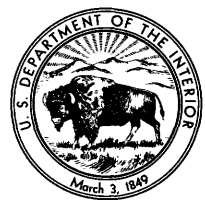
Surface Water Supply of the United States 1956

Part 3-B. Cumberland and Tennessee River Basins

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

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1436

Prepared in cooperation with the States of Alabama, Kentucky, North Carolina, Tennessee, and Virginia, and with other agencies



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PREFACE

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

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

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E. B. Rice	Raleigh, N. C.
F. F. Schrader	Louisville, Ky.
D. S. Wallace	Charlottesville, Va.
M. R. Williams	Montgomery, Ala.

CALENDAR FOR WATER YEAR 1956

OCTOBER 1955

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

NOVEMBER 1955

S	M	T	W	T	F	S
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27	28	29	30			

DECEMBER 1955

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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
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JANUARY 1956

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FEBRUARY 1956

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MARCH 1956

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APRIL 1956

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29	30					

MAY 1956

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JUNE 1956

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JULY 1956

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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST 1956

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			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER 1956

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

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SURFACE WATER SUPPLY OF CUMBERLAND AND TENNESSEE RIVER BASINS, 1956

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, 1956. Since 1898, when the United States Geological Survey first studied streamflow in relation to problems of irrigation, similar measurements have been made at more than 13,500 gaging stations in the 48 States and at many others in the Territories of Alaska and Hawaii. On September 30, 1956, the Geological Survey and cooperating organizations were maintaining 6,910 gaging stations, including those in Alaska and Hawaii. Discharge measurements only were made at many other points in the 1956 water year. The name of each stream measured at points other than gaging stations is not listed in the index to 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:

Alabama: State Geological Survey, W. B. Jones, State geologist.

Kentucky: Department of Economic Development, J. H. Taylor, director, succeeded by G. W. Hubley, Jr.

North Carolina: State Department of Conservation and Development, B. E. Douglas, director, succeeded by W. P. Saunders; city of Asheville, Weldon Weir, city manager; city of Waynesville, W. H. Way, mayor.

Tennessee: State Department of Conservation, J. N. McCord, commissioner, through Division of Geology, W. D. Hardeman, director; State Department of Public Health, R. H. Hutcheson, commissioner, through Stream Pollution Control, S. L. Jones, director; city of Knoxville, Department of Public Service, R. I. Gentry, director; city of Murfreesboro, Water Department, J. W. Lovell, superintendent.

Virginia: State Department of Conservation and Development, R. V. Long, director; State Department of Highways, J. A. Anderson, commissioner.

Under a cooperative agreement covering the Tennessee River basin and the Caney Fork basin above Great Falls Dam, the Tennessee Valley Authority furnished financial assistance for the operation of 98 gaging stations, of which 6 were in Alabama, 4 in Georgia, 1 in Kentucky, 23 in North Carolina, 45 in Tennessee, and 19 in Virginia.

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 13 gaging stations in Kentucky and 19 in Tennessee.

Assistance was also furnished by the Arnold Engineering Development Center, Department of the Air Force, Atomic Energy Commission, and the Weather Bureau, United States Department of Commerce.

The following organizations aided in collecting records:

North Carolina: Town of Highlands, American Enka Corp., Carolina Power & Light Co., Champion Paper & Fibre Co., Ecusta Paper Corp., and the Mead Corp., Sylva Division.

Tennessee: Aluminum Co. of America and the Tennessee Copper Co.

Virginia: American Cyanamid 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.

State	District office	Address
Alabama	Montgomery	513 New Post Office Building.
Kentucky a/	Louisville	830 West Broadway.
North Carolina b/	Raleigh	Federal Building.
Tennessee c/	Chattanooga	823 Edney Building.
Virginia	Charlottesville	Natural Resources Building, University of Virginia.

a/ Except for the Tennessee River near Paducah.
b/ Including stations in the Tennessee River basin in Georgia except those in the Toccoa River basin.
c/ Including stations in the Toccoa River basin in Georgia and Tennessee River near Paducah, Ky., Tennessee River at Florence and at Whitesburg, Ala., Bear Creek at Bishop, Ala., and Paint Rock River near Woodville, Ala.

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

DEFINITION OF TERMS AND ABBREVIATIONS

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

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

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

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

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

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

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

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

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

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

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

DOWNSTREAM ORDER OF LISTING GAGING STATIONS

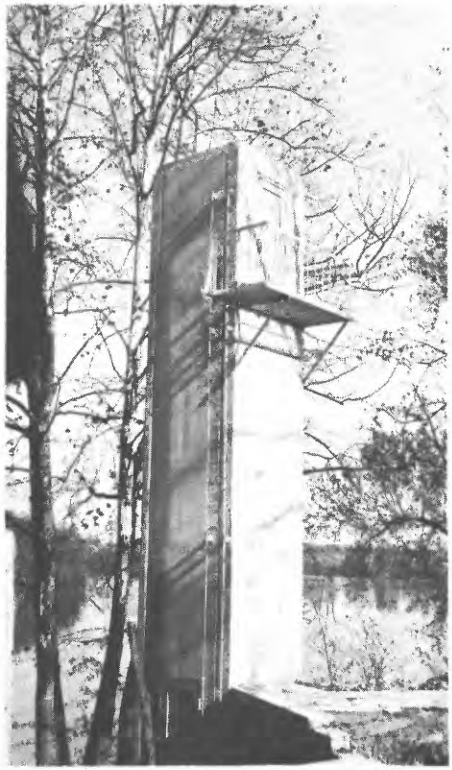
Beginning with the series of reports for the water year ending September 30, 1951, the order of listing gaging-station records was changed. In this report, in a downstream direction along the main stem all stations on a tributary entering above a main-stem station are listed before that station. If a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

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

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage and measurements of discharge. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to supplement base data in determining the daily flow. The records of stage are obtained either from direct readings on a 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. TENNESSEE RIVER AT KNOXVILLE, TENN.

B. NANTAHALA RIVER NEAR RAINBOW SPRINGS, N. C.

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 1956 is shown on page IV for the purpose of finding the day of the week for any date.

The description of the station gives the location, drainage area, records available, type and history of gages, average discharge, extremes of discharge, general remarks, and notations of revisions of the previously published record. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "Location" for some stations, is that determined and used by the Corps of Engineers unless otherwise noted. Under "Records available" are given the periods for which there are published records generally equivalent to those at the present site. Under "Gage" are given the type of gage currently in use and the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of records available. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having fewer than five complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). In the first paragraph, the data given are for the complete current water year unless otherwise specified. In the second paragraph, the data given are for the periods of record within the calendar year dates in the heading (not necessarily

those for the complete years indicated by the heading dates). Reliable information concerning major floods that have occurred outside the period of record are given in the third or last paragraph under "Extremes." Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder, a crest-stage indicator, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge, it is given separately. Information pertaining to the accuracy of the records and conditions which affect the natural flow at the gaging station is given under "Remarks."

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

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

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

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

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

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

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

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

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

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

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 on page 10. In many of these reports records for years earlier than those indicated have been included for some streams.

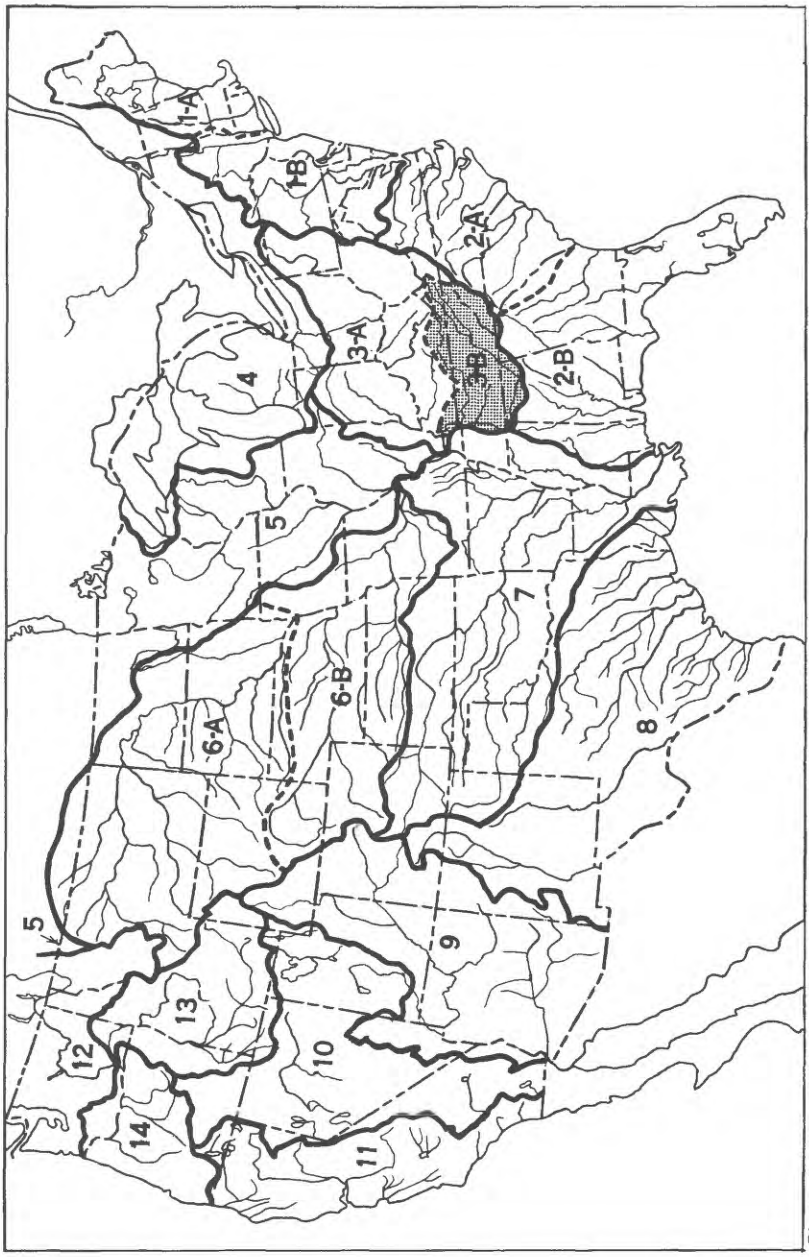


Figure 2.--Map of the United States showing areas covered by the 18 annual volumes on surface-water supply. The area covered by this report is shaded.

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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 Cumberland and Tennessee River basins were included with those of the other rivers of the Ohio River basin.

