford County.	9.10	1954	Oct. 6	1.86
Unnamed tributary.	Horsepen Creek.	Lat 36°07'08", long 79°52'10", at highway bridge, 1 mile above mouth, 3½ miles northeast of Guilford College RR. station and 5 miles northwest of intersection of U. S. Highways 70 and 220 in Greensboro, Guilford County.	3.05	1954	Oct. 6	*.04
South Buffalo Creek.	Buffalo Creek	Lat 36°06'45", long 79°40'20", at highway bridge, 0.8 mile northwest of McLeansville, Guilford County.	43.2	1954	Oct. 12 Dec. 9	*1.41 72.9
North Buffalo Creek.	....do.....	Lat 36°04'46", long 78°48'20", at Garland Drive, 1,700 ft above Southern Ry. and 1 mile northwest of intersection of U. S. Highways 70 and 220 in Greensboro, Guilford County.	10.9	1954	Dec. 10	10.6
Do.....	....do.....	Lat 36°05'52", long 78°46'58", at Church St., 300 ft above unnamed tributary, 600 ft above Southern Ry., and 1.8 miles north of intersection of U. S. Highways 70 and 220, in Greensboro, Guilford County.	14.2	1954	Oct. 13 Nov. 17	*.45 7.62
Buffalo Creek	Reedy Fork....	Lat 36°09'40", long 79°36'10", at highway bridge, 1 mile above mouth and 5 miles northwest of Gibsonville, Guilford County.	99.7	1954	Dec. 9	*81.6
Buttermilk Creek.	Haw River....	Lat 36°11', long 79°26', at highway bridge, 1.6 miles above Stony Creek, 2 miles southwest of Union Ridge, and 7½ miles northwest of Burlington, Alamance County.	15.4	1952-54	Oct. 14 Oct. 29 Dec. 18 Jan. 27 Apr. 19 May 26 June 16 July 13 Aug. 26	a.03 4.54 17.4 8.97 3.08 2.43 .90 2.26 .61
Jordan Creek.	Buttermilk Creek.	Lat 36°11', long 79°24', at highway bridge on first road above mouth, 1 mile south of Union Ridge, Alamance County, 2 miles above mouth, and 7 miles north of Burlington.	21.8	1941, 1949-54	Oct. 14 Oct. 29 Dec. 18 Jan. 27 Apr. 9 May 26 June 16 July 13 Aug. 26	0 2.53 25.4 21.3 6.28 15.2 .41 45.0 1.68
Back Creek...	Haw River....	Lat 36°07'02", long 79°17'40", at highway bridge, 1½ miles above Quaker Creek and 2 miles northwest of Mebane, Alamance County.	47.2		Oct. 5	0
Quaker Creek.	Back Creek...	Lat 36°06'23", long 79°18'54", at highway bridge, ½ mile above mouth and 2½ miles west of Mebane, Alamance County.	14.8		Oct. 5	0
Back Creek...	Haw River....	Lat 36°06', long 76°20', at bridge on U. S. Highway 70, 1½ miles below Quaker Creek and 2 miles east of Haw River, Alamance County.	71.0	1950-51, 1954	Oct. 5	*a.1
Moadams Creek	Back Creek...	Lat 36°05'40", long 79°16'30", above sewer outfall at Mebane, Alamance County.	1.07	1954	Oct. 20	0
Do.....	....do.....	Lat 36°05'40", long 79°16'50", below sewer outfall at Mebane, Alamance County.	-	1954	Oct. 20	.54
Do.....	....do.....	Lat 36°05'20", long 79°18'00", at highway bridge, 1½ miles above mouth, 2½ miles west of Mebane, Alamance County.	3.38	1954	Oct. 20	.62

* Base flow.
a Estimated.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Cape Fear River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Little Alamance Creek	Haw River....	Lat 36°03'15", long 79°38'14", at highway bridge, $\frac{1}{2}$ miles west of Whitsett, Guilford County, and $\frac{3}{4}$ miles east of Greensboro.	38.4	1950-54	Oct. 5	*0.04
Little Creek.	Alamance Creek.	Lat 36°04'50", long 79°33'00", at U. S. Highway 70, 40 ft above Cedar Creek and $\frac{1}{2}$ miles south of Gibsonville, Guilford County.	3.44	1954	Oct. 12	0
Do.....	.....do.....	Lat 36°03'00", long 79°31'00", at highway bridge, 2 miles north-west of Alamance, Alamance County.	10.8	1954	Oct. 12	*.08
Alamance Creek.	Haw River....	Lat 36°01'40", long 79°29'10", at bridge on State Highway 49, $\frac{1}{2}$ mile northeast of Bellemont, $\frac{1}{2}$ miles above Stinking Creek, and 2 miles east of Alamance, Alamance County.	157	1954	Dec. 8	124
Stinking Creek.	Alamance Creek.	Lat 36°00'16", long 79°27'57", at highway bridge, 1 mile below South Prong Stinking Creek and 2 miles southwest of Bellemont, Alamance County.	63.6		Oct. 5	.04
Little Alamance Creek	.....do.....	Lat 36°02'00", long 79°24'00", 150 ft below highway bridge, 1 mile above mouth, and 2 miles east of Bellemont, Alamance County.	14.7	1954	Oct. 12	*.42
Haw Creek....	Haw River....	Lat 36°00'00", long 79°20'03", at highway bridge, $\frac{1}{4}$ mile above mouth and $\frac{1}{2}$ mile south of Swepsonville, Alamance County.	27.7		Oct. 5	*a.04
Haw River....	Cape Fear River.	Lat 35°56'33", long 79°18'50", at highway bridge at Saxapahaw, Alamance County.	1,020		Nov. 16 Jan. 4	201 537
Cane Creek....	Haw River....	Lat 35°55'40", long 79°15'00", at highway bridge, 1 mile above mouth, 3 miles southwest of Teer, and 10 miles west of Carrboro, Orange County.	35.8	1954	Oct. 5 June 16	*.21 4.38
Collins Creek	.....do.....	Lat 35°51'20", long 79°13'50", at highway bridge, $\frac{1}{2}$ miles above mouth, and 2.8 miles north of Terrells, Chatham County.	-		Oct. 5	0
Dry Creek....	.....do.....	Lat 35°48'00", long 79°12'40", at highway bridge, $\frac{1}{2}$ miles south-east of Terrells, Chatham County, and $\frac{1}{4}$ miles above mouth.	-		Oct. 5	0
Pokesberry Creek.	.....do.....	Lat 35°43'29", long 79°12'30", at highway bridge, 1.2 miles above mouth and 5 miles northeast of Pittsboro, Chatham County.	12.2		Oct. 5	a.04
New Hope River.	.....do.....	Lat 35°57'34", long 78°58'55", at bridge on U. S. Highways 15 and 501, $2\frac{1}{2}$ miles southwest of intersection of State Highway 751 and U. S. Highway 15 in Durham, Durham County.	36.4	1954	Oct. 22 Aug. 23	.73 8.47
Sandy Creek..	New Hope River.	Lat 35°56'06", long 78°58'06", at bridge on U. S. Highways 15 and 501, 1 mile above mouth near Durham, Durham County.	6.21	1954	Oct. 20	.31
New Hope River.	Haw River....	Lat 35°56'33", long 78°58'32", at bridge on Jefferson Davis Road, $\frac{1}{2}$ mile below Sandy Creek, near Durham, Durham County.	52.2	1954	Oct. 13 Oct. 22	1.30 1.82
Do.....	.....do.....	Lat 35°55'00", long 78°58'13", at bridge on State Highway 54, 1 mile above Third Fork Creek, $\frac{1}{2}$ miles east of Chapel Hill, and $5\frac{1}{2}$ miles southwest of Durham, Durham County.	57.1	1949-54	Oct. 22	2.74
Third Fork Creek.	New Hope River.	Lat 35°57'40", long 78°54'56", at bridge on Cornwallis Road, in Durham, Durham County.	7.51	1954	Oct. 13 Oct. 20	.14 .58
New Hope River	Haw River....	Lat 35°53'05", long 78°57'40", at highway bridge, $\frac{1}{2}$ mile southwest of Bland, Durham County, and 2 miles downstream from Third Fork Creek.	76.3	1954	Oct. 14	2.74
Unnamed tributary.	New Hope River.	Lat 35°53'42", long 78°57'12", at highway bridge, $\frac{1}{2}$ miles northeast of Bland, Durham County, and $\frac{1}{2}$ miles above mouth.	.96		Oct. 22	0
Little Creek.	.....do.....	Lat 35°53'14", long 78°59'05", at highway bridge, $\frac{1}{2}$ miles above mouth and $\frac{1}{2}$ miles west of Bland, Durham County.	23.7	1954	Dec. 8	*29.2

* Base flow.
a Estimated.

DISCHARGE 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 basin during the water year 1955--Continued

Cape Fear River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Morgan Creek.	New Hope River.	Lat 35°53'31", long 79°02'17", above sewage treatment plant at Chapel Hill, Orange County.	-	1954	Dec. 15 Aug. 23	49.1 7.91
Do.....	.....do.....	Lat 35°51'59", long 79°00'35", at highway bridge, at Durham-Chatham County line, 4 miles north of Farrington, Chatham County.	-	1954	Oct. 14 Oct. 15	.90 104
New Hope River.	Haw River....	Lat 35°47'44", long 79°00'32", at highway bridge, $\frac{1}{2}$ mile south of Farrington, Chatham County, and $\frac{1}{2}$ mile above Bush Creek.	230	1954	Oct. 14 Oct. 21	2.94 28.2
Whiteoak Creek.	New Hope River.	Lat 35°45', long 79°00", at highway bridge $\frac{1}{2}$ miles northeast of Seaforth, Chatham County.	23.6	1954	Oct. 5	0
Beaver Creek.	.....do.....	Lat 35°43'30", long 78°53'40", at highway bridge, 2 miles west of Apex, Wake County, and 2 miles north of Friendship.	6.53	1954	Oct. 21 Dec. 7	.24 5.83
West Fork Deep River.	Deep River...	Lat 36°05'17", long 80°01'26", at highway bridge, 1.7 miles south of Colfax, Guilford County.	2.18		Oct. 8	*.12
Do.....	.....do.....	Lat 36°03'20", long 80°01'19", at highway bridge, 4 miles south of Colfax and $\frac{1}{2}$ miles southwest of Friendship, Guilford County.	11.5		Oct. 8	*1.15
Unnamed tributary.	West Fork Deep River.	Lat 36°02'32", long 80°00'04", at highway bridge, $\frac{1}{4}$ mile above mouth and $2\frac{1}{2}$ miles northwest of Deep River, Guilford County.	1.95		Oct. 8	*.11
Do.....	.....do.....	Lat 35°02'19", long 79°59'33", at highway bridge, $\frac{1}{2}$ mile above mouth and 1.8 miles northwest of Deep River, Guilford County.	.61		Oct. 8	*a.01
Hiatt Branch.	.....do.....	Lat 36°00'50", long 80°00'05", at highway bridge 0.7 mile above mouth and $2\frac{1}{2}$ miles southeast of Deep River, Guilford County.	4.09		Oct. 8	*.07
Unnamed tributary.	.....do.....	Lat 35°58'59", long 80°00'09", at highway bridge, 1.1 miles above mouth, and 2.1 miles northwest of intersection of U. S. Highways 311 and 70 in High Point, Guilford County.	2.48		Oct. 8	*a.04
East Fork Deep River.	Deep River...	Lat 36°04'50", long 79°57'28", at bridge on State Highway 68, $\frac{1}{2}$ mile south of Friendship, Guilford County.	3.91		Oct. 8	*.89
Bull Run.....	.....do.....	Lat 35°58'48", long 79°55'37", at highway bridge, at Oakdale, 0.1 mile above mouth and 1 mile southeast of Jamestown, Guilford County.	7.75	1954	Dec. 9	32.2
Richland Creek.	.....do.....	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	Oct. 6 Dec. 9	.59 68.7
Reddicks Creek.	.....do.....	Lat 35°56'00", long 79°52'20", at highway bridge, 0.8 mile above mouth and $\frac{1}{2}$ miles north of Guilford-Randolph County line.	-		Oct. 8	0
Muddy Creek..	.....do.....	Lat 35°52'35", long 79°52'45", at site of former gaging station (1934-42) 600 ft above highway bridge, 2 miles east of Glenola brick plant, 3 miles southwest of Coltrane's mill, and 7 miles southeast of Archdale, Randolph County.	16.2		Oct. 6	0
Bob Branch...	Muddy Creek..	Lat 35°51'20", long 79°51'20", at highway bridge, $\frac{1}{2}$ mile above mouth and 1.9 miles north of New Market, Randolph County.	2.85		Oct. 6	a0
Muddy Creek..	Deep River...	Lat 35°51', long 79°50', at highway bridge, 1.8 miles above mouth and 2.7 miles northwest of Handleman, Randolph County.	26.2		Oct. 6	*a.01
Polecat Creek	.....do.....	Lat 35°53', long 79°46', at highway bridge, $\frac{1}{4}$ mile below unnamed tributary, 2 miles east of Level Cross, and 4 miles southwest of Climax, Guilford County.	28.1	1954	Oct. 6 Aug. 24	0 5.10
Little Polecat Creek.	Polecat Creek	Lat 35°52'30", long 79°45'20", at highway bridge 1.2 miles above mouth and 3.3 miles east of Level Cross, Randolph County.	-		Oct. 6	0
Haskett Creek	Deep River...	Lat 35°45', long 79°45', 500 ft above Penwood Branch, $\frac{1}{2}$ miles north of intersection of State Highway 49A and U. S. Highway 220 in Asheboro, Randolph County.	5.62	1954	Dec. 8	2.57