Numbers of water-supply papers containing results of stream measurements in Cumberland and Tennessee River basins, 1899-1956

Year	WSP	Year	WSP	Year	WSP	Year	WSP	Year	WSP
1899	36	1912	323	1925	603	1937	823	1949	1143
1900	48	1913	353	1926	623	1938	853	1950	1173
1901	65, 75	1914	383	1927	643	1939	873	1951	1206
1902	83	1915	403	1928	663	1940	893	1952	1236
1903	98	1916	433	1929	683	1941	923	1953	1276
1904	128	1917	453	1930	698	1942	953	1954	1336
1905	169	1918	473	1931	713	1943	973	1955	1386
1906	205	1919-20	503	1932	728	1944	1003	1956	1436
1907-8	243	1921	523	1933	743	1945	1033		
1909	263	1922	543	1934	758	1946	1053		
1910	283	1923	563	1935	783	1947	1083		
1911	303	1924	583	1936	803	1948	1113		

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 873 for the Cumberland and Tennessee River basins) 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
Alabama.....	1895-1915	Bull. 17, Water powers of Alabama.....	Geological Survey of Alabama.
Georgia.....	1895-1906	Bull. 16, Water powers of Georgia.....	Geological Survey of Georgia.
Do.....	1907-19	Bull. 38, Water powers of Georgia.....	Do.
Kentucky.....	1910-20	Surface waters of Kentucky.....	Kentucky Geological Survey.
North Carolina	1889-1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Do.....	1899-1936	Bull. 39, Discharge records of North Carolina streams.[1]	Do.
Do.....	1857-1945	Hydraulic Data on the French Broad River basin.	Do.
Tennessee.....	1874-1924	Bull. 34, Water resources of Tennessee[2]...	Department of Education.
Do.....	1920-30	Bull. 40, Surface waters of Tennessee.....	Do.
Virginia.....	1895-1927	Bull. 31, Water resources of Virginia.....	Virginia Geological Survey.
Do.....	1927-42	Bull. 7, Surface water supply of Virginia (New, Tennessee, and Big Sandy River basins).	Do.
Do.....	1942-50	Bull. 15, Surface water supply of Virginia (New, Big Sandy, and Tennessee River basins).	Do.
Do.....	1951-55	Bull. 19, Surface water supply of Virginia (New, Big Sandy, and Tennessee River basins).	Department of Conservation and Development

[1] Contains maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.
[2] Includes records of discharge for all stations in North Carolina in the Tennessee River basin.

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 is a list of these reports:

Report

WSP 334: The Ohio Valley flood of March-April 1913.
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 838: Floods of Ohio and Mississippi Rivers, January-February 1937.
WSP 847: Maximum discharges at stream-measurement stations through September 1938.
WSP 1066: Floods of August 1940 in the southeastern States.
WSP 1137-I: Summary of floods in the United States during 1950.
WSP 1227-A: Floods of March-April 1951 in Alabama and adjacent States.
Cir. 100: Floods in Georgia, frequency and magnitude.
Cir. 342: Floods in Alabama, frequency and magnitude.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The table below contains a list of gaging stations for the area covered by this report, at which records of discharge were collected during the water year October 1955 to September 1956 by agencies other than the Geological Survey. The records of these stations are not contained in publications of the Geological Survey, nor have they been published elsewhere.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Beech River.....	Near Darden, Tenn.....	1954-56	Tennessee Valley Authority.
Do.....	Near Lexington, Tenn.....	1953-56	Do.
Big Creek.....	Near Darden, Tenn.....	1953-56	Do.
Birdsong Creek.....	Near Holliday, Tenn.....	1940-56	Do.
Browns Creek.....	Near Chesterfield, Tenn.....	1953-56	Do.
Cane Creek.....	Near Shady Hill, Tenn.....	1953-56	Do.
Chambers Creek.....	Opposite Kendrick, Miss.....	1939-56a/	Do.
Chestuee Creek.....	Above Englewood, Tenn.....	1944-56	Do.
Do.....	Zion Hill, Tenn.....	1944-56	Do.
Do.....	Dentville, Tenn.....	1944-56	Do.

a/ Records observed near Kendrick from November 1939 to May 1942 and opposite Kendrick from May 1942 to 1956.

Records of discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Collected by
Coweeta Creek basin b/.	Coweeta Hydrologic Laboratory near Franklin, N. C.	1934-56	U. S. Forest Service.
Cypress Creek (drainage ditch).	Near Gilbertsville, Ky.	1943-56	Tennessee Valley Authority.
Fall Creek	Near Fort Patrick Henry Dam, Tenn.	1953-56	Do.
Flat Creek	Near Middlesburg, Tenn.	1953-56	Do.
Flint Creek c/	Near Hartselle, Ala.	1941-56	Do.
Haley Creek	Near Chesterfield, Tenn.	1953-56	Do.
Harmon Creek	Near Lexington, Tenn.	1953-56	Do.
Horse Creek	Near Savannah, Tenn.	1939-56	Do.
Indian Creek	Near Cerro Gordo, Tenn.	1939-56	Do.
Limestone Creek	U. S. Highway 72, near Athens, Ala.	1939-56	Do.
Little Chestuee Creek	Below Wilson Station, Tenn.	1947-56	Do.
Middle Creek	Below Highway 39 near Englewood, Tenn.	1944-56	Do.
Middleton Creek	Near Milledgeville, Tenn.	1939-56	Do.
Millican Creek	Near Douglas Dam, Tenn.	1942-56	Do.
Parker Branch	Near Leicester, N. C.	1952-56	Do.
Persimmon Creek	At Persimmon Creek Dam, near Letitia, N. C.	1942-56	Do.
Pigeon River basin d/	Near Waynesville, N. C.	1949-56	Do.
Pinetree Branch	Near Lexington, Tenn.	1941-56	Do.
Piney Creek	At Highway 104 near Lexington, Tenn.	1953-56	Do.
Pond Creek No. 1	Near Wilson Dam, Ala.	1948-56	Do.
Pond Creek No. 2	Do.	1948-56	Do.
Rushing Creek	Near Decaturville, Tenn.	1953-56	Do.
Snake Creek	Near Adamsville, Tenn.	1939-56	Do.
Turkey Creek (Beech River tributary).	Near Decaturville, Tenn.	1953-56	Do.
Turkey Creek (Tennessee River tributary).	Near Savannah, Tenn.	1939-56	Do.
West Flint Creek c/	Near Hartselle, Ala.	1941-56	Do.
White Creek	Near Sharps Chapel, Tenn.	1934-56	Do.
White Oak Creek	Near Milledgeville, Tenn.	1939-56	Do.
Wolf Creek	At Graper Springs, Tenn.	1953-56	Do.
Yellow Creek	At Moser Bridge near Doskie, Miss.	1937-56	Do.

b/ The Southeastern Forest Experiment Station of the U. S. Forest Service operates 31 stations in Coweeta Creek basin in order to obtain records of runoff from small areas.
c/ Gage heights only when affected by backwater from Wheeler Reservoir.
d/ The Tennessee Valley Authority operates stations on 6 small watersheds ranging in area from 3.5 to 5.6 acres in the Pigeon River basin.

HYDROLOGIC CONDITIONS

During the water year 1956, streamflow was deficient for about half the time in nearly all of the area covered by this report. Monthly mean discharge of French Broad River at Asheville, N. C., was record-low for the month in December and January, and the yearly mean was the lowest in a record beginning in 1895. Excessive streamflow occurred in parts of western Tennessee during February, and in southwestern Virginia during April. For three key gaging stations in the area covered by this report, a comparison of monthly and yearly mean discharges during the 1956 water year with the median discharges for the 25-year period (1921-45) is shown in figure 3 on the opposite page.

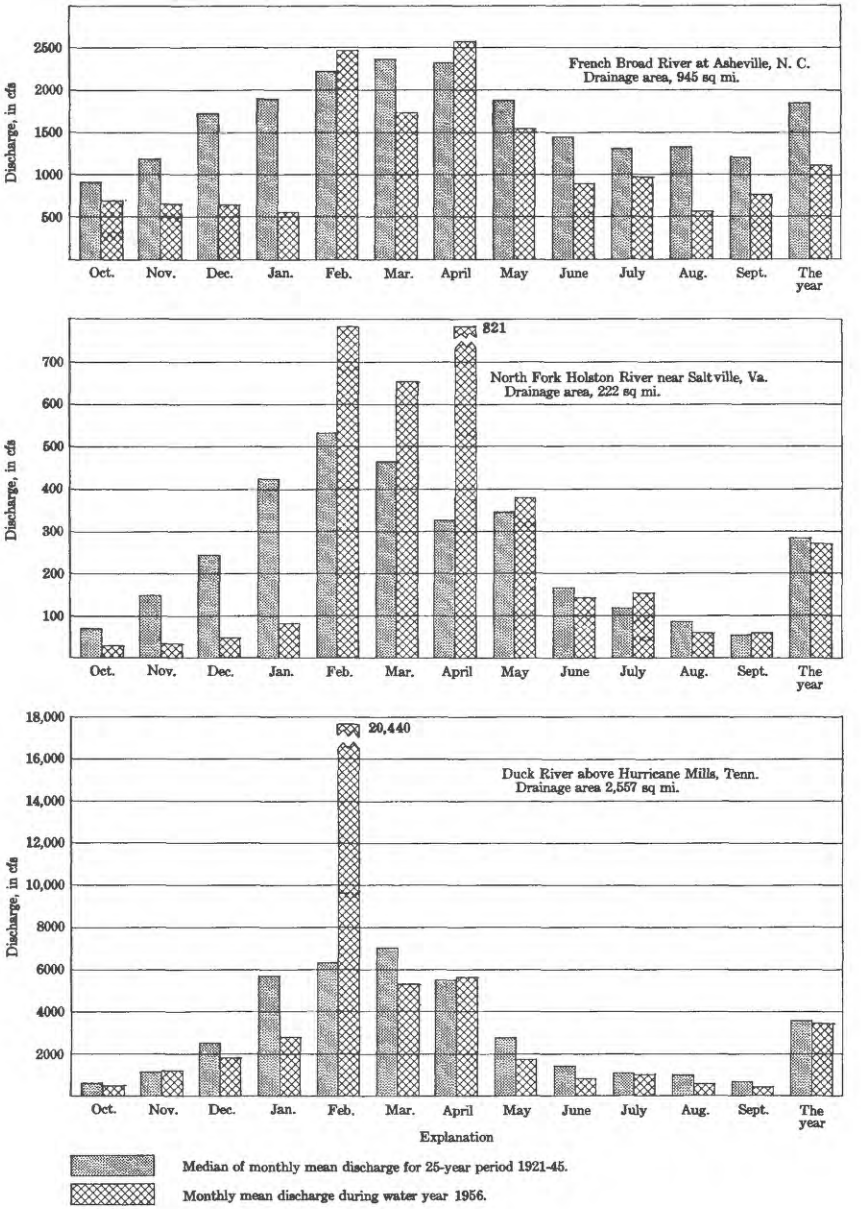

Figure 3. Comparison of discharge at three key gaging stations during 1956 water year with median discharge for 25-year period.

CUMBERLAND RIVER BASIN

Poor Fork at Cumberland, Ky.

Location.--Lat 36°58'25", long 82°59'35", at left end downstream side of Second Street Bridge at Cumberland, Harlan County, 0.1 mile upstream from Cloverlick Creek and 0.5 mile downstream from Looney Creek.
Drainage area.--82.1 sq mi.
Records available.--March 1940 to September 1956.
Gage.--Water-stage recorder. Datum of gage is 1,415.15 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.
Average discharge.--16 years, 139 cfs.
Extremes.--Maximum discharge during year, 5,140 cfs Apr. 15 (gage height, 7.24 ft); minimum, 5.5 cfs Oct. 25, 26 (gage height, 0.16 ft).
1940-56: Maximum discharge, 7,500 cfs Jan. 7, 1946 (gage height, 9.65 ft); from rating curve extended above 2,900 cfs by logarithmic plotting; no flow for part of Oct. 28, 1952.
Flood in January 1927 reached a stage about 0.5 ft higher than that of Jan. 7, 1946 (discharge, 12,000 cfs, estimated by Corps of Engineers). Flood in July 1939 reached a stage of 9.3 ft, from floodmarks.
Remarks.--Records good except those for periods of no gage-height record and those for period of indefinite stage-discharge relation, which are poor.
Revisions (water years).--WSP 923: 1940(M). WSP 1336: 1949-51, 1953(P).

Rating tables, water year 1955-56, except period of indefinite stage-discharge relation (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 6-25)

Oct. 1 to Jan. 29				Jan. 30 to Sept. 30			
0.1	5.5	1.0	118	-0.1	19	1.0	206
.2	10	1.5	245	0.0	22	2.0	530
.4	25	2.0	420	.1	27	3.0	950
.6	46	2.5	660	.2	35	4.0	1,560
				.3	47	5.0	2,440
				.6	103	6.0	3,640

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	8.0	10	21	319	250	274	167	271	24	*117	26
2	10	8.0	12	21	325	310	238	195	a235	24	86	32
3	8.0	8.0	12	a23	1,120	404	209	802	a130	22	63	53
4	7.0	7.5	90	a22	950	622	203	646	a100	22	52	35
5	*6.5	8.0	140	*18	782	456	184	394	a80	21	45	26
6	6.5	7.5	110	18	860	343	627	301	a65	21	37	*111
7	12	7.5	75	19	*920	355	798	250	a50	26	32	453
8	23	7.5	50	18	509	2,080	542	200	a39	43	29	220
9	14	7.0	70	17	358	746	394	167	37	43	26	117
10	10	7.5	60	17	286	460	322	146	33	32	25	74
11	8.5	8.5	50	a18	259	349	271	126	30	25	24	52
12	7.0	8.0	45	17	229	289	292	108	28	22	22	37
13	8.5	9.0	35	16	209	292	271	97	26	45	22	31
14	8.5	9.0	31	16	206	1,580	262	90	26	247	22	27
15	9.0	8.5	30	a18	271	*834	2,230	101	29	146	22	28
16	9.0	*12	28	19	289	538	2,600	112	27	138	21	26
17	7.5	19	28	16	518	436	*819	86	26	366	20	33
18	8.0	14	33	18	2,890	408	530	78	26	232	20	33
19	9.5	32	40	24	875	411	386	71	27	119	239	31
20	8.0	33	48	a31	885	369	307	63	30	119	247	22
21	7.5	21	42	a36	666	328	250	*55	37	186	170	21
22	7.5	15	38	30	439	301	215	50	109	131	124	20
23	7.0	14	35	27	328	266	212	46	144	90	76	22
24	7.0	14	32	30	442	328	178	41	154	80	52	27
25	6.5	12	30	28	930	397	162	36	92	238	36	22
26	6.5	12	28	*26	774	352	151	33	*55	253	32	21
27	7.0	11	26	25	481	295	141	34	40	141	28	22
28	7.0	11	24	25	369	259	128	52	33	128	26	22
29	8.0	10	22	536	286	422	117	46	29	397	25	21
30	7.5	*10	a22	960	-------	422	128	40	26	280	25	20
31	7.5	-------	b22	512	-------	337	-------	46	-------	178	25	-------
Total	274.5	359.5	1,318	2,622	17,775	15,241	13,441	4,679	2,034	3,839	1,790	1,685
Mean	8.85	12.0	42.5	84.6	613	492	448	151	67.8	124	57.7	56.2
Cfsm	0.108	0.146	0.518	1.03	7.47	5.99	5.46	1.84	0.826	1.51	0.703	0.685
In.	0.12	0.16	0.60	1.19	8.05	6.90	6.09	2.12	0.92	1.74	0.81	0.76

Calendar year 1955: Max 2,400 Min 6 Mean 134 Cfsm 1.63 In. 22.10
Water year 1955-56: Max 2,890 Min 6.5 Mean 178 Cfsm 2.17 In. 29.46

Peak discharge (base, 1,200 cfs).--Jan. 29 (8 p.m.) 1,220 cfs (3.49 ft); Feb. 3 (3:30 p.m.) 1,570 cfs (4.01 ft); Feb. 6 (11:30 p.m.) 1,250 cfs (3.54 ft); Feb. 18 (8 a.m.) 4,020 cfs (6.32 ft); Mar. 8 (9:30 a.m.) 3,180 cfs (5.62 ft); Mar. 14 (2 p.m.) 2,450 cfs (5.01 ft); Apr. 6 (8:30 p.m.) 1,240 cfs (3.52 ft); Apr. 15 (8 p.m.) 5,140 cfs (7.24 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage when available, 2 discharge measurements, weather records, and records for Cumberland River near Harlan.
b Stage-discharge relation affected by ice.
Note.--Stage-discharge relation indefinite Dec. 4-29; discharge estimated on basis of weather records and records for Cumberland River near Harlan.

Cumberland River near Harlan, Ky.

Location.--Lat 36°50'55", long 83°21'20", on left bank 10 ft downstream from bridge on U. S. Highway 119 at Loyall, 1.6 miles upstream from Fourmile Branch, 2.0 miles downstream from confluence of Poor and Clover Forks, and 2 miles west of Harlan, Harlan County.

Drainage area.--374 sq mi.

Records available.--March 1940 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,140.10 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Mar. 4, 1941, staff gage at same site and datum.

Average discharge.--16 years, 647 cfs.

Extremes.--Maximum discharge during year, 22,000 cfs Apr. 16 (gage height, 15.75 ft); minimum, 18 cfs Nov. 2 (gage height, 0.35 ft).
1940-56: Maximum discharge, 37,900 cfs Jan. 8, 1946 (gage height, 22.81 ft); minimum, 3.0 cfs Oct. 9, 1953.
Floods of 1918 and 1929 reached stages of about 22 and 20.0 ft respectively, from information by local residents.

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

Revisions (water years).--WSP 953: 1940(M). WSP 1173: 1947(M).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 4				Dec. 5 to Sept. 30			
0.3	15	1.0	150	0.5	53	2.5	920
.4	26	1.5	320	.7	90	3.0	1,350
.6	58	2.0	550	1.0	165	5.0	3,550
.8	100			1.5	330	8.0	7,750
				2.0	590	12.0	14,500

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	20	47	104	1,240	1,050	1,430	638	1,920	106	*258	92
2	78	20	54	106	1,190	1,390	1,210	674	1,390	98	234	122
3	49	22	66	110	4,960	2,420	1,210	3,240	756	153	213	141
4	37	22	370	102	4,880	4,170	1,290	3,120	519	115	180	266
5	30	20	1,020	*94	4,230	2,270	1,590	1,680	390	98	162	150
6	26	22	460	88	5,140	1,670	3,730	d1,000	310	106	150	*234
7	30	22	280	94	6,110	1,400	5,210	d800	262	108	132	939
8	74	23	213	76	*2,340	7,310	2,630	d700	225	201	122	650
9	112	22	219	60	1,430	3,820	1,820	d560	204	357	110	357
10	76	27	198	82	976	2,040	1,420	d500	180	240	102	240
11	56	37	156	86	860	1,960	1,190	d430	156	165	96	189
12	42	34	120	88	775	1,620	1,080	d340	141	120	100	153
13	37	34	102	84	723	1,640	976	348	128	138	96	128
14	49	40	115	60	723	8,440	920	330	125	2,100	96	110
15	44	53	120	67	1,140	*5,020	6,160	d430	159	1,190	92	96
16	36	*54	88	80	1,110	2,610	13,600	d500	128	*6,350	84	90
17	*34	98	92	65	3,460	2,130	*4,000	d300	141	2,570	76	84
18	32	115	120	63	14,100	1,940	2,340	d260	135	1,420	76	100
19	33	168	180	90	4,820	1,840	1,620	d240	112	810	633	94
20	37	266	204	118	4,680	1,580	1,200	d230	120	590	875	78
21	33	183	204	153	2,970	1,300	936	*d215	147	590	905	70
22	32	125	180	135	1,860	1,110	789	d210	395	470	530	67
23	30	105	171	144	1,290	1,000	749	d270	475	375	314	65
24	25	120	156	138	1,450	1,080	638	d190	370	375	225	94
25	23	115	147	130	4,960	1,310	566	168	*400	445	174	92
26	20	105	144	122	4,520	1,300	519	153	290	608	138	80
27	23	91	138	102	2,250	1,160	486	147	213	420	118	72
28	20	76	130	106	1,660	1,060	445	192	159	310	108	76
29	20	64	118	1,750	1,230	3,010	410	375	130	508	104	74
30	22	*54	118	5,770	-------	2,930	405	269	112	497	98	68
31	20	-------	118	2,750	-------	1,880	-------	258	-------	339	96	------
Total	1,271	2,157	5,848	13,017	87,077	73,460	60,569	18,767	10,192	21,972	6,697	5,071
Mean	41.0	71.9	189	420	3,003	2,370	2,019	605	340	709	216	169
Cfsm	0.110	0.192	0.505	1.12	8.03	6.34	5.40	1.62	0.909	1.90	0.578	0.452
In.	0.13	0.21	0.58	1.29	8.66	7.30	6.02	1.87	1.01	2.18	0.67	0.50

Calendar year 1955: Max 13,500 Min 7.8 Mean 615 Cfsm 1.64 In. 22.32
Water year 1955-56: Max 14,100 Min 20 Mean 836 Cfsm 2.24 In. 30.42

Peak discharge (base, 8,200 cfs).--Feb. 6 (11:30 p.m.) 9,880 cfs (9.33 ft); Feb. 18 (10:30 a.m.) 19,400 cfs (14.50 ft); Mar. 8 (1 p.m.) 9,830 cfs (9.30 ft); Mar. 14 (1 p.m.) 12,200 cfs (10.72 ft); Apr. 16 (1 a.m.) 22,000 cfs (15.75 ft); July 16 (7 a.m.) 11,800 cfs (10.47 ft).

* Discharge measurement made on this day.

d Doubtful gage-height record; discharge estimated on basis of 1 discharge measurement, appearance of recorder chart, weather records, and records for stations on nearby streams.

Yellow Creek near Middlesboro, Ky.

Location (revised).--Lat 36°39'05", long 83°42'05", on right bank on U. S. Highway 25E, 0.4 mile upstream from Low Ash Hollow, 3 miles north of Middlesboro, Bell County, and 6.0 miles upstream from Clear Fork.

Drainage area.--58.2 sq mi (revised).

Records available.--August 1940 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 1,104.20 ft above mean sea level, Sandy Hook datum. Prior to Jan. 7, 1941, staff gage at same site and datum.

Average discharge.--16 years, 102 cfs.

Extremes.--Maximum discharge during year, 3,000 cfs Feb. 18 (gage height, 13.36 ft); minimum, 3.2 cfs Oct. 25 or 26.
1940-56: Maximum discharge, 6,160 cfs Jan. 7, 1946 (gage height, 20.92 ft); no flow for part of Sept. 26, 1952 (caused by construction work above gage).
Flood in March 1929 reached a stage of about 19.6 ft; flood of Feb. 3, 1939, reached a stage of 18.5 ft, from floodmarks.