* Base flow.
a Estimated.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Cape Fear River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Bush Creek...	Deep River...	Lat 35°45'30", long 79°43'30", at highway bridge, 0.7 mile above mouth and 1 mile northwest of Franklinville, Randolph County.	13.2		Oct. 6	*a.02
Sandy Creek...	....do.....	Lat 35°51', long 79°38', at bridge on State Highway 49A, $\frac{1}{2}$ miles west of Liberty, Randolph County.	23.4	1949-54	Oct. 6	0
Reed Creek...	....do.....	Lat 35°43'20", long 79°38'30", at bridge on State Highway 22, 1 mile above mouth and 1 mile southeast of Ramseur, Randolph County.	-		Oct. 7	0
Mill Creek...	....do.....	Lat 35°41', long 79°38', at highway bridge, $\frac{1}{2}$ mile above mouth and 3 miles northeast of Coleridge, Randolph County.	16.5		Oct. 7	*a.04
Richland Creek.	....do.....	Lat 35°58', long 79°43', at highway bridge, $\frac{3}{4}$ miles above Bachelors Creek and 8 miles southeast of Asheboro, Randolph County.	34.0	1949-54	Oct. 7	*a.15
Brush Creek...	....do.....	Lat 35°36', long 79°35', at bridge on State Highways 22 and 902, at Cheeks, 3 miles southeast of Coleridge, Randolph County.	67.0	1954	Oct. 7 Aug. 24	*a.28 *12.6
Fork Creek...	....do.....	Lat 35°32', long 79°29', at highway bridge, 3 miles above mouth, $\frac{7}{8}$ miles east of Seagrove, and 8 miles south of Coleridge, Randolph County.	36.5	1954	Oct. 7 Aug. 24	*.28 *6.69
Bear Creek...	....do.....	Lat 35°26'40", long 79°38'30", at highway bridge, 2 $\frac{1}{2}$ miles northeast of Spies, 3 miles above Cabin Creek, and 4 miles northwest of Robbins, Moore County.	44.0	1954	Oct. 12	.09
Falls Creek...	....do.....	Lat 35°30'30", long 79°31'00", at highway bridge, 1.2 miles north of High Falls, Moore County, and 1.4 miles above mouth.	2.97		Oct. 7	0
Little Indian Creek.	....do.....	Lat 35°32'00", long 79°20'00", at highway bridge, 1 mile above mouth and 1.5 miles northeast of Caribton, Chatham County.	-		Oct. 7	0
Unnamed tributary.	Rocky River..	Lat 35°50', long 79°24', at Atlantic and Yadkin Ry. bridge, $\frac{1}{2}$ mile above mouth and $\frac{1}{4}$ miles south of Liberty, Randolph County.	0.28	1954	Oct. 6	*a.02
Rocky River..	Deep River...	Lat 35°45', long 79°33', at bridge on U. S. Highway 421, 2 miles south of Liberty, Randolph County.	4.74	1954	Oct. 19	.74
Do.....	....do.....	Lat 35°48'10", long 79°29'40", at highway bridge, $\frac{1}{2}$ mile above North Branch Rocky River and $\frac{3}{4}$ miles east of Staley, Randolph County.	14.6	1954	Oct. 6	0
North Branch.	Rocky River..	Lat 35°51'50", long 79°32'40", at bridge on State Highway 49, at Randolph-Alamance County line, $\frac{1}{2}$ miles northeast of Liberty, Randolph County.	2.65	1954	Oct. 19	.55
Love Creek...	....do.....	Lat 35°43'50", long 79°26'10", 200 ft above sewage plant, $\frac{1}{2}$ miles above mouth and $\frac{1}{2}$ miles east of intersection of U. S. Highways 64 and 421 in Siler City, Chatham County.	7.74	1954	Oct. 6 Oct. 19 Dec. 8	.14 2.69 5.71
Do.....	....do.....	Lat 35°43'50", long 79°25'53", 400 ft below sewage plant, $\frac{1}{2}$ miles above mouth, and $\frac{1}{2}$ miles east of intersection of U. S. Highways 64 and 421 in Siler City, Chatham County.	-	1954	Oct. 6 Oct. 20	.69 2.18
Unnamed tributary.	....do.....	Lat 34°44', long 79°24', at bridge on U. S. Highway 64, 1 mile above mouth and 3.8 miles southwest of Siler Hope, Chatham County.	-		Oct. 6	0
Rocky River..	Deep River...	Lat 35°41'00", long 79°20'00", $\frac{1}{2}$ mile below Hick Creek, 5 miles east of Mount Vernon Springs, Chatham County, and 5 miles northeast of Bonlee.	93.2	1954	Oct. 8 Dec. 17	.49 70.9
Landrum Creek	Rocky River..	Lat 35°41'20", long 79°16'30", at highway bridge, 1.5 miles above mouth and 6 miles southwest of Pittsboro, Chatham County.	14.9		Oct. 5	a.02

* Base flow.
a Estimated.

DISCHARGE 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 basin during the water year 1955--Continued

Cape Fear River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Hollands Creek.	Rocky River..	Lat 35°41'30", long 79°14'40", at highway bridge, 2 miles above mouth and 4 miles southwest of Pittsboro, Chatham County.	-		Oct. 5	0
Bear Creek...	.....do.....	Lat 35°38', long 79°18', at highway bridge, 3 miles northeast of Goldston, Chatham County, 4½ miles below Atlantic and Yadkin R., and 6½ miles from mouth.	43.2	1949-54	Aug. 23	*5.65
Kenneth Creek	Neals Creek..	Lat 35°33'48", long 78°47'46", at bridge on U. S. Highway 15A, 0.3 mile above Lake Laura and 1.7 miles south of Fuquay Springs, Wake County.	5.55		May 18 July 19 July 26 Aug. 23 Oct. 6	.22 .47 1.50 5.64 5.44
Kenneth Branch.	Kenneth Creek	Lat 35°33'41", long 78°47'24", above sewage outfall 1 mile above mouth and 1½ miles south of Fuquay Springs, Wake County.	3.98		May 18 July 19 Aug. 23	*.08 *1.14 2.04
Do.....	.....do.....	Lat 35°33'23", long 78°47'23", below sewage outfall ½ mile above mouth and 1½ miles south of Fuquay Springs, Wake County.	-		May 18 June 29 July 26 Aug. 23	.36 .25 1.13 4.43
Do.....	.....do.....	Lat 35°32'06", long 78°47'20", at highway bridge, 2 miles northeast of Chalybeate, Harnett County, and 3 miles above mouth.	13.5		May 18 July 19 July 26 Aug. 23	*1.54 *2.43 *4.31 20.4
Neals Creek..	Cape Fear River.	Lat 35°25'40", long 78°49'20", at bridge on U. S. Highway 15A, ½ mile above mouth, and 2 miles north of Lillington, Harnett County.	37.6	1954	May 20 Oct. 25	2.71 12.7
Buies Creek..	.....do.....	Lat 35°24'30", long 78°44'47", at bridge on U. S. Highway 421, 0.7 mile southwest of town of Buies Creek, Harnett County.	7.29		May 20 June 29 July 27 Sept. 13	*.38 *1.18 6.98 12.2
Do.....	.....do.....	Lat 35°23'26", long 78°45'04", ½ mile above mouth and 1½ miles southwest of town of Buies Creek, Harnett County.	26.0		June 14 July 27 Sept. 17	*.15 41.2 46.0
Upper Little River.	.....do.....	Lat 35°24'02", long 79°08'38", at highway bridge, 0.8 mile above Gasters Creek and 5 miles southeast of center of Sanford, Lee County.	18.8		May 19 July 29 Aug. 9	*1.63 *1.45 *1.30
Unnamed tributary.	Gathers Creek	Lat 35°26'49", long 79°09'48", below sewage effluent, 1.4 miles southeast of center of Sanford, Lee County.	-		May 19 July 28 Aug. 9	.34 .32 .43
Gathers Creek	Upper Little River.	Lat 35°25'19", long 79°08'25", at highway bridge, 1½ miles above mouth and 3½ miles southeast of center of Sanford, Lee County.	4.36		May 19 July 28 Aug. 9	1.14 1.77 1.51
Upper Little River.	Cape Fear River.	Lat 35°24'00", long 78°06'40", at bridge on State Highway 87, ½ mile below Atlantic Coast Line RR., ½ mile below Juniper Creek, and 1½ miles north of Swan, Lee County.	43.0	1952, 1954	May 19 May 27 July 29 Aug. 9	10.6 4.77 4.17 2.52
Do.....	.....do.....	Lat 35°21', long 78°51', at bridge on State Highway 210, 3 miles southwest of Lillington, Harnett County, and about 9 miles above mouth.	180	1949-54	Oct. 5 June 30 Aug. 25	*.31 *12.4 1,500
Do.....	.....do.....	Lat 35°20'04", long 78°47'02", at bridge on U. S. Highway 15A, 500 ft above Southern Ry. and 1.8 miles north of Bunnlevel, Harnett County.	197	1930	Oct. 13 May 24 June 30	0 *39.8 *14.0
Do.....	.....do.....	Lat 35°19'33", long 78°43'20", at highway bridge, 1½ miles above mouth, 2.7 miles west of Erwin, Harnett County.	210		May 24 July 26	*36.3 185
Stuart Creek.	.....do.....	Lat 35°20'24", long 78°41'30", at bridge on U. S. Highway 421, 1½ miles northwest of Erwin, Harnett County, 1.7 miles above mouth.	13.4		May 18 June 29 July 27 Aug. 25	*.72 *30 2.51 39.2
Do.....	.....do.....	Lat 35°20'10", long 78°41'35", at highway bridge, 1 mile above mouth, 1.2 miles northwest of Erwin, Harnett County.	14.0		May 19	*.67
Do.....	.....do.....	Lat 35°19'40", long 78°41'39", ½ mile above mouth, and 1 mile west of Erwin, Harnett County.	15.6		May 20 July 27 Aug. 25	2.37 4.85 42.2
Joes Fork....	Nicks Creek..	Lat 35°13'08", long 79°28'44", at highway bridge, 1½ miles above mouth, and 1.8 miles northwest of Pinehurst, Moore County.	3.37		May 27 July 8 July 28	2.58 4.69 1.83

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Cape Fear River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi.)	Measured previously (water years)	Date	Discharge (cfs)
Board Creek..	Joes Fork....	Lat 35°13'06", long 79°28'35", just above mouth, 1½ miles north of Pinehurst, Moore County.	0.96		May 27 July 8 July 28	0.94 .76 .66
Joes Fork....	Nicks Creek..	Lat 35°13'37", long 79°27'26", at highway bridge, ½ mile above mouth and 1.8 miles southwest of Eastwood, Moore County.	5.80		May 27 July 8 July 28	3.33 6.45 2.21
Nicks Creek..	Little River.	Lat 35°14'20", long 79°26'40", at bridge on U. S. Highways 15 and 501, 1 mile south of Eastwood and ¾ miles north of Pinehurst, Moore County.	20.5	1954	May 27 July 8 July 28	10.8 13.8 4.81
Little River.	Cape Fear River.	Lat 35°14'58", long 79°18'04", at highway bridge, ½ mile above Mill Creek and 0.8 mile north-east of Lakeview, Moore County.	77.1	1946, 1948	May 26 Sept. 14	38.9 102
McDeeds Creek	Mill Creek....	Lat 35°11'25", long 79°22'56", at bridge on State Highway 22, 1 mile north of Southern Pines, Moore County.	2.24		May 26 July 7 Aug. 10 Sept. 14	*1.38 *1.33 *1.40 *1.94
Do.....	.....do.....	Lat 35°12'05", long 79°22'43", below sewage effluent, 1½ miles northeast of Southern Pines, Moore County.	-		May 26 July 7 Sept. 14	3.32 2.98 4.42
Do.....	.....do.....	Lat 35°13'00", long 79°21'31", at highway bridge, 1.1 miles north of Niagra, Moore County, and 1½ miles above mouth.	7.21		May 26 July 7 Aug. 9 Sept. 14	5.60 4.20 4.76 7.80
Mill Creek...	Little River.	Lat 35°14'12", long 79°19'41", above Crystal Lake, 1½ miles west of Lakeview, Moore County.	16.2		May 26 July 7 Sept. 14	12.5 *4.27 18.7
Do.....	.....do.....	Lat 34°14'27", long 79°18'09", just below Crystal Lake, at Lakeview, Moore County.	20.3		May 26 July 7 July 21 Aug. 9 Sept. 14	16.0 .30 1.67 6.83 24.5
Little River.	Cape Fear River.	Lat 35°14'31", long 79°17'46", at bridge on U. S. Highway 1, at Vass, Moore County.	98.6		May 26 July 8 July 21 Sept. 14	52.4 *9.21 15.4 110
Crane Creek..	Little River.	Lat 35°17', long 79°16', at bridge on U. S. Highway 1, 1½ miles below Herds Creek, and 2 miles northeast of Vass, Moore County.	32.4	1949-54	Aug. 9 Aug. 24	*.40 210
Unnamed tributary.	.....do.....	Lat 35°11'37", long 78°59'36", at highway bridge, 0.3 mile above mouth and 1 mile northwest of Manchester, Cumberland County.	20.0		June 1 July 6	*6.98 *1.84
McDuffie Creek.	.....do.....	Lat 35°11'22", long 78°59'04", 500 ft. below State Highway 87 and 500 ft. above mouth, at Manchester, Cumberland County.	8.13		May 25 July 6 July 28 Aug. 10	4.54 *1.82 *2.41 *1.75
Unnamed tributary.	.....do.....	Lat 35°11'12", long 78°58'38", just above mouth, 1½ miles north of Spring Lake, Cumberland County.	.73		June 1 June 16 July 6 July 19 Aug. 10	.71 .99 .82 .98 .89
Little River.	Cape Fear River.	Lat 35°12'07", long 78°57'12", at bridge on State Highway 210, 1.0 mile above McLeod Creek and 2 miles east of Manchester, Cumberland County.	360		May 25 June 21 July 27	*271 *138 *91.9
Stewarts Creek.	Little River.	Lat 35°16'12", long 78°45'29", at highway bridge, 0.4 mile above mouth and 1 mile north of Linden, Cumberland County.	10.1		May 24 June 17 July 26	*.53 *a.2 11.0
Cross Creek..	Cape Fear River.	Lat 35°03'10", long 78°52'26", at bridge on Cool Spring St. at Fayetteville, Cumberland County.	26.6		May 17 Aug. 10 Sept. 16	*13.2 *7.50 23.9
Hybarts Branch.	Branson Creek	Lat 35°04'35", long 78°56'26", at bridge 2 miles above Branson Creek and ¾ miles northwest of center of Fayetteville, Cumberland County.	.24		June 1 July 19 Aug. 10 Sept. 15	0 a.1 a.02 .20
Do.....	.....do.....	Lat 35°03'50", long 78°55'48", at Morganton Road at Fayetteville, Cumberland County.	1.11		June 1 June 24 July 7 Aug. 10 Sept. 15	a.16 1.18 .27 .30 .80

* Base flow.
a Estimated.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Cape Fear River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Branson Creek.	Cross Creek..	Lat 35°03'07", long 78°55'01", at McBain Drive, 1 mile below Hybarts Branch in Fayetteville, Cumberland County.	3.65		June 1 June 21 July 19	*1.67 *1.82 *2.11
Blounts Creek	....do.....	Lat 35°02'40", long 78°53'31", at Crock St., 200 ft above Atlantic Coast Line RR., in Fayetteville, Cumberland County.	9.93		June 1	6.64
Do.....	....do.....	Lat 35°03'10", long 78°52'17", at Hawley Lane, 0.2 mile above mouth of Fayetteville, Cumberland County.	11.7		June 1 June 24 July 19	6.54 21.0 5.86
Cross Creek..	Cape Fear River.	Lat 35°03'23", long 78°52'16", at Grove St., 0.1 mile below Blounts Creek, at Fayetteville, Cumberland County.	38.6		June 2 June 24	15.3 40.5
Do.....	....do.....	Lat 35°03'18", long 78°51'48", at bridge on U. S. Highway 301, at Fayetteville, Cumberland County, 0.5 mile above mouth.	39.6		May 18 June 15 June 23 July 21	24.1 14.8 35.2 28.9
Buzzard Branch.	Locks Creek..	Lat 35°02'38", long 78°50'58", at Atlantic Coast Line RR., 800 ft above mouth and 1½ miles east of center of Fayetteville, Cumberland County.	.33		May 12 June 2 Aug. 2	a.03 a.05 a.18
Locks Creek..	Cape Fear River.	Lat 35°02'43", long 78°51'20", at Atlantic Coast Line RR., ½ mile above mouth and 1½ miles west of center of Fayetteville, Cumberland County.	41.1		June 2 June 23 July 21 Aug. 2	*7.37 *19.6 39.0 *16.3
Rockfish Creek.	....do.....	Lat 35°00'30", long 79°14'10", at highway bridge, ½ mile above Nicholsons Creek and 1.9 miles northeast of Raeford, Hoke County.	67.5		May 31 June 15	84.3 51.4
Do.....	....do.....	Lat 35°00', long 79°13', 1 mile below Nicholsons Creek and 1 mile north of Raeford, Hoke County.	90.7	1950-54	May 31 June 15 Aug. 3	82.6 48.6 70.7
Pedlars Branch.	Rockfish Creek.	Lat 34°59'05", long 79°12'10", at culvert on East Prospect St., 1 mile northeast of center of Raeford, Hoke County.	-		May 3 June 15 June 22 Aug. 3	2.29 2.16 2.40 2.55
Rockfish Creek.	Cape Fear River.	Lat 34°58'55", long 79°11'44", at bridge on old U. S. Highway 15A, 1.7 miles east of center of Raeford, Hoke County.	95.7		May 18	87.5
Do.....	....do.....	Lat 34°58'11", long 79°06'40", at Aberdeen and Rockfish RR., just below Puppy Creek, 3 miles southwest of town of Rockfish, Hoke County.	145	1945	May 31 June 22 Aug. 3	136 145 141
Jacks Ford Branch.	Beaver Creek.	Lat 35°05'43", long 78°57'53", ½ mile above mouth and 6 miles northwest of Fayetteville, Cumberland County.	.48		June 1 July 12 Aug. 2	.36 .68 .60
Beaver Creek	Cumberland Creek.	Lat 35°05'00", long 78°58'10", at highway bridge, 1½ miles above Stewarts Creek, 1.8 miles above Aberdeen and Rockfish RR. and 6 miles northwest of Fayetteville, Cumberland County.	10.6		June 1 July 21 Aug. 2 Aug. 31	*7.12 10.6 *6.42 9.54
Cumberland Creek.	Little Rockfish Creek.	Lat 35°00'04", long 78°58'44", at highway bridge at Cumberland, Cumberland County, 1 mile above mouth.	31.1		May 31 June 22 July 12 Aug. 2 Aug. 31	23.8 4.91 39.6 18.7 35.8
Little Rockfish Creek.	Rockfish Creek.	Lat 34°59'13", long 78°57'32", at highway bridge, 0.7 mile above Buckhead Creek and 1 mile southeast of Cumberland, Cumberland County.	83.7		May 31 June 27 Aug. 2	71.4 *40.0 *44.4
Harrison Creek.	Cape Fear River.	Lat 34°43'52", long 78°43'00", at highway bridge, 1.3 miles south of Whiteoak, Bladen County, and 1.3 miles above mouth.	44.6		July 20 Sept. 1	*5.68 147
Ellis Creek..	....do.....	Lat 34°41'30", long 78°39'30", at bridge on State Highway 53, 1.3 miles southeast of Ruskin, Bladen County, and 7 miles above mouth.	44.5		July 20 Sept. 1	27.4 97.0
Turnbull Creek.	....do.....	Lat 34°42', long 78°54', at highway bridge, 1½ miles above Jones Lake outlet, 4½ miles northeast of Elizabethtown, Bladen County, and 6 miles from mouth.	65.2	1949-54	July 20 Sept. 15	41.0 150

* Base flow.
a Estimated.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Cape Fear River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Browns Creek.	Cape Fear River.	Lat 34°36'30", long 78°37'27", at bridge on U. S. Highway 701, $\frac{1}{2}$ miles south of Elizabethtown, Bladen County, and $3\frac{1}{2}$ miles above mouth.	14.1		June 3	3.05
Do.....	.....do.....	Lat 34°36'36", long 78°35'27", at highway bridge, 1 mile south of Elizabethtown, Bladen County, and $2\frac{1}{2}$ miles above mouth.	17.3		June 3 July 20 Sept.15	3.32 12.1 18.8
Do.....	.....do.....	Lat 34°36'40", long 78°35'00", at bridge on State Highway 87, 1.7 miles southeast of Elizabethtown, Bladen County and 1.7 miles above mouth.	17.7		June 3	4.09
Hammond Creek	.....do.....	Lat 34°33'57", long 78°33'03", at highway bridge, $2\frac{1}{2}$ miles above Whites Creek and 5 miles southeast of Elizabethtown, Bladen County.	17.1		July 27 Sept.15	*.23 8.15
Whites Creek.	Hammond Creek	Lat 34°32'36", long 78°30'12", at highway bridge, $\frac{1}{2}$ mile above mouth and 8 miles southeast of Elizabethtown, Bladen County.	13.1		July 27 Sept.15	*.99 12.9
Carvers Creek	Cape Fear River.	Lat 34°27'06", long 78°25'36", at highway bridge, 1 mile southwest of Carvers and 3 miles northeast of Council, Bladen County.	9.80		June 2 July 27 Sept.15	*a.2 *.93 12.1
Hood Creek...	.....do.....	Lat 34°17", long 78°08", at bridge on U. S. Highways 74 and 76, 1 mile southeast of Maco, and $4\frac{1}{2}$ miles northeast of Leland, Brunswick County.	22.9	1950-54	July 28 Sept.16	*1.13 *53.0
Great Coharie Creek.	Black River..	Lat 35°01'28", long 78°22'15", at highway bridge, $\frac{1}{2}$ miles above Mill Branch and $3\frac{1}{2}$ miles northwest of Clinton, Sampson County.	136		July 19 July 26	109 *40.6
Mill Branch..	Great Coharie Creek.	Lat 35°00'34", long 78°20'23", at bridge on U. S. Highway 421, 1 mile northwest of center of Clinton, Sampson County, and 2.2 miles above mouth.	7.64		July 19 July 26 Aug. 27	1.98 *.90 10.7
Dollar Branch	Mill Branch..	Lat 34°59'39", long 78°20'00", 1,000 ft above State Highway 24, 0.6 mile southwest of center of Clinton, Sampson County, and 1 mile above mouth.	1.86		July 19 July 26 Sept.27	*.63 *.36 3.76
Mill Branch..	Great Coharie Creek.	Lat 35°00'20", long 78°20'48", below Dollar Branch, $\frac{1}{2}$ miles northwest of Clinton, Sampson County, and 1.8 miles above mouth.	10.2		July 19 July 26	3.64 3.20
Great Coharie Creek.	Black River..	Lat 34°59'36", long 78°22'42", at bridge on State Highway 24, $3\frac{1}{2}$ miles west of Clinton, Sampson County.	158		July 26 Sept.27	*68.8 489
Do.....	.....do.....	Lat 34°50'11", long 78°22'02", at highway bridge 0.2 mile above Little Coharie Creek and 1.7 miles northwest of Ingold, Sampson County.	207		June 16	*37.2
Little Coharie Creek.	Great Coharie Creek.	Lat 35°00'54", long 78°32'15", at highway bridge, 2 miles west of Salemburg, Sampson County.	73.6		July 29 Sept.29	*7.23 144
Do.....	.....do.....	Lat 34°50'06", long 78°22'15", at highway bridge, 0.2 mile above mouth and 1.8 miles northwest of Ingold, Sampson County.	158		June 16	*24.3
Black River..	Cape Fear River.	Lat 34°36'48", long 78°15'12", at highway bridge, $\frac{2}{3}$ mile west of Ivanhoe, Sampson County, and $\frac{1}{2}$ mile below Atlantic Coast Line RR.	736		June 16 July 28	*81.5 393
Do.....	South River..	Lat 35°30'15", long 78°44'00", at bridge 800 ft east of High School in Angier, Harnett County.	1.17		June 6 July 14	*a.03 2.17
Do.....	.....do.....	Lat 35°29'26", long 78°43'30", 1.3 miles southeast of Angier, Harnett County.	2.53		June 6 July 14	*a.04 4.57
do.....	.....do.....	Lat 35°29'16", long 78°42'30", at highway bridge, $\frac{3}{4}$ mile above Popes Lake and 1.6 miles northwest of Barclaysville, Harnett County.	4.30		June 6 July 14	*a.03 21.2
Do.....	.....do.....	Lat 35°18'39", long 78°38'48", at highway bridge, $\frac{1}{2}$ miles below Southern Ry., and 2 miles southeast of Erwin, Harnett County.	43.6		June 6 July 22 Sept.27	0 42.5 55.9

* Base flow.

a Estimated.

DISCHARGE 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 basin during the water year 1955--Continued

Cape Fear River basin, N. C.--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Mingo Swamp..	South River..	Lat 35°17'45", long 78°34'18", at bridge on State Highway 55, 1.2 miles above Stony Run and 2 miles east of Dunn, Harnett County.	33.1		June 6 June 29 Sept. 2 Sept. 27	0.66 1.05 44.1 24.0
Stony Run....	Mingo Swamp..	Lat 35°17'48", long 78°35'08", at bridge on State Highway 55, 1 mile above mouth and 1½ miles east of Dunn, Harnett County.	7.75		June 6 June 29 July 22 Sept. 27	*1.0 *0.06 *1.51 5.25
Mingo Swamp..	South River..	Lat 35°16'10", long 78°35'18", at bridge on U. S. Highway 421, 1 mile below Stony Run and 2.7 miles southeast of Dunn, Harnett County.	50.2		June 6 July 22 Sept. 1 Sept. 27	*.79 *14.2 67.7 52.3
South River..	Black River..	Lat 35°11'33", long 78°38'30", at highway bridge, 0.7 mile southwest of Falcon, Cumberland County, and 1.1 miles above Little Beaverdam Swamp.	143		June 14	*.92
Unnamed tributary.	South River..	Lat 34°56'48", long 78°31'48", at highway bridge, 1.1 miles southwest of Roseboro, Sampson County, and 3½ miles above mouth.	.56		Sept. 29	a.4
Do.....	do.....	Lat 34°55'30", long 78°31'30", at highway bridge, 2 miles southwest of Roseboro, Sampson County, and 2 miles above mouth.	2.99		June 16	.64
South River..	Black River..	Lat 34°38'23", long 78°18'48", at highway bridge, 2 miles southwest of Kerr, Sampson County, and 5½ miles above mouth.	470		June 16	*32.7
Northeast Cape Fear River.	Cape Fear River.	Lat 35°10'37", long 78°02'45", at highway bridge, 1½ miles southeast of Mt. Olive, Wayne County, and 1½ miles above Barlow Branch.	2.73		June 22 Aug. 4 Aug. 31	*a.2 *.07 3.21
Barlow Branch	Northeast Cape Fear River.	Lat 35°11'42", long 78°03'10", at cemetery, ½ mile above mouth and 2 miles east of Mt. Olive, Wayne County.	.70		July 20 Aug. 4 Aug. 31	15.8 .96 2.84
Northeast Cape Fear River.	Cape Fear River.	Lat 35°10'42", long 78°00'04", at highway bridge, ½ mile below Barlow Branch and 3 miles east of Mt. Olive, Wayne County.	10.5		Aug. 4	*1.19
Do.....	do.....	Lat 34°09'18", long 77°57'21", at highway bridge, 4½ miles above Buck Marsh and 6 miles southwest of Seven Springs, Wayne County.	30.5		July 20 Aug. 4	32.0 *8.74
Ready Branch.	Goshen Swamp.	Lat 35°06'15", long 78°07'07", at highway bridge at Faison, Duplin County, 1½ miles above mouth.	3.26		Sept. 29	3.85
Goshen Swamp.	Northeast Cape Fear River.	Lat 35°01'30", long 77°5'13", at bridge on State Highway 11, 1½ miles southwest of Kornegay, Duplin County.	180	1949	Sept. 29	275
Rockfish Creek.	do.....	Lat 34°43'34", long 78°00'18", at highway bridge at Wallace, Duplin County, 1½ miles above Atlantic Coast Line RR. bridge.	126		Aug. 3	*11.2
Do.....	do.....	Lat 34°43'07", long 77°58'30", 200 ft above Little Rockfish Creek, 1½ miles south of Tin City, Duplin County.	152		Aug. 3	*11.5
Little Rockfish Creek.	Rockfish Creek.	Lat 34°43'22", long 77°58'57", 200 ft above mouth, 1.3 miles southeast of Wallace, Duplin County, and 1.4 miles south of Tin City.	11.2		Aug. 3	*.36
Burgaw Creek.	Northeast Cape Fear River.	Lat 34°33'53", long 77°55'22", at bridge on U. S. Highway 117, 0.8 mile northeast of Burgaw, Pender County, and 7 miles above mouth.	8.77		Aug. 3	.60

Pee Dee River basin

Yadkin River.	Pee Dee River	Lat 36°00'30", long 81°30'30", just below mouth of Buffalo Creek, ½ mile below bridge on State Highway 268, and 4 miles northeast of Patterson, Caldwell County, N. C.	72.4	1954	Sept. 22	*23.9
Kings Creek..	Yadkin River.	Lat 36°02'20", long 81°24'50", at highway bridge, 0.1 mile west of Grandin, Caldwell County, N. C.	28.2		Oct. 12	*8.46