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

Revisions (water years).--WSP 953: 1941(M). WSP 973: 1942(M).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 4				Dec. 5 to Sept. 30			
1.0	3.0	1.7	68	1.0	3.0	2.0	119
1.1	5.8	2.0	110	1.1	6.3	3.0	281
1.2	11	2.5	185	1.15	9.0	6.0	750
1.4	30	3.0	260	1.2	13	9.0	1,450
				1.5	44	12.0	2,420

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	4.0	8.6	16	228	124	114	57	268	32	68	10
2	5.5	4.0	14	16	319	165	125	70	108	35	58	18
3	5.2	4.3	17	16	795	401	124	389	66	44	42	10
4	4.9	4.6	260	*14	776	634	260	366	47	32	26	9.0
5	4.9	4.6	156	14	610	351	256	223	36	30	20	10
6	5.2	4.6	68	14	691	242	809	150	30	26	16	80
7	16	4.9	45	13	601	180	642	119	26	22	14	*119
8	25	4.6	36	9.7	331	558	354	95	22	18	11	56
9	8.6	a4	64	9.7	218	414	242	80	20	20	10	34
10	6.2	a3.5	50	12	144	274	177	70	18	16	9.0	26
11	5.2	a6	41	11	178	201	151	63	16	14	8.4	20
12	5.2	a5	34	12	160	162	116	53	14	13	8.4	18
13	7.0	a4	28	10	158	212	93	48	13	31	7.8	14
14	8.6	a4	26	8.4	173	*1,620	87	43	12	32	9.7	13
15	5.8	a8	24	10	239	674	535	48	11	26	18	11
16	5.2	a7	20	10	210	419	1,190	45	12	45	10	9.0
17	*5.2	a11	20	9.7	679	338	492	36	10	98	7.8	8.4
18	5.2	a8	30	8.4	*2,090	292	*316	32	14	54	15	7.8
19	5.2	a32	37	22	721	223	220	30	33	34	76	7.3
20	5.2	a30	35	26	774	167	160	28	306	36	196	6.8
21	4.6	a23	32	22	437	136	125	24	95	30	223	6.3
22	a4	a20	30	22	282	116	109	24	185	22	62	5.9
23	a4	a17	28	24	194	100	103	*26	654	20	39	7.3
24	a4	a15	26	30	234	153	84	28	258	50	28	13
25	a3.5	a15	24	29	540	129	75	22	254	63	22	7.3
26	a4.5	a14	20	26	593	122	69	20	132	32	18	6.8
27	a4	a14	18	26	336	109	68	20	*87	26	16	6.3
28	a4	*13	16	28	256	97	62	24	58	20	16	6.3
29	*4.0	11	16	528	175	196	57	24	48	14	16	5.9
30	3.7	9.2	18	*1,180	-------	173	54	20	37	14	14	5.5
31	4.0	---	16	446	-------	141	-------	35	-------	*12	11	-------
Total	194.6	309.3	1,257.6	2,621.9	13,142	9,123	7,269	2,312	2,890	961	1,096.1	557.9
Mean	6.28	10.3	40.6	84.6	453	294	242	74.6	96.3	31.0	35.4	18.6
Cfsm	0.108	0.177	0.698	1.45	7.78	5.05	4.16	1.28	1.65	0.533	0.608	0.320
In.	0.12	0.20	0.80	1.68	8.40	5.83	4.64	1.48	1.85	0.61	0.70	0.36

Calendar year 1955: Max 3,050 Min 1.5 Mean 99.4 Cfsm 1.71 In. 23.18
Water year 1955-56: Max 2,090 Min 3.5 Mean 114 Cfsm 1.96 In. 26.67

Peak discharge (base, 1,800 cfs).--Feb. 18 (9:30 a.m.) 3,000 cfs (13.36 ft); Mar. 14 (12:30 p.m.) 2,350 cfs (11.83 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, 2 discharge measurements, weather records, and records for stations on nearby streams.

Cumberland River near Pineville, Ky.

Location.--Lat 36°48'48", long 83°45'58", on downstream side of bridge on U. S. Highway 25E, 0.5 mile south of Flat Lick, 2.4 miles downstream from Greasy Creek, 4.7 miles upstream from Stinking Creek, and 5.0 miles northwest of Pineville, Bell County. Prior to Mar. 19, 1956, on downstream side of center pier of bridge on former location of U. S. Highway 25E, 200 ft upstream.

Drainage area.--809 sq mi (revised).

Records available.--August 1938 to September 1956.

Gage.--Wire-weight gage read twice daily. Datum of gage is 955.45 ft above mean sea level, Sandy Hook datum. Prior to June 23, 1939, wire-weight gage at same site and datum. June 23, 1939, to Mar. 19, 1956, water-stage recorder at bridge 200 ft upstream at same datum. Since May 26, 1943, auxiliary staff gage, read twice daily, 1.9 miles upstream from base gage.

Average discharge.--18 years, 1,293 cfs.

Extremes.--Maximum discharge during year, 30,600 cfs Feb. 18; maximum gage height, 40.98 ft Feb. 18; minimum discharge, 23 cfs Oct. 29 (gage height, 5.02 ft).
1938-56: Maximum discharge, 57,900 cfs Jan. 8, 1946 (gage height, 49.31 ft); from rating curve extended above 36,000 cfs on basis of slope-area determinations at gage heights 44.34, 47.3 and 49.31 ft; minimum, 6.0 cfs Oct. 6, 1952, Oct. 18, 1953.
Flood in March 1929 reached a stage of 47.3 ft (discharge, 51,000 cfs).

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are fair. Low flow regulated by powerplant 1.9 miles upstream from station.

Revisions (water years).--WSP 953: Drainage area. WSP 1053: 1939.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Fall used as a factor Dec. 4-6, Jan. 29 to Feb. 1, Feb. 3-13, 16-29, Mar. 3-12, 14-20, 29, 30, Apr. 10, 11, 15-19, May 3-5, June 23-25, July 15-18)

Oct. 1 to Feb. 17				Feb. 18 to Sept. 30			
5.1	29	9.0	1,350	5.7	112	9.0	1,380
5.4	54	11.0	2,550	6.0	176	11.0	2,550
5.8	108	15.0	5,300	6.5	295	15.0	5,300
6.4	232	20.0	9,800	7.0	450	20.0	9,800
7.0	410	26.0	15,200	8.0	880	33.0	32,000

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	32	105	181	3,140	2,110	2,330	799	2,220	250	498	180
2	78	35	103	166	2,770	2,110	1,940	1,070	2,740	216	538	172
3	91	32	105	160	8,560	4,500	1,950	4,720	*1,450	222	408	208
4	77	36	411	*160	11,400	5,680	a2,300	7,220	1,020	300	350	567
5	58	35	1,390	150	10,600	3,960	a3,500	3,650	776	250	290	566
6	46	35	1,080	141	8,460	3,200	a6,000	2,620	570	250	255	466
7	49	36	714	132	14,600	2,590	a10,000	2,000	474	245	228	a1,850
8	95	37	462	128	*6,880	9,000	a6,000	1,540	374	216	207	a1,520
9	126	38	430	121	3,110	10,300	a3,500	1,250	332	272	189	a930
10	108	42	418	105	2,120	3,660	2,640	1,050	295	401	167	*610
11	112	44	350	103	1,900	2,730	2,210	900	270	310	154	436
12	81	43	278	122	1,830	2,370	1,880	*772	238	238	145	344
13	74	51	221	121	1,760	2,410	1,570	673	207	218	154	295
14	74	64	192	105	1,730	11,900	1,380	606	187	846	172	250
15	73	61	197	98	2,670	14,700	3,400	594	174	2,520	154	218
16	71	77	192	102	2,800	6,590	17,900	736	a170	7,600	154	189
17	68	117	158	95	5,310	4,730	11,900	a500	a160	8,760	130	169
18	61	146	160	92	21,400	3,930	*6,160	a400	180	3,300	114	152
19	64	244	225	105	*19,200	*3,420	3,700	a350	225	1,900	285	141
20	53	403	322	150	12,000	2,810	2,670	a300	470	1,440	a2,500	147
21	58	430	358	192	8,240	2,430	2,060	a275	655	1,710	*a3,000	141
22	48	292	331	225	4,380	2,050	1,690	*308	602	1,100	1,810	116
23	54	237	292	237	2,490	*1,740	1,570	300	2,070	790	995	116
24	55	244	272	248	2,510	1,720	1,360	305	1,420	844	624	338
25	*44	244	248	246	6,150	1,900	1,180	295	1,640	1,110	450	205
26	41	232	230	237	8,850	1,960	1,070	260	848	910	338	180
27	40	206	212	219	5,110	1,830	985	235	*812	844	285	145
28	39	*181	199	201	3,300	1,620	905	265	530	624	245	132
29	30	150	186	1,770	2,580	3,790	830	308	458	632	235	124
30	38	124	188	11,500	-------	4,900	786	450	315	830	220	114
31	42	-------	186	8,820	-------	2,920	-------	794	-------	*655	198	-------
Total	2,020	3,948	10,215	26,432	186,450	129,560	105,366	35,545	21,912	39,803	15,492	11,021
Mean	65.2	132	330	853	6,429	4,179	3,513	1,147	730	1,284	500	367
Cfsm	0.081	0.163	0.408	1.05	7.95	5.17	4.34	1.42	0.902	1.59	0.618	0.454
In.	0.09	0.18	0.47	1.22	8.57	5.96	4.84	1.63	1.01	1.83	0.71	0.51

Calendar year 1955: Max 26,400 Min 7.0 Mean 1,308 Cfsm 1.62 In. 21.96
Water year 1955-56: Max 21,400 Min 30 Mean 1,606 Cfsm 1.99 In. 27.02

Peak discharge (base, 16,000 cfs).--Feb. 18 (8 p.m.) 30,600 cfs (40.98 ft at 10 p.m.); Mar. 14 (11:30 p.m.) 19,900 cfs (33.21 ft at 2:30 a.m., Mar. 15); Apr. 16 (11 a.m.) 20,800 cfs (37.68 ft 8 to 9 p.m.).

* Discharge measurement made on this day.

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

Cumberland River at Barbourville, Ky.

Location.--Lat 36°51'45", long 83°53'13", near center of span on upstream side of bridge on State Highway 11, at Barbourville, Knox County, 0.4 mile upstream from Richland Creek.

Drainage area.--960 sq mi (revised).

Records available.--October 1922 to September 1931, July 1948 to September 1956.

Gage.--Wire-weight gage and crest-stage indicator; gage read twice daily. Datum of gage is 943.23 ft above mean sea level, Sandy Hook datum. Prior to Oct. 1, 1931, staff or chain gage at same site and at datum 4.0 ft higher.

Average discharge.--17 years, 1,721 cfs.

Extremes.--Maximum discharge during year, 28,500 cfs Feb. 19; maximum gage height, 35.81 ft Feb. 19; minimum discharge not determined.
1922-31, 1948-56: Maximum discharge, 47,900 cfs May 31, 1927, from rating curve extended above 20,000 cfs on basis of runoff comparisons with nearby stations; maximum gage height, 40.25 ft Feb. 2, 1951; minimum discharge observed, 0.2 cfs Oct. 5, 1930 (gage height, -0.25 ft, datum then in use).
Flood in January 1946 reached a stage of 42.8 ft, present datum.

Remarks.--Records good above 1,000 cfs and fair below.