* Base flow.
a Estimated.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Pee Dee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Elk Creek....	Yadkin River.	Lat 36°04'20", long 81°24'15", at bridge on State Highway 268 at Elkville, Wilkes County, N. C., 0.4 mile above mouth.	50	1941, 1949-54	Oct. 13	*10.4
Stony Creek..	....do.....	Lat 36°06'50", long 81°21'00", at highway bridge 1 mile above mouth and 1½ miles north of Ferguson, Wilkes County, N. C.	35.1	1954	Sept. 9	*20.5
South Prong Lewis Fork.	Lewis Fork...	Lat 36°09'10", long 81°18'20", at bridge, ½ mile above North Prong and 0.6 mile east of Champion, Wilkes County, N. C.	31.2	1954	July 28	*21.2
North Prong Lewis Fork.	....do.....	Lat 36°09'20", long 81°18'10", at highway bridge, ½ mile above South Prong and 1.0 mile east of Champion, Wilkes County, N. C.	33.6	1954	July 28	*21.9
Lewis Fork...	Yadkin River.	Lat 36°09'10", long 81°18'10", at highway bridge just below North and South Prongs, 0.7 mile east of Champion, Wilkes County, N. C.	65.4		Sept. 9	*38.4
Fishtrap Creek.	....do.....	Lat 36°09'40", long 81°14'50", at highway bridge, 1.4 miles west of Buck, Wilkes County, N. C. and 2 miles above mouth.	7.92		Oct. 10	*2.29
Moravian Creek.	....do.....	Lat 36°08'40", long 81°10'20", at bridge on State Highway 268 west of Wilkesboro, Wilkes County, N. C., at city limits.	26.8		Oct. 10	*8.64
Middle Fork Reddies River.	Reddies River	Lat 36°15'50", long 81°17'55", at highway bridge, 1 mile east of Wilbar, Wilkes County, N. C. and 2½ miles above mouth.	13.9	1949-54	Oct. 12	*4.51
Mulberry Creek.	Yadkin River.	Lat 36°13'30", long 81°08'40", at highway bridge 1.7 miles north-east of Fairplains, Wilkes County, N. C.	31.8		Oct. 10 July 28	*12.8 *24.0
Do.....	....do.....	Lat 36°12', long 81°07', 300 ft above bridge on State Highway 268 at North Wilkesboro city limits, Wilkes County, N. C. and ½ miles above mouth.	43.0	1952-54	Sept. 9	*23.6
Fishing Creek	....do.....	Lat 36°10'10", long 81°05'30", at highway bridge, 2.9 miles east of North Wilkesboro, Wilkes County, N. C.	7.52		Oct. 10	*2.85
Roaring River	....do.....	Lat 36°15'20", long 81°02'30", at highway bridge, 3½ miles north-west of Roaring River, Wilkes County, N. C., 4 miles above mouth.	122	1947	Oct. 13	*25.4
Do.....	....do.....	Lat 36°13', long 81°01', 0.4 mile above State Highway 268, at Roaring River, Wilkes County, N. C., and 0.6 mile above mouth.	136	1904, 1922, 1925, 1948-49, 1952-53	July 28	*62.1
Bugaboo Creek	....do.....	Lat 36°13'20", long 80°57'20", at highway bridge on State Highway 268, ½ mile above mouth, and 1 mile west of Rhonda, Wilkes County, N. C.	-	1954	Sept. 9	*8.35
Mitchell River.	....do.....	Lat 36°25'10", long 80°52'00", at highway bridge, 1¼ miles below North Fork, and 3 miles north of Mountain Park, Surry County, N. C.	32.8	1951-54	Oct. 11	*11.6
Do.....	....do.....	Lat 36°19'00", long 80°48'40", at highway bridge, 3½ miles above mouth, and 4½ miles northeast of Elkin, Surry County, N. C.	80.4	1952-54	Oct. 12 Sept. 12	*23.3 *40.5
Little Creek.	Snow Creek...	Lat 36°21'50", long 80°48'20", at highway bridge, 0.7 mile east of Zephyr, Surry County, N. C.	1.29		Oct. 11	a.2
Snow Creek...	Mitchell River.	Lat 36°18'00", long 80°46'10", at highway bridge, 1.9 miles north of Burch, Surry County, N. C.	16.0	1925	Oct. 11	*2.79
Fisher River.	Yadkin River.	Lat 36°27'00", long 80°49'10", at highway bridge, ½ mile north-east of Blevins Store, Surry County, N. C.	31.2		Oct. 11	*10.9
Cody Creek...	Fisher River.	Lat 36°20'20", long 80°41'10", at bridge on State Highway 268, 3.8 miles west of Level Cross, Surry County, N. C.	10.7		Oct. 12	*1.74
Yadkin River.	Pee Dee River	Lat 36°16'40", long 80°33'10", at highway bridge at Siloam, Surry County, N. C., 75 ft above Hagan Creek and 1.2 miles above Ararat River.	1,230	1952-53	Oct. 8	*254
Hagan Creek..	Yadkin River.	Lat 36°16'40", long 80°33'20", at highway bridge, 0.5 mile north of Siloam, Surry County, N. C.	8.64		Oct. 12	*1.56
Ararat River.	....do.....	Lat 36°30'00", long 80°35'40", at bridge on State Highway 103 at Mount Airy, Surry County, N. C., 2.3 miles above Lovells Creek.	66.6	1947, 1952-54	Oct. 11 Sept. 13	*11.9 *20.3

* Base flow.
a Estimated.

DISCHARGE 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 basin during the water year 1955--Continued

Pee Dee River basin--Continued						
Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Lovells Creek	Ararat River.	Lat 36°29'10", long 80°36'40", at bridge on U. S. Highway 601, 0.1 mile south of Mt. Airy, Surry County, N. C.	28.7		Oct. 11	*10.9
Paul's Creek.	Stewarts Creek.	Lat 36°30'40", long 80°40'00", at highway bridge, 200 ft above mouth and 3 miles west of Mt. Airy, Surry County, N. C.	32.8		Oct. 11	*10.2
Stewarts Creek.	Ararat River.	Lat 36°27'45", long 80°37'30", at bridge on U. S. Highway 601, 2 miles above mouth and 3 miles southwest of Mt. Airy, Surry County, N. C.	89.2	1949-54	Oct. 11	*21.3
Rutledge Creek.	....do.....	Lat 36°28'10", long 80°33'50", at bridge on U. S. Highway 52, 4 miles southeast of Mt. Airy, Surry County, N. C.	7.22		Oct. 11	*1.40
Flat Shoals Creek.	....do.....	Lat 36°25'10", long 80°32'10", at highway bridge, 1.5 miles northeast of Ararat, Surry County, N. C.	7.33		Oct. 11	*1.17
Toms Creek...	....do.....	Lat 36°23'50", long 80°29'20", at bridge on U. S. Highway 52, 0.7 mile northwest of Pilot Mountain, Surry County, N. C.	29.9	1952-54	Oct. 11 Sept. 13	*3.71 *8.61
Little Yadkin River.	Yadkin River.	Lat 36°15'25", long 80°27'10", at highway bridge, 1.2 miles above mouth and 1.3 miles northwest of Donaha, Forsyth County, N. C.	59.7	1941-42	Oct. 7	*3.71
Deep Creek...	....do.....	Lat 36°06'20", long 80°34'40", at highway bridge, 1 mile south of Shacktown, 1 mile above Harman Creek, and 4.8 miles southeast of Yadkinville, Yadkin County, N. C.	65.9	1952-54	Oct. 9 Sept. 17	*6.79 *9.55
Mill Creek...	Muddy Creek..	Lat 36°09'02", long 80°18'43", at highway bridge 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		Oct. 13	*1.22
Little Creek.	....do.....	Lat 36°02'19", long 80°21'46", at highway bridge, 0.9 mile above mouth and 1.9 miles northeast of Clemmons, Forsyth County, N. C.	6.78		Oct. 13	*.32
Muddy Creek..	Yadkin River.	Lat 36°01'20", long 80°21'16", at bridge on U. S. Highway 158, 1½ miles east of Clemmons, Forsyth County, and 2 miles above Salem Creek.	111	1949-54	Oct. 6 Oct. 9 Oct. 13	*9.30 *8.66 *8.44
Kerners Mill Creek.	Middle Fork Muddy Creek	Lat 36°07'00", long 80°08'45", at highway bridge, 0.9 mile above Salem Lake and 4 miles west of Kernersville, Forsyth County, N. C.	8.50		Oct. 13	*1.04
South Fork Muddy Creek	Muddy Creek..	Lat 36°00'40", long 80°16'20", at bridge on State Highway 150, 5 miles south of Winston-Salem, Forsyth County, N. C.	38.5		Oct. 6	*6.14
Do.....	....do.....	Lat 36°00'22", long 80°18'07", at highway bridge, on Evebert Road, 1½ miles below Leak Creek, and 4½ miles east of railroad station at Clemmons, Forsyth County, N. C.	42.2		Oct. 13	5.38
Reedy Creek..	Yadkin River.	Lat 35°54'30", long 80°21'50", at highway bridge, 1½ miles above mouth and 1.6 miles west of town of Reedy Creek, Davidson County, N. C.	21.1		Oct. 12	*.77
South Yadkin River.	....do.....	Lat 35°53'10", long 80°56'50", at bridge on State Highway 115, 1½ miles north of Statesville, Iredell County, N. C.	77.0		Oct. 2 Sept. 9	*26.5 *12.9
Snow Creek...	South Yadkin River.	Lat 35°54'10", long 80°56'50", at bridge on State Highway 115, 4.8 miles northeast of Scotts, Iredell County, N. C.	28.6		Oct. 10	*4.72
Fifth Creek..	....do.....	Lat 35°51', long 80°44', at highway bridge, 1.1 miles west of Cool Springs, Iredell County, N. C. and 1½ miles above mouth.	27.0	1953-54	Oct. 4 Sept. 12	*3.46 *4.80
Fourth Creek.	....do.....	Lat 35°50'40", long 80°55'20", at bridge on State Highway 115, 3½ miles north of Statesville, Iredell County, N. C.	9.19		Oct. 10	*1.87
Bear Creek...	....do.....	Lat 35°52', long 80°35', at highway bridge, 1 mile southwest of Mocksville, Davie County, N. C.	23.3	1952-54	Oct. 4 Sept. 12	a.3 *2.15

* Base flow.
a Estimated.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Pee Dee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Morrison Creek.	Fourth Creek.	Lat 35°49'20", long 80°55'20", at bridge on State Highway 115, 2 miles northwest of Statesville, Iredell County, N. C.	5.87		Oct. 10	*1.51
Second Creek.	South Yadkin River.	Lat 35°43'00", long 80°35'45", at bridge on U. S. Highway 70, 2.7 miles east of Barber, Rowan County, N. C.	119	1949-54	Oct. 4	*10.6
Grants Creek.	Yadkin River.	Lat 35°40'00", long 80°30'30", at bridge on State Highway 150, 2 miles west of Salisbury, Rowan County, N. C.	38.8	1949-54	Oct. 4	*2.74
Swearing Creek.	....do.....	Lat 35°45'19", long 80°18'22", at highway bridge, 0.6 mile east of Linwood, Davidson County, N. C. and 2 miles above mouth.	34.9	1948-54	Oct. 4	*1.38
Second Creek.	....do.....	Lat 35°33'50", long 80°22'00", at highway bridge, 2.1 miles southwest of Liberty, Rowan County, N. C.	32.6		Oct. 2 Sept. 9	*.85 *3.95
Abbotts Creek	....do.....	Lat 35°57'21", long 80°07'33", at bridge on State Highway 109, 4 miles south of Wallburg, Davidson County, N. C.	33.3	1949-50, 1952-54	Oct. 13	*1.98
Brushy Fork..	Abbotts Creek	Lat 35°55'30", long 80°10'48", at highway bridge, 2 miles above mouth and 4.3 miles northeast of Welcome, Davidson County, N. C.	24.2		Oct. 13	*1.10
Abbotts Creek	Yadkin River.	Lat 35°54'05", long 80°11'20", just above Thomasville, N. C. water supply intake, 400 ft below Brushy Fork Creek and 5½ miles west of Thomasville, Davidson County, N. C.	65.9	1950-54	Oct. 6	*2.42
Rich Fork Creek.	....do.....	Lat 35°51'15", long 80°10'57", at bridge on former U. S. Highways 29 and 70, 1½ miles above Handy Creek, 2½ miles north of Holly Grove, and 4½ miles northeast of Lexington, Davidson County, N. C.	47.3	1948, 1952-53	Oct. 12	*.96
Unnamed tributary.	Leonard Creek	Lat 35°52'00", long 80°13'40", at highway bridge, 3 miles northeast of intersection of U. S. Highways 52 and 29 in Lexington, Davidson County, N. C., 3.4 miles southeast of Welcome.	-		Oct. 12	*.07
Rich Fork....	Abbotts Creek	Lat 35°51'15", long 80°10'57", at highway bridge, 1 mile south of U. S. Highways 70 and 29 and 3 miles east of Lexington, Davidson County, N. C.	47.3	1952-54	Sept. 13	*6.85
Flat Swamp Creek.	Yadkin River.	Lat 35°41'11", long 86°09'06", at highway bridge, 3.3 miles southeast of Silver Hill, Davidson County, N. C. and 2½ miles above Fourmile Branch.	-		Oct. 12	0
Fourmile Creek.	Flat Swamp Creek.	Lat 35°40'51", long 80°10'29", at highway bridge, 1½ miles above mouth and 2½ miles southeast of Silver Hill, Davidson County, N. C.	-		Oct. 12	0
Lick River...	Yadkin River.	Lat 35°36'59", long 80°10'33", at highway bridge, 0.1 mile east of Healing Springs, Davidson County, N. C. and 3 miles above mouth.	26.5		Oct. 2 Oct. 12 Sept. 9	*.59 0 *1.54
Cabin Creek..	....do.....	Lat 35°34'06", long 80°10'46", at highway bridge, 1½ miles above mouth and 4½ miles west of Jacksons Hill, Davidson County, N. C.	-		Oct. 12	0
Caraway Creek	Uwharrie River.	Lat 35°45'00", long 79°56'00", at highway bridge, ½ mile above Little Caraway Creek and 3.6 miles south of Flint Hill, Randolph County, N. C.	27.6		Oct. 7	*a.08
Little Caraway Creek.	Caraway Creek	Lat 35°46'40", long 79°57'10", at highway bridge, 2 miles above mouth and 2½ miles southwest of Flint Hill, Randolph County, N. C.	-		Oct. 7	0
Caraway Creek	Uwharrie River.	Lat 35°43'50", long 79°56'30", at bridge on U. S. Highway 64, 5.2 miles south of Flint Hill, Randolph County, N. C.	38.8		Oct. 7	.1
....do.....	....do.....	Lat 35°40'20", long 79°57'10", at bridge on State Highway 49, 1 mile above Taylors Creek and 1.9 miles northeast of Farmer, Randolph County, N. C.	79.3		Oct. 7	.10

* Base flow.
a Estimated.

DISCHARGE 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 basin during the water year 1955--Continued

Pee Dee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Little Mountain Creek.	Mountain Creek.	Lat 35°22'10", long 80°06'30", at highway bridge, 1 mile above mouth and 5½ miles northeast of center of Albemarle, Stanly County, N. C.	9.27		Oct. 13	*1.00
West Branch Rocky River	Rocky River..	Lat 35°28'16", long 80°47'31", at highway bridge, 1½ miles above mouth and 3.8 miles east of Cornelius, Mecklenburg, County, N. C.	-		Oct. 14	*.77
Clarke Creek.	....do.....	Lat 35°24'50", long 80°45'08", at Wallace Crossroads, at highway bridge, 2½ miles above mouth and 5 miles east of Huntersville, Mecklenburg County, N. C.	21.8	1952-54	Oct. 13	*.74
Rocky River..	Pee Dee River	Lat 35°21'33", long 80°40'31", at bridge on U. S. Highway 29, 2 miles upstream from Mallard Creek and 6½ miles southwest of Concord, Cabarrus County, N. C.	87.9	1952-54	Oct. 13	*4.23
Mallard Creek	Rocky River..	Lat 35°19'10", long 80°43'55", at highway bridge, ¼ mile below Toby Creek and 9 miles northeast of intersection of State Highways 16 and 49 in Charlotte, Mecklenburg County, N. C.	26.4	1954	Oct. 14	*.09
Do.....	....do.....	Lat 35°20'01", long 80°40'06", at highway bridge, ¼ mile above mouth and 1.3 miles northwest of Harrisburg, Cabarrus County, N. C.	41.2		Oct. 4 Sept. 9	.16 *3.37
Coddle Creek.	....do.....	Lat 35°24'29", long 80°40'29", at highway bridge just below Afton Run, 5 miles west of Concord, Cabarrus County, N. C.	56.6	1949-54	Oct. 13	*4.36
Reedy Creek..	....do.....	Lat 35°19'10", long 81°35'40", at highway bridge, 0.3 mile southeast of Rocky River, Cabarrus County, N. C. and 0.4 mile above Caldwell Creek.	30.8		Oct. 4 Oct. 13 Sept. 9	*.39 *.66 *3.88
Caldwell Creek.	Reedy Creek..	Lat 35°16'00", long 81°35'30", at highway bridge, 2.6 miles south of Rocky River, Cabarrus County, N. C.	-		Oct. 4	0
Rocky River..	Pee Dee River	Lat 35°19'27", long 81°33'40", at highway bridge, 1½ miles above Irish Buffalo Creek and 2½ miles northeast of Town of Rocky River, Cabarrus County, N. C.	276	1952-54	Oct. 13	*9.20
Island Creek.	Rocky River..	Lat 35°15'40", long 80°24'10", at bridge on State Highway 27, 1.3 miles east of Locust, Stanly County, N. C.	-		Oct. 12	0
Town Creek...	Long Creek...	Lat 35°22'00", long 80°12'00", at bridge in Albemarle, Stanly County, N. C., 2 miles above mouth.	21.3		Oct. 13	.28
Stony Run....	Big Bear Creek.	Lat 35°16'55", long 80°20'40", at bridge, 1.3 miles northeast of Red Cross, Stanly County, N. C.	-		Oct. 4	0
Thompson Creek.	Pee Dee River	Lat 34°40', long 79°56', at bridge on county road, ½ mile below Seaboard Air Line RR. bridge and 4 miles southwest of Cheraw, S. C.	266	1948, 1950-54	May 24	*36.7
Cedar Creek..	....do.....	Lat 34°31', long 79°51', at bridge on U. S. Highway 52, at Society Hill, S. C.	55	1949-54	May 26	*32.9
Pee Dee River	Atlantic Ocean.	Lat 34°32', long 79°50', at bridge on U. S. Highway 15, 1 mile below Cedar Creek and 1½ miles northeast of Society Hill, S. C.	7,980	1950-54	May 26	4,560
Do.....	....do.....	Lat 33°54'15", long 79°26'10", at bridge on U. S. Highway 378, 1.9 miles northeast of Kingsburg, S. C., and 7.4 miles above Lynches River.	-		Oct. 13	899
Lynches River	Pee Dee River	Lat 34°28', long 80°19', at bridge on U. S. Highway 1, 1.9 miles northeast of Bethune, S. C., and 2½ miles downstream from Cedar Creek.	380	1953-54	May 4 June 23	*59.1 96.3
Little Lynches River.	Lynches River	Lat 34°24', long 80°23', at bridge on U. S. Highway 1, 2½ miles southwest of Bethune, S. C., and 3 miles above Bell Branch.	163	1951-54	May 4 June 23	*45.2 65.4

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Pee Dee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Black River..	Pee Dee River	Lat 33°49', long 80°06', at bridge on U. S. Highway 301 at Gable, S. C., $\frac{1}{2}$ mile below Tearcoat Branch.	-		Oct. 26	0

Santee River basin

Mill Creek...	Catawba River	Lat 35°38'10", long 82°11'10", at highway bridge, 1 mile west of Old Fort, McDowell County, N. C. and 1 mile above mouth.	20.9		Oct. 10	*3.02
Crooked Creek	.....do.....	Lat 35°38'50", long 82°06'40", at highway bridge, 0.2 mile above mouth and 4.2 miles northeast of Old Fort, McDowell County, N. C.	35.0		Oct. 10	*11.5
Mackey Creek.	.....do.....	Lat 35°40'10", long 82°06'20", at bridge on U. S. Highway 70, 5 miles east of Old Fort, McDowell County, N. C.	8.40		Oct. 10	*3.54
Buck Creek...	.....do.....	Lat 35°43'40", long 82°05'20", at bridge on State Highway 80, 1.1 miles above Lake Tahoma, McDowell County, N. C.	15.2		Oct. 9	*4.24
Little Buck Creek.	Buck Creek...	Lat 35°43'50", long 82°04'50", at highway bridge, 0.2 mile above mouth and $\frac{2}{3}$ miles northwest of Garden City, McDowell County, N. C.	6.24		Oct. 9	*1.32
Nicks Creek...	Catawba River	Lat 35°41'10", long 82°02'50", at highway bridge, 0.3 mile above mouth and 2.1 miles west of Marion, McDowell County, N. C.	5.30		Oct. 10	*2.6
Tom Creek....	.....do.....	Lat 35°44'20", long 82°03'00", at highway bridge, 4.5 miles northwest of Marion, McDowell County, N. C.	2.00		Oct. 9	*3.36
Paddy Creek...	.....do.....	Lat 35°45'50", long 81°54'20", at bridge on State Highway 105, 4.3 miles northwest of Bridgewater, Burke County, N. C. and $\frac{1}{2}$ miles above mouth.	5.46		Oct. 9	*5.57
Muddy Creek...	.....do.....	Lat 35°42'50", long 81°51'30", at bridge on U. S. Highways 64 and 70, $\frac{1}{2}$ mile above mouth and $\frac{1}{2}$ mile south of Bridgewater, Burke County, N. C.	97.3	1949-54	Oct. 9	*40.0
Canoe Creek...	.....do.....	Lat 35°45'40", long 81°46'00", at highway bridge 1.3 miles southwest of Oak Hill, Burke County, N. C.	12.1		Oct. 9	*3.42
Silver Creek.	.....do.....	Lat 35°42'00", long 81°45'50", at highway bridge, just above Clear Creek, $\frac{2}{3}$ miles southeast of Lion Alpine, Burke County, N. C.	25.9	1949-54	Oct. 9	*9.46
Bailey Fork...	Silver Creek.	Lat 35°43'10", long 81°43'30", at highway bridge, 0.6 mile above mouth and 1.7 miles southwest of Morganton, Burke County, N. C.	7.54		Oct. 10	*3.24
Silver Creek	Catawba River	Lat 35°44'10", long 81°42'50", at bridge on U. S. Highway 70, 1 mile west of Morganton, Burke County, N. C.	62.2		Oct. 11	*20.3
Warrior Fork.	.....do.....	Lat 35°47'50", long 81°43'00", at highway bridge, 2.7 miles northeast of Oak Hill and 4 miles northwest of Morganton, Burke County, N. C.	104	1954	Sept. 9	*31.3
Hunting Creek	.....do.....	Lat 35°45'10", long 81°39'30", at bridge on U. S. Highways 64 and 70, 0.6 miles east of Morganton, Burke County, N. C.	21.8		Oct. 11	*10.4
Johns River...	.....do.....	Lat 35°55'30", long 81°40'20", at highway bridge, at Collettsville, Caldwell County, N. C., $\frac{1}{2}$ mile above Mulberry Creek.	69	1949-54	Oct. 9 Sept. 22	*9.36 *22.8
Mulberry Creek.	Johns River	Lat 35°55'40", long 81°39'30", at highway bridge 0.9 mile northeast of Collettsville, Caldwell County, N. C. and 1 mile above mouth.	39.5		Oct. 13	*6.17
Wilson Creek.	.....do.....	Lat 35°55'10", long 81°44'00", at old gaging station site 2.5 miles northwest of Adako, Caldwell County, N. C.	66	1954	Sept. 22	*39.0
Do	.....do.....	Lat 35°53'50", long 81°42'50", at highway bridge below Brown Mountain Beach, $\frac{1}{2}$ mile west of Adako, Caldwell County, N. C.	69.7		Oct. 13	*16.5

* Base flow.

DISCHARGE 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 basin during the water year 1955--Continued

Santee River basin--Continued						
Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Lower Creek..	Catawba River	Lat 35°54'30", long 81°31'30", at bridge on U. S. Highway 321, at Lenoir, Caldwell County, N. C., 0.2 mile above Cane Creek.	13.8	1949-54	Oct. 9 Sept. 22	*0.25 *2.28
Cane Creek...	Lower Creek..	Lat 35°55'00", long 81°31'30", at bridge on U. S. Highway 321, 1 mile east of Lenoir, Caldwell County, N. C.	13.2		Oct. 12	a.3
Husband Creek	.....do.....	Lat 35°52'50", long 81°37'00", at highway bridge, 1.2 miles west of Gamewell, Caldwell County, N. C.	5.77		Oct. 13	*1.31
White Mill Creek.	.....do.....	Lat 35°49'30", long 81°39'10", at bridge on State Highway 18, $\frac{1}{2}$ mile above mouth, and 1 mile northeast of Chesterfield, Burke County, N. C.	7.84		Oct. 9	*2.16
Gunpowder Creek.	Catawba River	Lat 35°51'20", long 81°29'10", at highway bridge, 0.9 mile north-east of Hudson, Caldwell County, N. C.	11.2		Oct. 13	*2.71
Little Gunpowder Creek.	Gunpowder Creek.	Lat 35°50'10", long 81°28'40", at bridge on U. S. Highway 321, 0.2 mile below Chicago and Northwestern Ry., and 1.3 miles northwest of Saw Mills, Caldwell County, N. C.	5.23		Oct. 13	*1.09
Middle Little River.	Catawba River	Lat 35°50'10", long 81°17'00", at highway bridge, 1 $\frac{1}{2}$ miles above mouth and 6.3 miles southwest of Taylorsville, Alexander County, N. C.	46.3		Oct. 5 Sept. 9	*7.22 *8.72
Lyle Creek...	.....do.....	Lat 35°42'40", long 81°04'50", at bridge on State Highway 10 at Catawba, Catawba County, N. C., 1 mile above mouth.	70.7	1946-54	Oct. 5	*12.3
Davidson Creek.	.....do.....	Lat 35°29'22", long 80°56'04", at bridge on State Highway 73, 0.7 mile above mouth and $\frac{1}{2}$ miles west of Cornelius, Mecklenburg County, N. C.	37.6	1949-54	Oct. 10 Oct. 4 Sept. 21	*c2.52 *1.27 *2.19
McDowell's Creek.	.....do.....	Lat 35°23'22", long 80°55'16", at highway bridge, $\frac{2}{3}$ mile above mouth and 5 miles southwest of Huntersville, Mecklenburg County, N. C.	10.1		Oct. 14	*.54
Dutchmans Creek.	.....do.....	Lat 35°22'00", long 81°01'55", at highway bridge, 1.2 miles below Killian and Leepers Creeks and 3 miles east of Stanley, Gaston County, N. C.	112	1949-54	Oct. 4 Sept. 21	*3.51 *7.78
Laurel Creek.	Henry Fork...	Lat 35°40'30", long 81°32'40", at highway bridge, 0.3 mile above mouth and 3.7 miles northeast of Pleasant Grove, Burke County, N. C.	9.39		Oct. 9	*3.25
Jacob Fork...	South Fork Catawba River.	Lat 35°38'20", long 81°19'30", at highway bridge, 0.7 mile above mouth and 3 miles west of Star-town, Catawba County, N. C.	100	1947, 1949-54	Oct. 5 Sept. 21	*30.3 *24.4
Clark Creek...	.....do.....	Lat 35°28'30", long 81°18'05", at bridge on North Grove Street in Lincolnton, Lincoln County, N. C., and $\frac{1}{2}$ mile above mouth.	92.2	1947, 1949-54	Oct. 5 Sept. 21	*12.0 *10.8
Lick Fork....	Indian Creek.	Lat 35°24'15", long 81°22'55", at highway bridge, 1 mile above mouth and 1.8 miles north of Cherryville, Gaston County, N. C.	2.90		Oct. 14	*.44
Beaverdam Creek.	South Fork Catawba River.	Lat 35°23'55", long 81°16'00", at highway bridge, 2.2 miles above mouth and 2.7 miles southeast of Crouse, Lincoln County, N. C.	21.2		Oct. 14	*1.74
Hoyles Creek.	.....do.....	Lat 35°20'05", long 81°08'00", at highway bridge, 0.3 mile above mouth and 2.7 miles northeast of Dallas, Gaston County, N. C.	27.8		Oct. 14	*.47
Little Long Creek.	Long Creek...	Lat 35°19'15", long 81°09'52", at bridge on State Highway 275, 0.9 mile north of Dallas, Gaston County, N. C. and $\frac{2}{3}$ miles above mouth.	6.87		Oct. 14	*.18
Catawba Creek	Catawba River	Lat 35°11'40", long 81°04'52", at highway bridge, 2.8 miles southwest of Cramerton, Gaston County, N. C.	23.2		Oct. 14	*3.26
Abernathy Creek.	Crowders Creek.	Lat 35°15'15", long 81°16'15", at culvert on U. S. Highways 29 and 74, and 5 miles west of Gastonia, Gaston County, N. C.	7.18		Oct. 14	*.95

* Base flow.

a Estimated.

c Made in water year 1953, not previously published.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Santee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
South Fork Crowders Creek.	Crowders Creek.	Lat 35°09'43", long 81°13'05", at highway bridge, 4.6 miles southwest of Boogertown, Gaston County, N. C.	27.6		Oct. 14	*1.32
Crowders Creek.	Catawba River	Lat 35°10'09", long 81°11'44", at bridge on U. S. Highway 321, $\frac{1}{2}$ mile below South Fork Crowders Creek, and 6 miles south of Gastonia, Gaston County, N. C.	70.1	1949-54	Oct. 6 Oct. 14 Sept. 21	*4.01 *4.46 *5.45
Knob Creek...	Broad River..	Lat 35°25'20", long 82°04'30", at bridge on U. S. Highways 74 and 64, 7.7 miles northwest of Rutherfordton, Rutherford County, N. C.	4.22		Oct. 12	*1.98
Mountain Creek.	....do.....	Lat 35°20'40", long 82°00'40", at bridge on State Highway 108, 3 miles southwest of Rutherfordton, Rutherford County, N. C.	40.6	1949-54	Oct. 12	*13.5
Cleghorn Creek.	....do.....	Lat 35°18'50", long 81°58'50", at highway bridge, 1.4 miles above mouth and 3.5 miles south of Rutherfordton, Rutherford County, N. C.	13.2		Oct. 12	*5.26
Walnut Creek.	Green River..	Lat 35°22'20", long 82°07'50", at highway bridge, 1.5 miles south of Rock Springs, Polk County, N. C.	12.3		Oct. 12	*3.87
Whiteoak Creek.	....do.....	Lat 35°16'10", long 82°02'50", at highway bridge, 0.8 mile southwest of Cox Store, Polk County, N. C.	37.1		Oct. 5 Oct. 12 Sept. 22	*13.5 *12.6 19.6
McKinney Creek.	Broad River..	Lat 35°12'00", long 81°53'50", at highway bridge, 3.5 miles south of Harris, Rutherford County, N. C.	7.38		Oct. 13	*2.84
Richland Creek.	....do.....	Lat 35°14'00", long 81°52'40", at highway bridge, 0.4 mile south of Harris, Rutherford County, N. C.	8.47		Oct. 13	*1.85
Floyds Creek.	....do.....	Lat 35°13'00", long 81°51'00", at highway bridge, 1.3 miles above mouth, and 2 miles southeast of Harris, Rutherford County, N. C.	27.6		Oct. 5 Sept. 22	*5.95 *6.84
Camp Creek...	Second Broad River.	Lat 35°27'50", long 81°54'30", at highway bridge, 1 mile above Little Camp Creek, 1.1 miles northwest of Westminster, Rutherford County, N. C.	6.52		Oct. 11	*2.42
Cane Creek...	....do.....	Lat 35°26'50", long 81°53'00", at highway bridge, 0.6 mile southeast of Westminster, Rutherford County, N. C. and $\frac{1}{2}$ mile above mouth.	24.8		Oct. 11	*4.75
Catheys Creek	Second Broad River.	Lat 35°27'30", long 81°58'40", at bridge on U. S. Highway 221, $\frac{1}{2}$ mile above Southern Ry., and 2 miles south of Union Mills, Rutherford County, N. C.	15.0		Oct. 11	*4.08
Do.....	....do.....	Lat 35°24'00", long 81°55'40", at bridge on U. S. Highway 64, 2 miles northeast of Rutherfordton, Rutherford County, N. C.	29.4		Oct. 11	*7.61
Robinson Creek.	....do.....	Lat 35°22'10", long 81°50'50", at highway bridge, 0.4 mile above mouth and 0.8 mile west of Bostic, Rutherford County, N. C.	27.1		Oct. 13	*6.73
Second Broad River.	Broad River..	Lat 35°21'20", long 81°51'00", at highway bridge, 1 mile southwest of Bostic, Rutherford County, N. C., and 2 miles north of Forest City.	170	1951-54	Oct. 5 Sept. 22	*42.9 *44.9
Puzzle Creek.	Second Broad River.	Lat 35°21'20", long 81°49'10", at highway bridge 0.3 mile below Seaboard Air Line RR., and 0.5 mile east of Bostic, Rutherford County, N. C.	9.14		Oct. 13	*2.14
Webbs Creek..	....do.....	Lat 35°18'50", long 81°48'00", at highway bridge, 1 mile above mouth and 3 miles southeast of Forest City, Rutherford County, N. C.	9.30		Oct. 13	*2.11
Hills Creek..	....do.....	Lat 35°15'00", long 81°46'30", at highway bridge just above mouth, 1 mile north of Cliffside, Rutherford County, N. C.	7.13		Oct. 13	*1.97
North Fork Sally Queen Creek.	First Broad River.	Lat 35°31'30", long 81°46'40", at highway bridge $\frac{1}{2}$ mile above mouth, and 6.2 miles northeast of Sunshine, Rutherford County, N. C.	12.8		Oct. 13	*4.25

* Base flow.