Revisions (water years).--WSP 603: 1923-24. WSP 1336: 1923(M), 1925(M), 1927, 1929, 1950-51.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 2-9, 15-23, 25-28, Mar. 3-12, 14-20, 29-31, Apr. 6-9, 15-20, May 3-5; rate of change in stage used as a factor for most days above 4,100 cfs)

1.4	29	6.0	3,560
1.6	64	10.0	5,350
1.8	117	20.0	10,700
2.0	197	30.0	20,700
3.0	790	40.0	40,000
4.0	1,530		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	37	105	229	5,220	a2,750	2,530	814	1,340	280	562	a205
2	94	39	105	197	3,070	2,240	2,050	1,010	3,350	245	514	a190
3	83	34	121	a185	6,650	3,380	2,020	3,540	1,730	322	460	179
4	86	a37	286	a185	12,500	7,480	2,010	6,940	1,020	310	412	340
5	69	37	1,730	184	13,500	6,020	2,750	4,470	784	286	298	622
6	58	34	1,430	*171	9,960	4,450	4,960	3,050	604	286	280	424
7	74	34	838	171	13,800	3,340	13,200	1,990	508	250	a250	1,390
8	117	39	628	149	9,220	9,350	6,910	1,620	418	229	a220	2,210
9	128	39	574	a140	*4,640	11,500	4,490	1,290	352	239	a200	1,030
10	124	45	514	a130	2,420	5,830	3,290	1,010	316	436	a180	*670
11	131	a46	490	a125	1,900	3,880	2,490	942	280	364	a160	478
12	100	a45	406	128	a1,850	3,060	1,950	844	239	256	a150	394
13	76	45	322	149	a1,800	*2,880	1,560	730	218	250	a160	304
14	81	60	250	131	1,880	11,400	1,380	670	208	706	a175	250
15	81	69	262	a115	3,400	18,200	3,760	646	188	2,580	a160	a230
16	76	a75	245	a120	3,870	9,220	19,700	652	a180	*6,180	a160	a200
17	66	a110	218	a115	6,940	6,660	*18,900	598	a175	10,400	a140	a180
18	78	131	197	a110	23,400	4,700	10,600	526	a170	*5,300	a125	a165
19	76	246	274	117	*26,500	3,920	5,380	448	274	2,310	a200	a155
20	71	478	382	142	19,900	3,400	3,460	a400	352	1,450	*2,740	a150
21	62	508	436	256	13,900	2,810	2,190	376	568	1,590	*3,530	a155
22	54	400	394	280	7,300	2,330	1,770	*352	592	1,170	1,960	a130
23	58	334	406	352	4,180	1,820	1,610	328	2,050	862	1,000	a125
24	54	304	370	340	2,960	1,750	1,400	340	1,420	790	664	376
25	*54	268	322	334	6,200	1,960	1,210	322	*1,560	1,120	478	245
26	47	250	274	496	9,650	2,020	1,080	280	1,460	936	364	a190
27	47	229	a250	304	5,920	1,930	1,000	245	862	910	292	a160
28	54	171	239	268	4,060	1,670	923	268	598	706	a270	a140
29	51	*153	239	1,610	3,050	2,920	874	328	442	706	a250	a130
30	37	146	229	12,000	-------	4,710	832	538	352	*796	a240	a125
31	39	-------	229	11,400	-------	3,650	-------	a800	-------	712	a220	-------
Total	2,300	4,443	12,765	30,633	229,640	151,230	126,279	36,367	22,610	42,977	16,814	11,542
Mean	74.2	148	412	988	7,919	4,878	4,209	1,173	754	1,386	542	385
Cfsm	0.077	0.154	0.429	1.03	8.25	5.08	4.38	1.22	0.785	1.44	0.565	0.401
In.	0.09	0.17	0.49	1.19	8.90	5.86	4.89	1.41	0.88	1.66	0.65	0.45

Calendar year 1955: Max 25,400 Min 7 Mean 1,555 Cfsm 1.62 In. 21.99
Water year 1955-56: Max 26,500 Min 34 Mean 1,879 Cfsm 1.96 In. 26.64

Peak discharge (base, 18,000 cfs).--Feb. 19 (1:30 a.m.) 28,500 cfs (35.81 ft at 12 m.); Mar. 14 (9 p.m.) 22,500 cfs (29.81 ft at 10:30 to 12:30 p.m., Mar. 15); Apr. 16 (6:30 p.m.) 22,700 cfs (32.24 ft at 5:30 to 7:30 a.m., Apr. 17).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for station near Pineville.

Cumberland River at Williamsburg, Ky.

Location.--Lat 36°44'38", long 84°09'30", on left bank 10 ft downstream from bridge on U. S. Highway 25W and State Highway 92 at Williamsburg, Whitley County, and 2.1 miles downstream from Clear Fork.

Drainage area.--1,607 sq mi (revised).

Records available.--October 1950 to September 1956. Gage-height records collected in this vicinity since 1908 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 891.52 ft above mean sea level, unadjusted. Prior to July 2, 1951, wire-weight gage at same site and datum.

Average discharge.--6 years, 2,631 cfs.

Extremes.--Maximum discharge during year, 29,800 cfs Feb. 19 (gage height, 25.79 ft); minimum, 41 cfs Nov. 9 (gage height, 1.97 ft).
1950-56: Maximum discharge, 37,200 cfs Feb. 2, 1951 (gage height, 29.85 ft); minimum, 6.1 cfs Oct. 23, 25, 26, 27, 1953 (gage height, 1.64 ft).
Maximum stage since at least 1918, 34.2 ft Jan. 10, 1946 (present datum), from graph based on U. S. Weather Bureau gage readings. Flood of Mar. 25, 1929, reached a stage of 32.7 ft, from graph based on U. S. Weather Bureau gage readings.

Remarks.--Records good. Records of chemical analyses, suspended sediment loads, and water temperatures for the water year 1956 are given in WSP 1450.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 27-30, Dec. 8 to Jan. 29, Apr. 30 to May 2, May 12 to June 1, Aug. 26 to Sept. 5, Sept. 12-26)

1.9	32	6.0	2,410
2.1	60	10.0	6,500
2.5	145	20.0	19,900
3.0	310	26.0	30,200
4.0	810		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	184	54	226	418	15,100	4,140	4,300	1,340	918	465	810	272
2	169	52	208	400	9,450	3,540	3,260	1,310	2,900	413	630	244
3	130	48	205	382	11,200	4,280	3,160	2,670	3,340	680	690	233
4	120	48	317	359	17,900	10,900	3,650	8,160	1,890	545	615	233
5	118	48	2,510	342	20,700	13,000	5,070	8,920	1,270	535	505	395
6	109	46	3,020	*334	20,000	9,640	7,150	5,720	951	480	400	680
7	96	45	2,120	322	*19,800	6,360	15,000	3,720	750	418	326	900
8	128	42	1,330	300	17,700	8,730	16,400	2,890	615	426	282	2,190
9	268	42	1,110	282	14,600	14,800	13,000	2,330	520	413	250	1,880
10	247	44	1,240	254	7,600	15,300	7,040	1,900	445	359	226	1,120
11	216	48	1,160	254	4,060	10,900	4,500	1,610	386	470	199	744
12	175	48	979	244	3,820	5,720	3,600	1,400	338	436	190	*555
13	175	51	810	258	3,740	*4,710	2,930	1,220	303	346	175	445
14	151	60	675	268	3,560	10,900	2,490	1,080	282	436	175	372
15	142	65	600	244	5,360	21,000	3,350	1,010	*258	1,820	190	322
16	140	82	535	236	7,120	20,900	15,200	1,040	250	3,590	181	278
17	130	125	480	226	8,940	18,100	21,000	1,050	230	8,820	172	244
18	120	151	382	*219	22,400	12,400	20,900	937	240	11,200	160	*216
19	113	226	470	236	28,600	7,530	18,300	804	226	6,760	145	*196
20	109	565	525	286	*29,300	5,680	*10,900	702	334	2,680	*1,010	178
21	105	655	640	431	27,300	4,600	4,540	640	575	1,850	3,580	166
22	102	630	714	560	22,700	3,770	3,260	585	645	1,920	3,620	178
23	94	520	696	620	15,800	3,170	2,840	540	702	1,390	1,960	160
24	*90	545	655	665	7,020	2,820	2,580	510	2,490	1,080	1,100	175
25	80	515	615	680	7,150	2,940	2,230	*515	1,750	1,380	744	*289
26	74	470	560	675	12,300	2,950	1,940	495	1,960	1,740	555	289
27	73	404	500	650	13,500	2,950	1,750	445	1,590	1,310	436	208
28	69	350	460	615	10,200	2,770	1,620	455	*993	1,120	382	187
29	62	*300	422	1,930	6,060	2,810	1,480	625	696	858	342	166
30	60	258	413	12,200	-------	5,650	1,380	650	525	*834	310	148
31	56	-------	413	18,400	-------	6,240	-------	726	-------	918	292	-------
Total	3,905	6,537	24,990	43,290	392,980	249,200	204,820	55,999	28,372	55,692	20,652	13,663
Mean	126	218	806	1,396	13,550	8,039	6,827	1,806	946	1,797	666	455
Cfsm	0.078	0.136	0.502	0.869	8.43	5.00	4.25	1.12	0.589	1.12	0.414	0.283
In.	0.09	0.15	0.58	1.00	9.09	5.77	4.74	1.30	0.66	1.29	0.48	0.32

Calendar year 1955: Max 29,500 Min 13 Mean 2,441 Cfsm 1.52 In. 20.63
Water year 1955-56: Max 29,300 Min 42 Mean 3,006 Cfsm 1.87 In. 25.47

Peak discharge (base, 20,000 cfs).--Feb. 5 (3 p.m.) 21,000 cfs (20.68 ft); Feb. 19 (11 p.m.) 29,800 cfs (25.79 ft); Mar. 15 (7 p.m.) 22,500 cfs (21.60 ft); Apr. 17 (2:30 p.m.) 21,200 cfs (20.79 ft).
* Discharge measurement made on this day.

Cumberland River at Cumberland Falls, Ky.

Location.--Lat 36°50'14", long 84°20'36", on left bank 700 ft downstream from bridge on State Highway 90 and 1,200 ft upstream from Cumberland Falls, Whitley County.

Drainage area.--1,977 sq mi (revised).

Records available.--August 1907 to December 1911, April 1915 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 825.49 ft above mean sea level, Sandy Hook datum. Aug. 15, 1907, to Dec. 10, 1911, staff gage at site 300 ft downstream at different datum. Apr. 3, 1915, to Sept. 1, 1933, staff gage at site 500 ft downstream at same datum.

Average discharge.--44 years (1907-11, 1915-31, 1932-56), 3,126 cfs.

Extremes.--Maximum discharge during year, 35,100 cfs Feb. 18 (gage height, 11.16 ft); minimum not determined.
1907-11, 1915-56: Maximum discharge, 59,600 cfs Jan. 28, 1918 (gage height 15.5 ft, present site and datum); minimum, 4 cfs Sept. 19, 1954.