DISCHARGE 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 basin during the water year 1955--Continued

Santee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
First Broad River.	Broad River..	Lat 35°29'35", long 81°40'53", at highway bridge, 2 miles above Duncans and Wards Creeks, and 5½ miles southwest of Casar, Cleveland County, N. C.	63.2	1949-54	Oct. 5 Sept. 21	*15.2 *14.5
Wards Creek..	First Broad River.	Lat 35°29'55", long 81°38'45", at highway bridge, 2.0 miles southwest of Casar, Cleveland County, N. C., and 2½ miles above mouth.	14.4		Oct. 14	*4.57
Duncans Creek	....do.....	Lat 35°27'45", long 81°40'20", at bridge on State Highway 26, ½ mile above mouth and 3.4 miles north of Polkville, Cleveland County, N. C.	19.7		Oct. 13	*4.63
Hinton Creek.	....do.....	Lat 35°25'56", long 81°44'01", at highway bridge, 0.2 mile south of Hollis, Rutherford County, N. C.	5.08		Oct. 13	*1.56
Grassy Branch	....do.....	Lat 35°25'52", long 81°35'22", at highway bridge, 0.8 mile above mouth and 1.3 miles northwest of Lawndale, Cleveland County, N. C.	4.41		Oct. 14	*1.18
Crooked Run Creek.	....do.....	Lat 35°26'39", long 81°34'35", at highway bridge, 0.4 mile above mouth and 2.0 miles north of Lawndale, Cleveland County, N. C.	6.84		Oct. 14	*1.73
Knob Creek...	....do.....	Lat 35°26'53", long 81°34'10", at highway bridge, 2.5 miles above mouth and 2.4 miles north of Lawndale, Cleveland County, N. C.	33.3		Oct. 14	*8.64
Maple Creek..	....do.....	Lat 35°25'35", long 81°35'55", at highway bridge, ½ mile above mouth and 2 miles northeast of Lawndale, Cleveland County, N. C.	7.51		Oct. 14	*1.45
Big Harris Creek.	....do.....	Lat 35°24'08", long 81°34'20", at highway bridge, 0.4 mile south of Lawndale, Cleveland County, N. C. and 2 miles above Little Harris Creek.	5.48		Oct. 14	*1.68
Brushy Creek.	....do.....	Lat 35°18'08", long 81°34'45" at bridge on U. S. Highway 74, 0.4 mile below Seaboard Air Line RR., and 0.7 mile west of Shelby, Cleveland County, N. C.	27.5		Oct. 14	*5.00
Buffalo Creek	Broad River..	Lat 35°20'55", long 81°28'45", at highway bridge, 2½ miles southwest of Waco, Cleveland County, N. C., and 5 miles north of Shelby.	43.5	1949-54	Oct. 5 Sept. 21	*3.22 3.79
Potts Creek..	Buffalo Creek	Lat 35°16'03", long 81°25'25", at highway bridge, ½ mile south of Oak Grove, Cleveland County, N. C., and ½ mile above Perstman Creek.	-		Oct. 14	2.02
Beaverdam Creek.	Crowders Creek.	Lat 35°06'50", long 81°07'30" just below unnamed tributary, 0.6 mile below Camp Run and 5.3 miles east of Clover, S. C.	18		June 1	*5.65
Allison Creek	Catawba River	Lat 35°03'50", long 81°09'08", at bridge on State road, 1.8 miles below Grist Branch and 5.4 miles southeast of Clover, S. C.	27		June 1	*9
McAlpine Creek.	Sugar Creek.	Lat 35°03'43", long 80°52'48", at bridge on U. S. Highway 521, 1 mile below McMillen Creek and 2 miles south of Bennettsville, Mecklenburg County, N. C.	91.7	1949-54	Oct. 6	0
Twelvenile Creek.	Catawba River	Lat 34°57'00", long 80°45'20", at bridge on State Highway 14, 0.1 mile below West Fork Twelvenile Creek and 2½ miles north of Waxhaw, Union County, N. C.	11.4	1949-54	Oct. 6	0
Wateree River	Santee River.	Lat 35°56'55", long 80°27'40", at bridge on U. S. Highway 75, 400 ft below Colonels Creek and 6.1 miles northeast of Eartover, S. C.	5,540	1971-84	Mar 14, 1972	
Buffalo Creek	Broad River..	Lat 35°08', long 81°35', at bridge on State Highway 5, 1½ miles above mouth and 2 miles west of Blacksburg, S. C.	175	1947, 1949-54	Oct. 4 June 1	*14.3 *87.8
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	Oct. 19	*1.69

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Santee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Kings Creek..	Broad River..	Lat 35°04', long 81°27', at bridge on State Highway 5 at Kings Creek, S. C., $\frac{3}{4}$ miles below Jumping Branch.	47.6	1947, 1949-52, 1954	Oct. 4	*2.28
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	Oct. 19	*6.77
North Pacolet Creek.	Pacolet River	Lat 35°12'55", long 82°10'50", at highway bridge, 1 mile below Horse Creek and 3 miles east of Tyrone, Polk County, N. C.	45.6	1949-53	Oct. 12	*16.1
South Pacolet River.	....do.....	Lat 35°06', long 82°01', at Mary Foster Bridge, 1 mile above Richland Creek and $\frac{2}{3}$ miles South of Fingerville, S. C.	-	1947	Oct. 11 Oct. 20 Sept. 2 Sept. 22 Sept. 23	*20.1 *21.5 46.9 *21.8 *20.4
Buck Creek...	....do.....	Lat 35°06', long 81°53', at bridge on State road, 1 mile above mouth and $\frac{1}{4}$ miles northwest of Mayo, S. C.	30	1950-52	Oct. 20	*9.70
Island Creek.	....do.....	Lat 35°04', long 81°51', at bridge on State road, $\frac{1}{2}$ miles above mouth and $\frac{1}{2}$ miles southeast of Mayo, S. C.	14	1951-52	Oct. 20	*1.41
Lawson Fork Creek.	....do.....	Lat 34°57'35", long 81°54'40", at bridge on State road at Spartanburg, S. C., 0.1 mile below Chinquepin Creek.	70	1952, 1954	Oct. 4	*13.0
South Tyger River.	Tyger River..	Lat 34°58'40", long 82°14'40", at bridge on State Highway 14, 0.8 mile below Clear Creek and 2.8 miles north of Greer, S. C.	-	1954	Oct. 5 Oct. 20 Nov. 16 Jan. 7	*9.69 *15.4 37.1 *50.2
Maple Creek..	South Tyger River.	Lat 34°55'55", long 82°10'00", at bridge on State road, 0.7 mile above mouth and 1.3 miles west of Duncan, S. C.	-	1951	June 9 June 21 June 29	8.95 11.7 *7.67
South Tyger River.	Tyger River..	Lat 34°55', long 82°08', at bridge on State road at Duncan, S. C., $\frac{1}{2}$ miles below Maple Creek.	-		June 9 June 21 June 28	64.1 181 *24.9
Tyger River..	Broad River..	Lat 34°32', long 81°33', at bridge on State Highway 72, 0.3 mile below Fadgets Creek and $\frac{1}{2}$ mile southeast of Delta, S. C.	759	1903-04, 1950-54	June 15	*357
Mountain Creek.	Enoree River.	Lat 34°55'25", long 82°18'35", at bridge on county road, at Taylors, S. C., 0.6 mile above mouth.	-	1954	Oct. 19	*2.26
Enoree River.	Broad River..	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	Oct. 19	*10.8
Warrior Creek	Enoree River.	Lat 34°37', long 81°59', at bridge on U. S. Highway 221, at Lanford, S. C., $\frac{4}{5}$ miles above mouth.	23	1953-54	Oct. 4	*.37
Smith Branch.	Broad River..	Lat 34°02'15", long 81°03'35", at bridge on Clement Road at Eau Claire, S. C., 0.6 mile above mouth.	-	1954	Oct. 22	1.50
Middle Saluda River.	South Saluda River.	Lat 35°01', long 82°32', at bridge on State Highway 288, $\frac{3}{8}$ mile above mouth and 2 miles west of Marietta, S. C.	48.9	1947, 1949	Oct. 6	*20.6
North Saluda River.	Saluda River.	Lat 35°01', long 82°30', at bridge on U. S. Highway 276, at Marietta, S. C., $\frac{1}{4}$ mile below Greenville and Northern Ry. bridge.	65.4	1900-1901, 1947, 1949	Oct. 6	*24.1
Grove Creek..	....do.....	Lat 34°42', long 82°26', at bridge on State road, 1.5 miles east of Piedmont, S. C., and $\frac{7}{8}$ miles above mouth.	14.6	1949	Oct. 6	*2.41
Reedy River..	....do.....	Lat 34°57'30", long 82°27'30", at bridge on State road, 1 mile southwest of Travelers Rest, S. C., and 8.3 miles above Long Branch.	-	1953	Oct. 6 June 10 June 28	*.72 2.38 *1.80
Unnamed tributary.	Reedy River..	Lat 34°52'50", long 82°25'40", at bridge on Bleachery Road at Greenville, S. C., 0.35 mile above mouth which is $\frac{1}{2}$ miles above Long Branch.	-	1952-53	June 10 June 28	6.70 5.26
Reedy River..	Saluda River.	Lat 34°51'00", long 82°24'35", at Hudson Street Bridge at Greenville, S. C., 0.6 mile below Long Branch.	-	1953	June 10 June 28	16.0 *11.4

* Base flow.

DISCHARGE 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 basin during the water year 1955--Continued

Santee River basin--Continued						
Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
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.	-		Oct. 7	*4.23
Little River.	Saluda River.	Lat 34°13', long 81°46', at bridge on State Highway 34, 1½ miles above Southern Ry. bridge and 3 miles west of Silver-street, S. C.	230	1953-54	Apr. 20 June 20	*155 96.6
Bush River...	.....do.....	Lat 34°16', long 81°40', at bridge on State road, 1 mile above Southern Ry. bridge and 3 miles west of Newberry, S. C.	68	1950	Oct. 7	*1.87
Unnamed trib-utary.	.....do.....	Lat 34°02'30", long 81°11'55", at bridge on county road, 0.6 mile above mouth and 4½ miles north-east of Lexington, S. C.	-		Mar. 6	*.12
Rawls Creek..	.....do.....	Lat 34°03'15", long 81°11'10", at bridge on State road, 1,000 ft below Koon Branch and 2.0 miles south of Irmo, S. C.	-		Mar. 6	*1.13
Saluda River.	Congaree River.	Lat 34°02'40", long 81°10'00", 100 ft below Lorick Branch and 2.8 miles south of Irmo, S. C.	-		Mar. 6	149
Twelvemile Creek.	Saluda River.	Lat 34°01'50", long 81°09'45", at bridge on State road, 0.6 mile above mouth and 3.8 miles south of Irmo, S. C.	-		Mar. 6	9.00
Congaree Creek.	Congaree River.	Lat 34°58'15", long 81°04'40", at bridge on U. S. Highway 21, at Cayce, S. C., 2 miles above Sixmile Creek.	136	1925, 1944, 1949-54.	Oct. 13 May 10 June 17	*106 *73.2 *91.0
Sixmile Creek	.....do.....	Lat 33°56'35", long 81°04'45", at bridge on U. S. Highway 21, at Cayce, S. C., 0.5 mile below Long Branch.	-	1953	Oct. 13	*.33
Gills Creek..	.....do.....	Lat 33°59'30", long 80°59'25", at bridge on State Highway 760, at Columbia, S. C., 0.5 mile below Wildcat Creek.		1937, 1941, 1953-54	Oct. 22	5.55
Do.....	.....do.....	Lat 33°56'50", long 80°59'20", at bridge on State Highway 48, 1.1 miles below Southern Ry. bridge, near Columbia, S. C.	65.7	1949-54	May 10	12.3
Savany Hunt Creek.	.....do.....	Lat 33°51'30", long 81°00'45", at bridge on U. S. Highway 21, 1.7 miles above mouth and 5.9 miles northeast of Gaston, S. C.	-		Oct. 12	*10.2
Sandy Run....	.....do.....	Lat 33°46'00", 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.	-		Oct. 12	*25.4
Big Beaver Creek.	.....do.....	Lat 33°44'10", long 80°57'30", at bridge on U. S. Highway 21, 0.1 mile below Rock Branch and 11.6 miles northwest of St. Matthews, S. C.	-		Oct. 12	*5.62
Little River.	Santee River.	Lat 33°29', long 80°11', just below Lake Marion Dam, 9½ miles northwest of Pineville, S. C.		1944-54	Nov. 4 Mar. 31 June 30	18.1 19.6 21.7
Crawl Creek..	.....do.....	Lat 33°26', long 80°00', at bridge on State road, at Pineville, S. C.	-		Oct. 13	*.45
Edisto River basin						
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, S. C.	396	1950-54	May 12	*221
Bull Swamp Creek.	North Fork Edisto River.	Lat 33°44'50", long 81°07'10", at bridge on county road at Swanses, 1.1 miles above Fourth Creek.	-		Oct. 12	*4.90
Caw Caw Swamp.	.....do.....	Lat 33°31'20", long 80°53'05", at bridge on U. S. Highway 178, 1½ miles above mouth and 2½ miles northwest of Orangeburg.	-		Oct. 12	*13.4
Savannah River basin						
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, S. C.	85		Oct. 8 Mar. 16 May 25	*28.8 99.2 173
Big Eastatoe Creek.	Keowee River.	Lat 34°56', long 82°54', at bridge on State road, 1½ miles above mouth and 3 miles northwest of Nine Times, S. C.	-		Oct. 8	*15.4