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

Revisions (water years).--WSP 1386: 1919.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	32	3.0	2,430
1.2	70	4.5	6,120
1.4	200	6.0	11,000
1.8	580	8.0	18,800
2.5	1,520	11.0	34,100

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	264	60	370	420	16,100	5,130	5,070	1,590	760	536	*979	307
2	272	55	325	420	11,700	4,300	3,880	1,590	1,690	616	856	280
3	240	51	298	410	14,400	4,600	3,760	2,110	3,760	580	760	256
4	186	51	380	400	21,800	11,100	4,580	7,120	2,390	772	820	240
5	165	a50	1,840	380	23,000	14,100	6,210	9,490	1,570	640	676	232
6	151	a48	3,130	361	21,600	11,300	11,500	6,790	1,180	736	536	583
7	165	a46	2,630	343	21,700	7,830	17,800	4,480	940	525	440	736
8	158	a45	1,710	325	*18,400	10,200	17,500	3,420	784	514	370	1,660
9	208	a45	1,260	b300	15,600	15,500	14,800	2,740	664	547	325	2,160
10	343	a47	1,260	289	9,590	16,000	8,960	2,240	547	481	280	1,490
11	325	a50	1,300	*272	5,150	12,700	5,530	1,910	470	430	256	1,000
12	272	a50	1,150	272	4,730	7,490	4,380	1,640	440	558	232	*664
13	256	a54	966	272	4,550	*5,620	3,540	1,440	a370	525	200	558
14	248	a60	796	b280	4,450	15,100	2,970	1,260	a325	628	216	450
15	232	65	676	289	7,030	23,200	3,640	1,140	a300	920	200	380
16	200	70	616	b265	8,920	22,500	16,800	1,100	a270	3,400	216	316
17	186	88	525	b230	14,400	20,000	22,500	1,130	a250	6,880	200	272
18	172	137	492	b225	32,200	14,900	*21,600	1,080	a260	10,900	193	240
19	158	a200	492	240	31,300	9,250	19,100	990	a235	8,020	193	208
20	144	a500	492	264	*32,900	6,550	12,600	880	a300	3,570	264	186
21	137	a700	547	343	29,100	5,370	5,810	*796	547	1,970	2,510	172
22	130	a550	652	514	24,000	4,420	3,950	724	736	2,010	3,860	158
23	124	a570	724	616	17,800	3,740	3,400	640	640	1,690	2,590	158
24	112	a600	712	676	9,590	3,350	3,060	569	1,750	1,280	1,460	151
25	100	a620	a640	724	7,980	3,310	2,650	525	2,140	1,340	992	151
26	88	a560	a580	736	13,200	3,310	2,340	525	1,730	1,850	736	288
27	*82	a500	a540	724	14,500	3,310	2,130	514	*1,920	1,570	569	272
28	76	a460	a480	700	12,200	3,180	1,960	481	1,280	1,280	481	216
29	76	a430	a450	2,410	7,390	3,080	1,800	569	904	1,070	460	186
30	70	*a400	a430	14,600	-------	4,760	1,660	652	688	940	390	165
31	60	---	a420	18,800	-------	6,700	--------	664	--	928	343	----
Total	5,400	7,162	26,883	47,100	455,280	281,900	235,480	60,799	29,840	57,706	22,603	14,135
Mean	174	239	867	1,519	15,700	9,094	7,849	1,961	995	1,861	729	471
Cfsm	0.088	0.121	0.439	0.768	7.94	4.60	3.97	0.992	0.503	0.941	0.369	0.238
In.	0.10	0.13	0.51	0.89	8.56	5.30	4.43	1.14	0.56	1.09	0.43	0.27

Calendar year 1955: Max 37,700 Min 15 Mean 2,826 Cfsm 1.43 In. 19.40
Water year 1955-56: Max 32,900 Min 45 Mean 3,400 Cfsm 1.72 In. 23.41

Peak discharge (base, 24,000 cfs).--Feb. 4 (3 to 4 p.m.) 25,200 cfs (9.35 ft); Feb. 18 (10 a.m.) 35,100 cfs (11.16 ft).

* Discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

Laurel River at Corbin, Ky.

Location.--Lat 36°58'09", long 84°07'38", on left bank 200 ft downstream from bridge on State Highway 312, three-quarters of a mile northwest of Corbin, Whitley County, and 1.0 mile downstream from Lynn Camp Creek.

Drainage area.--201 sq mi (revised).

Records available.--October 1922 to September 1924, July 1942 to September 1956. Prior to October 1953, published as Laurel River near Otas.

Gage.--Water-stage recorder. Datum of gage is 956.05 ft above mean sea level, Sandy Hook datum. Oct. 2, 1922, to Sept. 30, 1924, staff gage at site 200 ft upstream at datum 3.08 ft higher.

Average discharge.--16 years, 344 cfs.

Extremes.--Maximum discharge during year, 9,500 cfs Feb. 18 (gage height, 14.19 ft); no flow for part of Sept. 19.
1922-24, 1942-56: Maximum discharge, 18,600 cfs Jan. 8, 1946 (gage height, 17.94 ft), from rating curve extended above 9,000 cfs by logarithmic plotting; no flow Oct. 5, 6, 1922, Nov. 3, 1923, part of Sept. 19, 1956.
Maximum stage known, 19 ft in 1911, 1913, 1922, present datum, from information by Corps of Engineers.

Remarks.--Records good. Some regulation at low flow by city water-supply reservoir.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 18						Feb. 19 to Sept. 30			
1.07	0.8	1.5	8.5	2.5	102	1.02	0.2	1.5	10
1.1	1.1	1.6	12	3.0	213	1.05	.6	1.7	18
1.15	1.7	1.7	17	4.0	540	1.1	1.4	1.9	32
1.2	2.4	1.8	22	7.0	2,100	1.15	2.2	2.2	62
1.3	4.1	1.9	30	10.0	4,130	1.2	3.2	2.5	102
1.4	6.1	2.2	60	14.0	9,200	1.3	5.2		

Note.--Same as preceding table above 2.5 ft.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.3	2.6	2.8	14	915	364	174	172	59	75	*50	2.4
2	2.4	2.4	*3.9	13	1,080	440	200	255	52	89	37	7.7
3	1.4	2.4	5.9	13	2,520	540	454	746	37	79	42	13
4	1.8	2.4	26	13	3,780	980	990	604	24	39	37	12
5	1.2	2.6	45	11	3,380	773	1,040	348	18	29	23	7.3
6	1.1	2.4	32	10	2,410	552	2,440	255	13	36	16	16
7	1.8	2.6	21	10	2,100	922	3,300	205	9.8	48	11	67
8	5.3	2.4	18	8.8	*1,290	2,190	1,730	162	7.3	39	7.8	42
9	2.2	2.6	28	7.6	683	1,750	800	124	6.1	48	6.3	18
10	1.0	3.4	33	7.4	465	995	536	100	5.0	34	4.4	9.8
11	.8	3.7	28	*8.2	682	596	423	84	3.6	24	3.8	6.1
12	1.0	2.9	22	9.7	925	479	324	70	2.8	16	3.4	*4.2
13	3.8	2.4	19	10	728	786	255	58	2.8	46	2.2	2.8
14	3.7	2.4	15	10	784	3,720	252	48	2.6	425	6.3	1.8
15	2.3	3.5	14	9.7	1,670	3,290	1,640	42	3.8	552	5.4	1.2
16	1.6	3.9	13	10	1,460	1,810	4,050	42	2.2	1,110	3.4	.6
17	1.3	4.9	11	10	2,750	1,360	*2,500	41	1.7	940	2.6	.2
18	1.7	2.4	16	9.1	8,920	1,080	1,270	33	1.8	580	1.6	.4
19	1.7	6.5	21	16	4,540	*830	683	24	4.7	288	1.2	.4
20	1.6	4.9	21	28	2,140	572	465	20	31	151	25	.4
21	1.1	3.2	19	41	1,160	444	342	*17	27	111	21	.4
22	1.1	2.8	17	39	724	364	288	14	15	151	10	.4
23	1.4	6.0	17	43	516	303	345	14	14	79	5.6	.5
24	1.7	6.1	17	41	1,030	324	300	17	15	134	3.4	.5
25	*1.8	4.9	17	39	2,240	321	237	10	50	556	2.4	.5
26	1.8	6.3	16	37	1,790	*255	210	11	37	564	1.7	1.0
27	2.2	6.1	14	31	1,050	226	184	15	*18	357	1.0	1.1
28	2.8	5.5	12	33	719	200	160	18	11	169	1.2	1.6
29	2.8	3.9	11	792	476	267	136	46	6.3	120	3.6	1.1
30	2.4	3.0	14	2,660	-------	258	126	69	10	122	5.0	1.1
31	2.4	----	14	1,820	------	200	-------	50	-------	80	3.2	----
Total	65.5	111.1	563.6	5,804.5	52,927	27,191	25,854	3,714	491.5	7,091	347.5	221.5
Mean	2.11	3.70	18.2	187	1,825	877	862	120	16.4	229	11.2	7.38
Cfsm	0.010	0.018	0.091	0.930	9.08	4.36	4.29	0.597	0.082	1.14	0.056	0.037
In.	0.01	0.02	0.10	1.07	9.79	5.03	4.78	0.69	0.09	1.31	0.06	0.04

Calendar year 1955: Max 7,160 Min 0.8 Mean 288 Cfsm 1.43 In. 19.42
Water year 1955-56: Max 8,920 Min 0.2 Mean 340 Cfsm 1.69 In. 22.99

Peak discharge (base, 4,800 cfs).--Feb. 4 (2:30 p.m.) 4,800 cfs (10.64 ft); Feb. 18 (3:30 p.m.) 9,500 cfs (14.19 ft).
* Discharge measurement made on this day.

Wood Creek near London, Ky.

Location.--Lat 37°09'40", long 84°06'45", on left bank 50 ft downstream from bridge on U. S. Highway 25, 0.2 mile upstream from Peacock Branch, 2.8 miles northwest of London, Laurel County, and about 12 miles upstream from mouth.

Drainage area.--3.89 sq mi (revised).

Records available.--September 1953 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 1,123.50 ft above mean sea level, unadjusted.

Extremes.--Maximum discharge during year, 506 cfs Feb. 17 (gage height, 6.23 ft), from rating curve extended above 160 cfs by logarithmic plotting; minimum, 0.2 cfs Nov. 9-14, 16 (gage height, 1.12 ft).
1953-56: Maximum discharge, that of Feb. 17, 1956; minimum, 0.2 cfs for several days each year; minimum gage height, 1.09 ft Aug. 22, 1954.