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Savannah River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Rice Creek...	Twelvemile Creek.	Lat 34°52', long 82°39', at Soil Conservation Service Dam No. 12, 4½ miles east of Pickens, S. C.	0.72		Jan. 14 Apr. 8 Aug. 31	0.44 1.01 *1.13
Do.....	.....do.....	Lat 34°49', long 82°44', at bridge on county road, 1.1 miles above mouth and 3 miles northwest of Liberty, S. C.	-	1954	Jan. 14 Apr. 8 Aug. 30	14.3 25.4 *6.49
Golden Creek.	.....do.....	Lat 34°48', long 82°44', at bridge on U. S. Highway 178, 0.4 miles below Town Creek and 2½ miles above mouth.	-	1953-54	Jan. 14 Apr. 8 Aug. 29	9.84 20.0 2.47
Seneca River.	Savannah River.	Lat 34°41'05", long 82°51'10", at bridge on U. S. Highway 123, at Clemson, S. C., 0.9 mile below Twelvemile Creek.	640	1952-54	Mar. 16	874
Six and Twenty Creek.	Deep Creek...	Lat 34°34'10", long 82°41'15", at bridge on U. S. Highway 178, 0.4 mile below Town Creek and 4.8 miles northwest of Anderson, S. C.	42.7	1947-48	Oct. 12	*5.93
Lightwood Log Creek.	Tugaloo River	Lat 34°22', long 82°57', at bridge on State Highway 77, 1½ miles west of Hartwell, Ga.	13.9	1948,1953	Oct. 15	*2.67
Flat Shoals Creek.	Lightwood Log Creek.	Lat 34°23', long 82°57', at bridge on county road, 1½ miles northwest of Hartwell, Ga.	7.19	1953	Oct. 15	*1.93
Coldwater Creek.	Savannah River.	Lat 34°15', long 82°56', at bridge on county road, 5½ miles northeast of Bowman, Ga.	12.6	1953	Oct. 15	*2.15
Boyd's Creek..	Little Coldwater Creek	Lat 34°18', long 82°57', at bridge on State Highway 172, 4 miles south of Hartwell, Ga.	.32	1948,1953	Oct. 15	.73
Coldwater Creek.	Savannah River.	Lat 34°13', long 82°48', at bridge on State Highway 52, 8 miles northwest of Elberton, Ga.	67.5	1943,1953	Oct. 19 Sept.29	*9.13 *16.3
Van Creek....	.....do.....	Lat 34°09', long 82°44', at bridge on county road, 2½ miles east of Ruckersville, Ga.	-		Sept.29	*1.36
Rocky River..	.....do.....	Lat 34°31', long 82°36', 100 ft above waterworks intake and 2.7 miles northeast of Anderson, S. C.	32.8	1947-50	Oct. 7	*4.35
Bailey Creek.	Rocky River..	Lat 34°31', long 82°37', at county highway bridge, 2 miles northeast of Anderson, S. C.	4.3	1947-48	Oct. 7	*.59
Broadway Creek.	.....do.....	Lat 34°30', long 82°36', at bridge on State road, 4 miles east of Anderson, S. C., and 4½ miles above mouth.	26	1949	Oct. 7	*3.12
Morea Creek..	South Beaverdam Creek.	Lat 34°17', long 83°04', at bridge on State Highway 9, 3 miles east of Royston, Ga.	10.0	1953	Oct. 15	*.58
Beaverdam Creek.	Savannah River.	Lat 34°06', long 82°45', at bridge near northeast city limit in Middleton, Ga.	10.7	1951,1953	Sept.29	*16.4
North Fork Broad River.	Broad River..	Lat 34°34', long 83°22', at Soil Conservation Service dam site No. 1, 1½ miles southwest of Toccoa, Ga.	-		Apr. 18	*4.71
Denman's Creek.	North Fork Broad River.	Lat 34°33', long 83°22', at Soil Conservation Service dam site No. 2, 2½ miles southwest of Toccoa, Ga.	.96		Oct. 12 Apr. 8	*.41 *.87
North Fork Broad River.	Broad River..	Lat 34°31', long 83°22', at bridge on State Highway 13, 3 miles southwest of Toccoa, Ga.	7.71	1953	Oct. 12	*3.37
Carnes Creek.	North Fork Broad River.	Lat 34°33', long 83°20', at Soil Conservation Service dam site No. 3, 2 miles southeast of Toccoa, Ga.	1.33		Oct. 12	*.84
Unnamed tributary.	.....do.....	Lat 34°32', long 83°18', at Soil Conservation Service dam site No. 4, 4 miles southeast of Toccoa, Ga.	3.98		Oct. 12	*1.19
North Fork Broad River.	.....do.....	Lat 34°30', long 83°18', at bridge on county road, 5½ miles south of Toccoa, Ga.	24.7		Oct. 12	*9.00
Bear Creek...	North Fork Broad River.	Lat 34°28', long 83°18', at Soil Conservation Service dam site No. 6, 6 miles southwest of Avalon, Ga.	3.66		Oct. 12 Sept. 2	*1.44 *1.81
North Fork Broad River	Broad River..	Lat 34°28', long 83°14', at bridge on county road, 5½ miles west of Martin, Ga.	34.7		Oct. 14	*12.1
Unnamed tributary.	North Fork Broad River	Lat 34°28', long 83°15', at Soil Conservation Service dam site No. 5, 4 miles southwest of Martin, Ga.	1.88		Oct. 14 Apr. 13	*.85 2.14

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Savannah River basin--Continued						
Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Toms Creek...	North Fork Broad River	Lat 34°30', long 83°16', at Soil Conservation Service dam site No. 11, 3½ miles west of Avalon, Ga.	3.79		Oct. 14 Apr. 13	*1.66 3.49
Unnamed tributary.	Toms Creek...	Lat 34°29', long 83°14', at Soil Conservation Service dam site No. 13, 2½ miles west of Martin, Ga.	1.42		Oct. 14	*.46
North Fork Broad River	Broad River..	Lat 34°27', long 83°17', at bridge on county road, 2½ miles southwest of Martin, Ga.	56.3		Oct. 13	*14.5
Do.....	.....do.....	Lat 34°24', long 83°11', at bridge on State Highway 59, 5 miles south of Martin, Ga.	61.6		Oct. 13	17.9
Middle Fork Broad River	.....do.....	Lat 34°27', long 83°28', at bridge on county road, 4 miles southeast of Baldwin, Ga.	-		Sept. 23	*5.88
Little Nails Creek.	Middle Fork Broad River	Lat 34°25', long 83°31', at bridge on county road, 1½ miles south of Hollingsworth, Ga.	8.98	1943, 1953	Oct. 20 Sept. 27	6.59 *5.79
Middle Fork Broad River	Broad River..	Lat 34°27', long 83°26', at bridge on county road, 4½ miles east of Hollingsworth, Ga.	45.8		Oct. 20 Sept. 23	*14.3 *8.47
Hudson River.	.....do.....	Lat 34°20', long 83°29', at bridge on State Highway 41, at Homer, Ga.	46.2	1943, 1951, 1953	Oct. 20 Sept. 23	*17.0 *8.62
Webb Creek...	Hudson River.	Lat 34°21', long 83°29', at bridge on State Highway 51, 1½ miles northeast of Homer, Ga.	12.9	1953	Oct. 20 Sept. 23	*3.42 *2.66
Hudson River.	Broad River..	Lat 34°17', long 83°24', at bridge on State Highway 59, 5 miles southeast of Homer, Ga.	46.2		Sept. 26	*20.5
Grove Creek..	.....do.....	Lat 34°22', long 83°37', at bridge on county road, 2½ miles southeast of Bellton, Ga.	-		Sept. 27	*1.36
Do.....	.....do.....	Lat 34°18', long 83°36', at bridge on county road, 6 miles west of Homer, Ga.	20.7		Oct. 20 Sept. 27	*4.98 *4.26
Hickory Level Creek.	Grove Creek..	Lat 34°17', long 83°32', at bridge on State Highway 98, 3½ miles southwest of Homer, Ga.	11.3	1943, 1953	Oct. 20 Sept. 27	*3.62 *3.15
Grove Creek..	Hudson River.	Lat 34°16', long 83°23', at bridge on county road, 7½ miles southeast of Homer, Ga.	-		Sept. 26	*12.8
Little Blue-stone Creek	Bluestone Creek.	Lat 34°10', long 83°11', at bridge on State Highway 191, 4 miles northeast of Danielsville, Ga.	7.85	1953	Oct. 15	*1.29
Broad River..	Savannah River.	Lat 34°04', long 83°00', at bridge on State Highway 72, 2½ miles northeast of Carlton, Ga.	760	1942, 1953, 1954	Feb. 16 Apr. 1 May 11 Sept. 9	*728 *573 *341 *154
South Fork Broad River	Broad River..	Lat 34°10', long 83°18', at bridge on State Highway 106, at Ila, Ga.	17.0	1953	Oct. 11	*.80
Do.....	.....do.....	Lat 34°06', long 83°12', at bridge on county road, 2½ miles southeast of Danielsville, Ga.	44.2	1943, 1953	Oct. 11	*3.21
Do.....	.....do.....	Lat 34°03', long 83°10', at bridge on State Highway 72, 2 miles west of Comer, Ga.	88.6	1951, 1953	Oct. 11	*6.84
Big Clouds Creek.	.....do.....	Lat 34°02', long 83°04', at bridge on county road, 2½ miles southwest of Carlton, Ga.	47.3	1943, 1953	Oct. 5	*1.02
Fork Creek...	South Fork Broad River	Lat 34°03', long 83°01', at bridge on State Highway 72, at Carlton, Ga.	20.2	1951, 1953	Oct. 11	*.65
Little Dove Creek.	Dove Creek...	Lat 34°04', long 82°58', at bridge on State Highway 36, at Oglesby, Ga.	4.26	1943, 1951, 1953	Oct. 18 Sept. 30	*.72 *1.15
Dove Creek...	Broad River..	Lat 34°04', long 82°58', at bridge on State Highway 36, at Oglesby, Ga.	16	1951	Oct. 18 Sept. 30	*.73 *1.20
Falling Creek	.....do.....	Lat 34°00', long 82°49', at bridge on county road, 1½ miles southwest of Fortsonia, Ga.	43.6	1943, 1953	Oct. 18 Sept. 30	*.96 *1.62
Long Creek...	.....do.....	Lat 33°50', long 83°04', at bridge on State Highway 10, 3½ miles southeast of Lexington, Ga.	30.9	1943, 1953	Oct. 5	*1.53
Clark Creek..	Long Creek..	Lat 33°54', long 82°49', at bridge on county road, 4½ miles northwest of Tignall, Ga.	42.6	1943, 1953	Oct. 7	0
Chickasaw Creek.	Broad River..	Lat 33°56', long 82°46', at bridge on State Highway 17, 4½ miles north of Tignall, Ga.	5.33	1953	Oct. 7	*.10
Rock Creek...	Middle Creek.	Lat 33°46', long 82°45', at bridge on State Highway 17, 2½ miles north of Washington, Ga.	6.43	1953	Oct. 7	*.04
Soap Creek...	Savannah River.	Lat 33°50', long 82°29', at bridge on State Highway 72, 3 miles north of Lincolnton, Ga.	32.6	1943	Oct. 7	0

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Savannah River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Blue Barker Creek.	Barker Creek.	Lat 34°22', long 82°26', at bridge on State Highway 252, 2 miles above mouth and 2½ miles west of Honea Path, S. C.	-		Oct. 7	0
Calhoun Creek.	Little River.	Lat 34°05'00", long 82°28'35", at bridge on State road, 2.6 miles above White Creek and 8.6 miles southwest of Abbeville, S. C.	-		Oct. 12	0
Long Cane Creek.	.....do.....	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, S. C.	68.6	1949-54	Oct. 21	2.34
North Fork Little River.	.....do.....	Lat 33°35', long 82°55', at bridge on State Highway 22, ½ mile north of Crawfordville, Ga.	66.1	1943, 1953	Oct. 6	0
South Fork Little River.	.....do.....	Lat 33°37', long 82°55', at bridge on State Highway 22, 4½ miles north of Crawfordville, Ga.	45.7	1951, 1953	Oct. 6	0
Kettle Creek.	.....do.....	Lat 33°41', long 82°50', at bridge on State Highway 44, 6½ miles southwest of Washington, Ga.	47.2	1943, 1953	Oct. 7	0
Harden Creek.	.....do.....	Lat 33°33', long 82°50', at bridge on State Highway 47, ½ mile east of Crawfordville, Ga.	4.49	1953	Oct. 6	*.04
Do.....	.....do.....	Lat 33°37', long 82°46', at bridge on State Highway 47, 0.8 mile southwest of Picklin, Ga.	24.2	1943, 1953	Oct. 5	0
Rocky Creek..	.....do.....	Lat 33°39', long 82°38', at bridge on county road, 1½ miles southwest of Aonia, Ga.	30.1	1943, 1953	Oct. 7	0
Hart Creek...	Big Creek....	Lat 33°34', long 82°36', at bridge on State Highway 80, 1½ mile northwest of Wrightsboro, Ga.	17.5	1943, 1951, 1953	Oct. 12	0
Mattox Creek.	.....do.....	Lat 33°30', long 82°32', at bridge on State Highway 223, 2½ miles northwest of Thompson, Ga.	10.5	1953	Oct. 12	0
Lloyd Creek..	Little River.	Lat 33°42', long 82°29', at bridge on State Highway 43, 6½ miles south of Lincoln, Ga.	14.1		Oct. 7	0
Kiokee Creek.	Savannah River.	Lat 33°32', long 82°19', at bridge on State Highway 47, 0.2 miles south of Appling, Ga.	43.9	1953	Oct. 4	*.85
Greenbrier Creek.	Kiokee Creek.	Lat 33°34', long 82°19', at bridge on State Highway 47, 2½ miles north of Appling, Ga.	33.3	1943, 1951, 1953	Oct. 4	0
Kiokee Creek.	Savannah River.	Lat 33°36', long 82°14', at bridge on State Highway 104, 7½ miles northwest of Evans, Ga.	106	1953	Oct. 4	*.01
Little Kiokee Creek.	.....do.....	Lat 33°32', long 82°15', at bridge on State Highway 232, 4 miles southeast of Appling, Ga.	13.6	1953	Oct. 4	*.089
Do.....	.....do.....	Lat 33°35', long 82°13', at bridge on State Highway 104, 6 miles northwest of Evans, Ga.	26.6		Oct. 4	0
Uchee Creek..	.....do.....	Lat 33°28', long 82°14', at bridge on Wrightsboro Road, 2½ miles northwest of Grovetown, Ga.	24.2	1943, 1944	Oct. 4	0
Do.....	.....do.....	Lat 33°34', long 82°11', at bridge on State Highway 104, 4 miles northwest of Evans, Ga.	58.3	1953	Oct. 4	0
Reed Creek...	.....do.....	Lat 33°31', long 82°07', at bridge on State Highway 104, 1½ miles southeast of Evans, Ga.	5.81	1953	Oct. 4	*.25
Raes Creek...	.....do.....	Lat 33°30', long 82°02', 1 mile above State Highway 26 bridge at Augusta, Ga.	16.1	1953	Oct. 5	*.06
Rocky Creek..	Cason Dead River.	Lat 33°26', long 82°02', at bridge on State Highway 4 at Augusta, Ga.	10.5	1953	Oct. 5	*2.14
Butler Creek.	.....do.....	Lat 33°25', long 82°06', at county road above Lombards Mill Pond, 8 miles southwest of Augusta, Ga.	13.5	1953	Oct. 5	*.62
Do.....	.....do.....	Lat 33°23', long 82°02', at bridge on State Highway 21, 6 miles south of Augusta, Ga.	29.4	1951, 1953	Oct. 6	*9.34
Spirit Creek.	Savannah River.	Lat 33°22', long 82°08', at bridge on State Highway 4, 11 miles southwest of Augusta, Ga.	18.0	1953	Oct. 5	*12.9
Do.....	.....do.....	Lat 33°21', long 82°05', at Windscr Spring Road, 2½ miles northeast of Hepzibah, Ga.	50.3	1943	Oct. 5	*33.7
Do.....	.....do.....	Lat 33°19', long 81°57', at bridge on State Highway 56, 5½ miles north of McBean, Ga.	71.1	1953	Oct. 5	*31.2
Little Spirit Creek.	Spirit Creek.	Lat 33°19', long 81°57', at bridge on State Highway 56, 5 miles north of McBean, Ga.	28.3	1953	Oct. 5	*5.51
McBean Creek.	Savannah River.	Lat 33°14', long 82°03', at bridge on State Highway 21, 5½ miles west of McBean, Ga.	41.4	1944, 1953	Oct. 6	*19.5
Do.....	.....do.....	Lat 33°14', long 82°57', at bridge on State Highway 56, at McBean, Ga.	70.0	1951, 1953, 1954	Oct. 4	*41.1

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River basin during the water year 1955--Continued

Savannah River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Brier Creek..	Savannah River.	Lat 33°25', long 82°36', at bridge on State Highway 12, 4 miles east of Warrenton, Ga.	9.4	1953	Oct. 14	0
Do.....	.....do.....	Lat 33°22', long 82°28', at bridge on State Highway 17, 4½ miles southwest of Bonesville, Ga.	55	1943, 1944, 1953	Oct. 14	*.01
Sweetwater Creek.	Brier Creek..	Lat 33°26', long 82°27', at bridge on State Highway 10, 0.8 mile northwest of Bonesville, Ga.	7.46	1953	Oct. 14	*.15
Little Brier Creek.	.....do.....	Lat 33°20', long 82°28', at bridge on State Highway 17, 6½ miles southwest of Dearing, Ga.	24	1951, 1953	Oct. 14	*1.06
Brier Creek..	Savannah River.	Lat 33°17', long 82°18', at bridge on State Highway 4, 5½ miles east of Blythe, Ga.	171	1943, 1953, 1954	Oct. 5	*20.8
Sandy Run....	Brier Creek..	Lat 33°18', long 82°15', at bridge on State Highway 4, 3 miles east of Blythe, Ga.	33.2	1943, 1953	Oct. 6	*11.1
Brushy Creek.	.....do.....	Lat 33°14', long 82°27', at bridge on State Highway 16, 2 miles northeast of Stapleton, Ga.	1.38	1953, 1954	Oct. 6	0
Do.....	.....do.....	Lat 33°12', long 82°24', at bridge on State Highway 4, 0.8 mile southwest of Wrens, Ga.	9.40	1943, 1944, 1951, 1953, 1954	Oct. 6	*1.56
Do.....	.....do.....	Lat 33°11', long 82°16', at bridge on Middle Ground Road, 3½ miles southeast of Matthews, Ga.	40.7	1944, 1953, 1954	Oct. 5	*10.6
Brier Creek..	Savannah River.	Lat 33°07', long 81°58', at bridge on State Highway 56, 3½ miles northeast of Waynesboro, Ga.	473	1944, 1951, 1953, 1954	Oct. 4	*10.7
McIntosh Creek.	Brier Creek..	Lat 33°05', long 82°01', at bridge on State Highway 21, 0.7 miles southwest of Waynesboro, Ga.	6.80	1953, 1954	Oct. 5	*.50

* Base flow.

The following table contains determinations of peak discharges 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 during water year October 1954 to September 1955

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Cowpasture River.	James River..	Lat 36°19'30", long 79°26'14", at bridge on U. S. Highway 250, 1.6 miles west of Head waters, Va.	11	1949	Oct. 15	900
Meadow Creek.	Craig Creek..	Lat 37°27'56", long 80°12'14", at bridge on State Highway 624, 6 miles southwest of Newcastle, Va.	3.7		Oct. 15	107
Looney Mill Creek.	James River..	Lat 37°29'48", long 79°45'27", at bridge on State Highway 636, 5 miles southwest of Buchanan, Va.	29.6	1950	Oct. 15	6,990
St. Marys River.	South River..	Lat 37°55'48", long 79°09'52", at bridge on State Highway 608, 2.5 miles northeast of Vesuvius, Va.	15.7		Aug. 18	2,770
Schenks Branch.	Meadow Creek.	Lat 38°02'30", long 78°28'30", at bridge on Rugby Avenue, at Charlottesville, Va.	1.3	1950	Oct. 15	355
Little Willis River.	Willis River.	Lat 37°25', long 78°28', at culvert on U. S. Highway 15, 0.4 mile southwest of Curdsville, Va.	7.1		Aug. 18	563
Falling Creek	James River..	Lat 37°27'15", long 77°35'20", at bridge on State Highway 653, 4 miles southeast of Midlothian, Va.	20		Aug. 18	812
North Branch Appomattox River.	Appomattox River.	Lat 37°23', long 78°47', at bridge on State Highway 24, 3 miles northeast of Appomattox, Va.	5.8		Aug. 18	535
Unnamed tributary.	Glebe Creek..	Lat 37°22'05", long 77°04'15", at culvert on State Highway 155, 2 miles north of Charles City, Va.	.7	1948	Aug. 13	286
Collins Run..	Chickahominy River.	Lat 37°23'55", long 77°03'00", at culvert on State Highway 155, 2½ miles south of Providence Forge, Va.	2.5	1948	Aug. 13	1,350
Rowanty Creek	Nottoway River.	Lat 36°59'34", long 77°23'32", at bridge on U. S. Highway 301, 3.3 miles north of Stony Creek, Va.	120		Aug. 19	2,790
Nininger Creek.	Otter River..	Lat 37°16'26", long 79°29'31", at bridge on State Highway 43, 4 miles south of Bedford, Va.	4.8	1949	Oct. 15	1,140

Determinations of peak discharge during water year October 1954 to September 1955--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Cutawhiskie Creek.	Poteeasi Creek.	Lat 36°18', long 76°12', at bridge on State Highway 35, $\frac{1}{2}$ mile below small tributary, 2.5 miles south of Woodland, Northampton County, N. C., and 10 miles above mouth.	11.8		Aug. 13	106
Chinkapin Swamp.	Wiccoacon Creek.	Lat 36°12', long 76°47', at culvert on State Highway 350, 1.0 mile west of Colerain, Bertie County, N. C., and $\frac{3}{2}$ miles above Cypress Swamp.	8.89		Aug. 13	55.4
Unnamed tributary.	Vade Mecun Creek.	Lat 36°24', long 80°19', at culvert on State Highway 66, 1.3 miles north of Gap and $2\frac{1}{2}$ miles west of Moores Springs, Stokes County, N. C.	†1		Apr. 14	166
Little Snow Creek.	Snow Creek...	Lat 80°11', long 36°28', at highway bridge 5.0 miles north of Hartman, and 5.0 miles southeast of Lawsonville, Stokes County, N. C.	5.42		Apr. 14	527
Jacobs Creek.	Dan River....	Lat 36°21', long 79°54', at highway bridge 1.8 miles southeast of Intelligence and 7.3 miles southwest of Wentworth, Rockingham County, N. C.	†12		Oct. 15	5,290
Buffalo Creek	....do.....	Lat 36°28', long 79°50', at bridge on State Highway 770, 3.3 miles west of Leaksville, Rockingham County, N. C.	†18		Oct. 15	4,190
South Countryline Creek.	Countryline Creek.	Lat 36°19', long 79°18', at highway bridge, $3\frac{1}{2}$ miles southwest of Hightowers, Caswell County, N. C., and $6\frac{1}{2}$ miles south of Hightowers, N. C.	†7		Oct. 15 July 12	1,170 2,360
Unnamed tributary.	Lower Barton Creek.	Lat 35°55'45", long 78°40'55", at culvert on U. S. Highway 15A, 4.6 miles north of junction with U. S. Highway 70, and 7 miles north of Raleigh, Wake County, N. C.	.63		Sept. 3	165
Do.....	Whiteoak Swamp.	Lat 35°42'30", long 77°47'00", at culvert on secondary road, 0.3 mile west of Holdens Crossroads, 1.7 miles above Whiteoak Swamp and 7 miles east of Wilson, Wilson County, N. C.	2.60		Aug. 17	360
Vine Swamp...	Beaver Creek.	Lat 35°09'20", long 77°33'10", at bridge on State Highway 12, 1.2 miles northeast of Elm Grover, $1\frac{1}{2}$ miles above Jones County line, $\frac{1}{2}$ mile above mouth, and 7 miles south of Kinston, Le-noir County, N. C.	5.64		Sept. 19	784
Whiteoak River.	Atlantic Ocean.	Lat 34°53'30", long 77°14'00", at bridge on U. S. Highway 17, at Jones-Onslow County line, $\frac{1}{2}$ mile above Mirey Branch and 0.8 mile north of Belgrade, Onslow County, N. C.	53.3		Sept. 20	8,870
Unnamed tributary.	Southwest Creek.	Lat 34°47'15", long 77°33'00", at culvert on secondary road, 0.4 mile above Southwest Creek, 2.3 miles south of Catherine Lake, 4.7 miles north of Walters store, and about 10 miles northwest of Jacksonville, Onslow County, N. C.	†1		Sept. 19	282
Rock Creek...	Little Alamance Creek	Lat 36°03', long 79°36', at large arch culvert on U. S. Highway 70A, 1.9 miles west of Whitsett, Guilford County, N. C.	†11		Oct. 15	5,860
Gum Creek....	Alamance Creek.	Lat 36°03', long 79°29', at bridge on State Highway 62, 1 mile north of Alamance, Alamance County, N. C.	5.02		Oct. 15	1,590
Robeson Creek	Haw River....	Lat 79°15', long 35°43', at culvert on abandoned highway 500 ft above U. S. Highway 64, 1.8 miles west of Pittsboro, Chatham County, N. C.	1.13		Oct. 15 Apr. 14	400 58.5
Bear Creek...	Rocky River..	Lat 35°38', long 79°18', at highway bridge 3 miles northeast of Goldston, Chatham County, N. C., $4\frac{1}{2}$ miles below Atlantic and Yadkin Ry., and $6\frac{1}{2}$ miles above mouth.	43.2		Oct. 15	5,400
Sugar Creek..	Pocket Creek.	Lat 35°25', long 79°15', at culvert 1.1 miles above mouth and 2.0 miles southwest of Tramway, Lee County, N. C.	.85		Sept. 3	400
Falls Creek..	Deep Creek...	Lat 35°35', long 79°30', at culvert on State Highway 902, 2.5 miles southeast of Bennett, Chatham County, N. C., and 8.3 miles west of Bear Creek.	3.01		Oct. 15	1,410

† About.

DISCHARGE AT POINTS OTHER THAN GAGING STATIONS

Determinations of peak discharge during water year October 1954 to September 1955--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Unnamed tributary.	Stewarts Creek.	Lat 34°58', long 78°05', at culvert on U. S. Highway 117, $\frac{1}{2}$ mile above mouth and 3 miles southeast of Warsaw, Duplin County, N. C.	†1		Sept. 20	117
Do.....	Northeast Cape Fear River.	Lat 35°11', long 77°58', at culvert on State Highway 55, $1\frac{1}{2}$ miles above mouth and 6 miles northeast of Mt. Olive, Wayne County, N. C.	.8		Sept. 19	94.7
Mathews Creek	....do.....	Lat 35°06', long 77°49', at bridge on State Highway 111, $\frac{1}{2}$ mile above mouth and 1.2 miles south of Albertson, Duplin County, N. C.	9.29		Sept. 19	809
Pike Creek...	....do.....	Lat 34°30'00", long 77°54'10", at culvert on U. S. Highway 117, 4.2 miles south of Burgaw, Pender County, N. C. and $4\frac{1}{2}$ miles above mouth.	.55		Sept. 20	506
Logan Creek..	Forbush Creek	Lat 36°15', long 80°34', at culvert on State Highway 67, 1.0 mile south of Smithtown, Yadkin County, N. C., 7.7 miles east of Booneville.	1.08		Apr. 14	211
Deal Branch..	Yadkin River.	Lat 35°44', long 80°30', at culvert on U. S. Highway 601, 3.7 miles north of Salisbury, Rowan County, N. C.	3.88		Apr. 14	565
(Revised name) Flat Swamp Creek.	....do.....	Lat 35°44', long 80°07', at culvert on old U. S. Highway 117, 0.3 mile west of junction with State Highway 109 at Silver Valley and 9.7 miles southeast of Lexington, Davidson County, N. C.	4.24		Oct. 15	840
North Prong Clarke Creek.	Clark Creek..	Lat 35°25'13", long 80°47'54", at highway bridge 1.0 mile above mouth and $2\frac{1}{2}$ miles east of Huntersville, Mecklenburg County, N. C.	3.61		Apt. 14	405
Mallard Creek	Rocky River..	Lat 35°19'05", long 80°44'15", at bridge on U. S. Highway 29, 3.3 miles south of Cabarrus County line, and 6 miles northeast of Charlotte, Mecklenburg County, N. C.	†21		Apr. 14	3,060
Cheek Creek..	Little River.	Lat 35°13', long 79°51', at bridge on State Highway 731, 1.4 miles east of Pekin, Montgomery County, N. C.	14.6		Oct. 15 Apr. 14	485 986
Beaverdam Creek.	Yadkin River.	Lat 35°32', long 80°05', at culvert on State Highway 109, 1.7 miles northeast of County line and 7.4 miles south of Denton, Davidson County, N. C.	4.46		Oct. 15	318
Unnamed tributary.	Caleb Branch.	Lat 35°39', long 81°55', at culvert on State Highway 26, 0.9 mile upstream from mouth, 3.4 miles northeast of Glenwood, and 5.8 miles southeast of Marion, McDowell County, N. C.	†1		Oct. 14	48.8
North Fork Broad River	Broad River..	Lat 34°31', long 83°22', at bridge on State Highway 13, 3 miles southwest of Toccoa, Ga.	7.71		Feb. 6	d442
Do.....	....do.....	Lat 34°28', long 83°14', at bridge on county road, $5\frac{1}{2}$ miles west of Martin, Ga.	37.4		Feb. 7	e744

† About.

d Gage height of measurement, 11.79 ft, stage falling, crest gage height 12.03 ft (Feb. 6).

e Gage height of measurement, 9.18 ft, stage falling, crest gage height 10.58 ft (Feb. 6).

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