Remarks.--Records good.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 16				Feb. 17 to July 5				July 6 to Sept. 30			
1.1	0.2	1.25	1.0	1.15	0.3	1.5	4.8	1.15	0.3	1.4	3.1
1.15	.3	1.3	1.5	1.2	.5	1.7	11	1.2	.5	1.5	5.1
1.2	.6	1.4	2.8	1.25	.9	2.0	27	1.25	.9	1.7	12
				1.3	1.4	3.0	92	1.3	1.4	1.9	22
Note.--Same as following table above 1.4 ft.				1.4	2.8	4.0	185				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	0.3	0.3	0.5	5.7	8.6	4.0	5.6	3.2	8.7	4.7	3.5
2	.4	.3	*.6	.5	20	8.6	6.4	35	1.6	1.2	*4.3	1.2
3	.3	.3	1.6	.5	*36	11	7.1	22	1.5	.8	3.7	.7
4	.3	.3	3.0	.4	47	9.2	19	12	1.3	.7	3.3	.6
5	.3	.3	1.5	.4	22	8.2	9.8	9.2	1.2	*4.7	2.9	.6
6	.3	.3	1.0	.4	35	7.6	50	7.9	1.1	1.8	2.7	6.1
7	1.8	.3	.9	.4	20	26	30	7.0	.9	1.1	2.7	2.1
8	.6	.3	.7	.4	12	34	17	6.2	.9	.9	2.0	1.2
9	.4	.2	.7	.3	9.5	19	12	4.8	.9	1.0	1.6	.8
10	.4	.3	.6	.4	7.9	13	9.8	4.2	.8	.9	1.5	.7
11	.3	.3	.6	.4	13	10	8.2	3.8	.7	.6	1.6	.6
12	.3	.2	.5	*.4	10	11	7.0	3.4	.7	.5	1.3	.6
13	1.4	.2	.5	.3	9.2	15	6.2	3.0	.7	11	1.3	.5
14	.6	.2	.5	.3	13	103	7.2	2.8	.6	*14	1.4	*.4
15	.5	.3	.5	.3	17	35	94	2.8	.6	3.9	1.2	.5
16	.4	.3	.4	.4	14	*27	59	2.6	.5	8.6	1.1	.5
17	.4	.3	.4	.3	103	18	*29	2.2	.5	6.6	.9	.4
18	.4	.3	.6	.3	143	16	17	2.1	1.4	4.7	.9	.4
19	.4	1.1	.6	2.0	44	12	12	2.0	1.8	3.5	.9	.4
20	.3	.4	.5	.7	25	9.8	9.2	1.8	.9	5.8	2.0	.4
21	.3	.3	.5	.6	16	8.9	7.6	1.5	1.1	6.5	1.5	.4
22	.3	.3	.5	.6	12	7.6	7.0	*1.4	.9	2.7	1.2	.4
23	.3	1.9	.5	.6	10	6.8	6.5	1.4	.6	15	1.0	.6
24	.3	.6	.5	.5	35	7.6	5.6	1.3	.5	22	.9	.5
25	.3	.5	.5	.5	39	6.2	4.8	1.2	1.3	18	.9	.4
26	*.3	.4	.5	.5	24	5.6	4.4	1.2	*.5	14	.8	.4
27	.3	.4	.4	.5	16	5.1	4.0	1.3	.4	10	.8	.4
28	.3	.3	.4	.6	12	5.9	3.6	3.6	.4	8.6	.7	.4
29	.3	.3	.4	11	9.5	5.1	3.4	3.6	.4	11	.7	.4
30	.3	.3	.6	33	------	4.4	4.3	2.0	.4	7.8	.7	.4
31	.3	------	.5	5.9	------	4.2	------	1.6	------	5.7	.7	----
Total	13.5	11.8	21.3	63.9	779.8	469.4	465.1	160.5	28.3	202.3	51.9	26.5
Mean	0.44	0.39	0.69	2.06	26.9	15.1	15.5	5.18	0.94	6.53	1.67	0.88
Cfsm	0.113	0.100	0.177	0.530	6.92	3.88	3.98	1.33	0.242	1.68	0.429	0.226
In.	0.13	0.11	0.20	0.61	7.46	4.49	4.45	1.53	0.27	1.93	0.50	0.25

Calendar year 1955: Max 114 Min 0.2 Mean 5.15 Cfsm 1.32 In. 17.97
Water year 1955-56: Max 143 Min 0.2 Mean 6.27 Cfsm 1.61 In. 21.93

Peak discharge (base, 100 cfs).--Feb. 4 (9 a.m.) 100 cfs (3.10 ft); Feb. 17 (11:15 p.m.) 506 cfs (6.23 ft); Mar. 14 (6 a.m.) 264 cfs (4.69 ft); Apr. 6 (10 a.m.) 133 cfs (3.48 ft); Apr. 15 (9 a.m.) 227 cfs (4.42 ft); May 2 (2 p.m.) 166 cfs (3.81 ft).
* Discharge measurement made on this day.

Rockcastle River at Billows, Ky.

Location.--Lat 37°10'05", long 84°17'25", on left bank 200 ft upstream from bridge on State Highway 80 at Billows, Rockcastle County, 1.0 mile downstream from Hawk Creek, 1.0 mile upstream from Pine Creek, and 13 miles west of London.

Drainage area.--604 sq mi (revised).

Records available.--July 1936 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 802.90 ft above mean sea level, datum of 1929. Prior to Nov. 19, 1940, staff gage at same site and datum.

Average discharge.--20 years, 890 cfs.

Extremes.--Maximum discharge during year, 27,800 cfs Feb. 18 (gage height, 33.96 ft); minimum, 7.5 cfs Sept. 30 (gage height, 0.80 ft).
1936-56: Maximum discharge, 46,800 cfs June 29, 1947 (gage height, 45.48 ft); minimum, 1.0 cfs Sept. 19, 20, 1954.
Flood of January 1913 reached a stage of about 40 ft, from information by Corps of Engineers.

Remarks.--Records good.

Revisions.--WSP 953: Drainage area.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 12 to Jan. 9, Jan. 14-21, 28)

0.8	7.5	4.0	680
1.0	20	6.0	1,560
1.4	55	10.0	3,580
2.0	128	15.0	6,950
2.5	220	20.0	11,300
3.0	340	32.0	25,100

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	10	49	44	1,780	1,150	442	568	216	79	254	23
2	34	11	*48	44	5,270	1,120	424	1,070	210	254	*200	23
3	26	12	54	45	13,100	1,150	475	4,460	184	682	157	30
4	17	13	183	43	9,800	1,350	2,440	2,660	137	262	132	23
5	14	14	568	42	8,630	1,370	3,040	1,660	115	238	114	21
6	11	17	385	41	4,700	1,240	4,360	1,170	101	178	99	22
7	12	22	258	40	6,000	1,720	8,660	936	89	138	85	49
8	20	20	196	38	2,880	4,680	3,670	760	77	105	74	45
9	43	19	160	35	*1,800	3,760	2,280	588	68	77	66	26
10	40	18	128	34	1,230	2,240	1,640	490	62	63	57	28
11	26	17	106	33	1,290	1,600	1,270	424	55	57	53	32
12	26	17	87	*33	1,960	1,320	972	358	50	44	49	*26
13	29	17	69	34	1,580	2,100	760	305	45	72	45	22
14	27	17	59	34	1,390	13,200	668	268	48	800	44	18
15	30	19	56	36	5,090	14,200	5,610	238	55	776	43	16
16	31	96	53	37	5,110	*3,700	15,900	230	89	834	40	16
17	28	114	49	37	6,090	3,400	6,320	218	91	1,740	35	16
18	26	93	49	35	24,000	2,710	*2,950	188	90	1,260	32	16
19	25	84	51	38	18,700	2,580	1,980	160	128	600	29	16
20	25	101	54	50	3,770	1,940	1,420	142	128	376	33	15
21	23	115	56	74	2,240	1,490	1,040	127	114	680	60	13
22	22	104	53	106	1,630	1,190	864	*117	176	596	106	11
23	19	100	50	104	1,220	940	852	108	224	464	82	11
24	17	110	59	104	1,910	848	760	97	160	1,630	54	12
25	15	104	51	99	7,540	808	640	88	152	1,690	41	11
26	*13	104	53	100	6,520	680	572	82	*132	1,180	34	12
27	11	88	52	91	2,860	624	522	78	115	800	30	12
28	11	76	49	82	2,210	560	469	83	94	494	26	11
29	11	65	45	250	1,540	564	421	128	72	454	23	10
30	11	57	45	8,240	-------	539	400	450	57	460	22	8.0
31	10	-------	44	7,660	-------	472	-------	250	-------	364	24	-------
Total	679	1,654	3,219	17,683	151,840	75,245	71,821	18,501	3,334	17,447	2,143	594.0
Mean	21.9	55.1	104	570	5,236	2,427	2,394	597	111	563	69.1	19.8
Cfsm	0.036	0.091	0.172	0.944	8.67	4.02	3.96	0.988	0.184	0.932	0.114	0.033
In.	0.04	0.10	0.20	1.09	9.35	4.63	4.42	1.14	0.21	1.07	0.13	0.04

Calendar year 1955: Max 19,500 Min 3.4 Mean 848 Cfsm 1.40 In. 19.05
Water year 1955-56: Max 24,000 Min 8.0 Mean 995 Cfsm 1.65 In. 22.42

Peak discharge (base, 14,000 cfs).--Feb. 3 (8:30 a.m.) 14,100 cfs (22.79 ft); Feb. 18 (10 p.m.) 27,800 cfs (33.96 ft); Mar. 15 (12:45 a.m.) 20,700 cfs (28.55 ft); Apr. 16 (8:30 a.m.) 17,400 cfs (25.85 ft).
* Discharge measurement made on this day.

Buck Creek near Shopville, Ky.

Location.--Lat 37°12'38", long 84°27'52", on right bank on downstream side of bridge on State Highway 461, 0.2 mile downstream from Brushy Creek, 3.7 miles north of Shopville, and 11.5 miles northeast of Somerset, Pulaski County.

Drainage area.--165 sq mi (revised).

Records available.--December 1952 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 835.35 ft above mean sea level, unadjusted. Prior to Dec. 1, 1953, wire-weight gage and crest-stage indicator at same site and datum.

Extremes.--Maximum discharge during year, 10,800 cfs Feb. 18 (gage height, 15.72 ft); no flow Sept. 29, 30.
1952-56: Maximum discharge, that of Feb. 18, 1956; no flow at times each year.

Remarks.--Records good.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 30		Jan. 31 to Sept. 30			
3.0	150	1.5	0	2.3	17
4.0	480	1.6	.2	2.5	39
5.0	980	1.7	.6	2.7	77
8.0	3,380	1.8	1.3	3.0	150
		1.9	2.7	4.0	560
Note.--Same as following table below 3.0 and above 8.0 ft.		2.0	4.5	5.0	1,090
		2.1	7.2	8.0	3,380
		2.2	11	13.0	7,900

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	0.6	*11	13	533	308	105	140	112	2.4	67	1.3
2	5.2	.9	12	13	4,460	434	108	819	65	1.6	52	1.0
3	2.2	1.0	17	13	3,300	358	135	921	43	16	*41	2.0
4	1.4	1.0	52	12	2,880	340	850	376	32	9.1	32	3.5
5	.8	1.0	77	12	1,520	270	402	243	25	16	26	2.1
6	.6	1.0	57	11	2,040	243	2,330	187	21	20	22	5.9
7	8.2	1.1	44	11	1,150	830	1,610	185	16	7.2	20	15
8	32	1.5	36	10	596	1,050	685	145	14	4.3	16	4.8
9	19	1.5	32	9.5	*425	592	443	118	11	3.2	14	2.4
10	10	1.4	27	9.1	312	412	335	98	9.5	2.6	11	1.5
11	6.6	1.4	24	*9.5	470	308	274	84	7.6	1.4	8.7	.8
12	4.3	1.4	22	9.9	371	470	215	71	6.0	.8	7.2	.6
13	4.1	1.6	18	10	274	646	177	61	5.0	150	6.0	*.5
14	4.3	2.0	17	10	731	5,660	201	52	4.1	331	7.2	.3
15	3.9	2.4	16	11	2,240	1,560	3,170	48	3.5	214	7.0	.3
16	4.5	19	15	11	1,080	*1,210	*2,740	53	2.8	256	*4.1	.2
17	4.3	37	14	11	3,960	882	1,000	44	3.0	266	3.3	.1
18	3.7	22	15	10	*7,440	700	596	36	3.9	82	2.8	.1
19	3.0	26	16	13	1,540	515	416	33	2.7	46	2.4	.1
20	2.6	43	17	17	811	376	304	27	2.7	33	7.9	.1
21	2.2	43	17	22	520	304	236	23	13	335	19	.1
22	1.8	31	16	26	389	258	204	20	69	93	19	.1
23	1.3	29	16	26	317	215	208	19	34	1,460	12	.1
24	1.0	23	15	26	1,760	236	180	*17	19	524	6.9	.1
25	.8	24	15	25	3,320	208	153	15	*13	326	4.5	.1
26	.6	22	15	24	1,410	177	138	14	10	242	3.2	.1
27	*.6	19	14	22	690	156	125	13	8.0	187	2.4	.1
28	.6	17	13	22	596	142	110	63	5.5	127	1.6	.1
29	.8	15	13	433	398	171	95	96	4.3	402	1.3	0
30	.6	13	13	6,020	-------	138	95	73	3.2	165	1.4	0
31	.6	----	13	1,250	-------	118	-------	44	-------	100	2.6	----
Total	145.6	402.8	699	8,122.0	45,533	19,287	17,640	4,118	568.8	5,323.6	431.5	43.2
Mean	4.70	13.4	22.5	262	1,570	622	588	133	19.0	172	13.9	1.44
Cfsm	0.028	0.081	0.136	1.59	9.52	3.77	3.56	0.806	0.115	1.04	0.084	0.0087
In.	0.03	0.09	0.16	1.83	10.26	4.35	3.98	0.93	0.13	1.20	0.10	0.01

Calendar year 1955: Max 6,270 Min 0 Mean 215 Cfsm 1.30 In. 17.65
Water year 1955-56: Max 7,440 Min 0 Mean 280 Cfsm 1.70 In. 23.07

Peak discharge (base, 2,600 cfs).--Jan. 30 (1 p.m.) 8,120 cfs (13.22 ft); Feb. 2 (6 p.m.) 6,950 cfs (12.05 ft); Feb. 18 (6:30 a.m.) 10,800 cfs (15.72 ft); Feb. 25 (4 p.m.) 4,240 cfs (8.97 ft); Mar. 14 (2 p.m.) 8,050 cfs (13.15 ft); Apr. 6 (4 p.m.) 3,980 cfs (8.75 ft); Apr. 15 (9 p.m.) 5,150 cfs (10.17 ft); July 23 (7:30 p.m.) 5,270 cfs (10.30 ft).

* Discharge measurement made on this day.

New River at New River, Tenn.

Location.--Lat 36°23'08", long 84°33'17", on left bank at town of New River, Scott County, 700 ft downstream from Phillips Creek, 1,000 ft downstream from bridge on U. S. Highway 27, 1.7 miles downstream from Brimstone Creek, and at mile 8.6.

Drainage area.--382 sq mi (revised).

Records available.--August 1934 to September 1956. Gage-height records collected in this vicinity 1908-52 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 1,092.67 ft above mean sea level, datum of 1929.

Average discharge.--22 years, 701 cfs.

Extremes.--Maximum discharge during year, 21,000 cfs Feb. 18 (gage height, 21.62 ft); minimum, 3.6 cfs Sept. 22, 23 (gage height, 1.33 ft).
1934-56: Maximum discharge, 44,300 cfs Feb. 3, 1939 (gage height, 33.58 ft); no flow for part of each day Aug. 12-15, 1944.
Maximum stage known, 41.2 ft Mar. 23, 1929, on old U. S. Weather Bureau gage 1,200 ft upstream and at datum 3.41 ft higher.

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

Cooperation.--One discharge measurement furnished by Corps of Engineers.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 14				Mar. 15 to Sept. 30			
1.7	18	4.0	685	1.3	2.9	3.0	260
1.9	34	6.0	1,970	1.4	5.3	4.0	695
2.3	78	10.0	5,200	1.6	12	5.0	1,180
2.6	130	14.0	9,500	1.8	24	7.0	2,630
3.0	238	17.0	13,700	2.0	43	10.0	5,200
3.5	435			2.5	123	14.0	9,500

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	647	22	184	156	2,000	914	551	250	620	35	22	a25
2	208	21	178	153	3,420	1,140	909	335	574	28	25	a20
3	112	23	186	151	9,920	3,390	2,090	2,020	348	23	54	a17
4	77	22	4,520	144	8,190	5,810	5,180	2,550	239	51	48	a15
5	58	20	5,020	137	6,300	2,450	3,580	1,160	182	39	65	a14
6	46	19	1,680	130	5,150	1,550	4,190	826	141	45	33	a90
7	67	18	956	128	a3,500	1,190	4,880	744	115	38	23	a150
8	872	18	663	120	a2,500	4,340	2,140	600	94	29	18	a100
9	510	18	848	105	a1,500	2,950	1,240	484	79	29	*14	a70
10	256	18	746	102	a900	1,760	935	412	65	*28	12	a50
11	156	19	560	*108	a1,200	1,220	995	344	58	33	11	a35
12	112	20	440	110	a1,400	1,180	1,190	288	48	43	9.7	a25
13	93	22	*362	110	a1,300	2,260	911	250	40	38	8.1	*20
14	87	26	310	95	a1,200	11,500	767	216	37	127	16	17
15	77	42	273	93	a1,200	4,670	2,180	239	34	304	15	14
16	65	*76	238	93	a2,500	a2,800	9,380	*344	28	385	a12	11
17	55	223	206	93	a7,000	a2,000	*3,370	242	26	1,000	a10	9.3
18	52	314	212	88	a16,000	1,490	1,800	190	25	650	a8.5	7.4
19	51	769	334	107	a7,000	1,100	1,160	165	*21	348	a10	6.2
20	50	1,110	378	163	a4,000	*870	880	143	37	204	a100	5.6
21	45	590	354	206	*2,560	726	708	127	96	150	a80	4.4
22	40	390	334	206	1,660	632	605	113	74	115	a55	3.8
23	35	358	310	225	1,150	551	551	107	56	85	a35	4.2
24	29	840	284	266	1,090	528	456	158	49	68	a25	5.3
25	26	615	256	273	2,750	506	389	150	267	62	a20	8.1
26	*24	515	219	292	3,700	438	348	111	182	54	a17	6.5
27	22	422	189	280	2,090	420	320	96	113	45	a15	5.3
28	22	366	173	338	1,580	384	288	96	75	41	a40	11
29	23	288	158	5,270	1,120	502	256	195	54	33	a55	11
30	23	225	156	13,600	------	731	246	160	39	28	a45	9.3
31	23		173	4,360	------	632	------	130	------	24	a35	
Total	3,963	7,429	20,900	27,702	103,880	60,634	52,495	13,245	3,816	4,182	1,036.3	770.4
Mean	128	248	674	894	3,582	1,956	1,750	427	127	135	33.4	25.7
Cfsm	0.335	0.649	1.76	2.34	9.38	5.12	4.58	1.12	0.332	0.353	0.087	0.067
In.	0.39	0.72	2.03	2.70	10.11	5.90	5.11	1.29	0.37	0.41	0.10	0.08

Calendar year 1955: Max 22,500 Min 2.2 Mean 698 Cfsm 1.83 In. 24.80
Water year 1955-56: Max 16,000 Min 3.8 Mean 820 Cfsm 2.15 In. 29.21

Peak discharge (base, 16,000 cfs).--Feb. 18 (time unknown) 21,000 cfs (21.62 ft); Mar. 14 (2 p.m.) 16,000 cfs (18.63 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 Clear Fork near Robbins.

Clear Fork near Robbins, Tenn.

Location.--Lat 36°23'18", long 84°37'49", on right bank 300 ft downstream from Burnt Mill Bridge, 3.3 miles northwest of Robbins, Scott County, and at mile 3.7.

Drainage area.--272 sq mi (revised).

Records available.--October 1930 to September 1956. Published as Clear Fork River near Robbins October 1951 to September 1954.

Gage.--Water-stage recorder. Datum of gage is 1,081.46 ft above mean sea level, Sandy Hook datum. Prior to Aug. 10, 1940, staff gage at site 300 ft upstream at datum 1.00 ft higher.

Average discharge.--26 years, 453 cfs.

Extremes.--Maximum discharge during year, 13,800 cfs Feb. 18 (gage height, 12.44 ft); minimum, 5.1 cfs Sept. 22, 23 (gage height, 1.02 ft).
1930-56: Maximum discharge, 34,000 cfs Feb. 3, 1939 (gage height, 18.5 ft, from floodmarks, site and datum then in use), from rating curve extended above 14,000 cfs on basis of slope-area determination of peak flow; minimum observed, 0.2 cfs Sept. 19-21, 1932; minimum gage height observed, 0.28 ft Oct. 1-3, 1936, site and datum then in use.

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

Cooperation.--One discharge measurement furnished by Corps of Engineers.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 4				Dec. 5 to Sept. 30			
1.3	21	2.5	285	0.9	2.6	2.0	131
1.6	52	3.0	480	1.0	5.4	3.0	470
1.8	84	4.0	1,070	1.1	9.6	5.0	1,890
2.0	128	6.0	2,700	1.3	23	6.0	2,740
				1.6	54	8.0	5,360
				1.8	87	12.0	12,700

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	672	31	148	148	1,760	769	238	185	132	20	50	49
2	218	28	171	138	2,880	958	1,530	200	253	27	117	40
3	114	27	205	131	6,190	2,970	3,010	416	150	48	97	41
4	76	26	2,250	124	6,050	3,930	3,470	598	112	62	82	32
5	55	25	2,600	117	4,470	1,720	2,270	420	89	41	57	26
6	44	24	1,290	112	3,290	1,310	4,140	328	73	38	44	24
7	51	23	776	109	2,740	1,020	3,660	748	62	29	30	24
8	154	23	543	103	1,670	1,580	1,830	585	50	29	25	57
9	180	23	630	78	1,180	1,460	1,230	430	44	29	*20	44
10	109	23	611	97	881	1,040	895	335	38	*28	17	32
11	77	24	481	97	993	797	888	272	34	29	14	25
12	60	25	393	99	1,080	678	867	226	29	25	14	21
13	56	26	*318	101	986	1,310	644	192	26	23	13	*17
14	64	30	282	82	1,010	4,960	525	170	23	121	11	15
15	61	40	250	97	1,840	3,100	1,080	155	22	380	10	13
16	54	*67	220	91	1,990	1,870	4,410	*200	21	822	8.6	11
17	48	74	195	*82	4,650	1,600	*2,360	168	18	2,420	7.6	9.6
18	44	70	211	82	11,000	1,250	1,490	133	17	839	7.2	8.0
19	42	430	276	91	4,310	972	1,030	107	*16	347	58	7.2
20	44	596	241	138	3,310	*699	748	93	20	208	411	6.0
21	40	348	226	145	*1,950	555	549	82	27	155	262	5.7
22	35	250	220	133	1,370	460	450	73	29	119	155	5.1
23	32	400	214	141	993	388	398	70	38	97	87	5.1
24	29	690	205	168	1,040	384	343	151	27	77	57	5.4
25	26	462	192	175	1,950	398	286	141	241	75	41	5.4
26	*25	411	172	180	2,180	335	259	95	133	68	32	6.8
27	23	344	155	175	1,520	310	238	78	64	57	27	13
28	23	292	143	220	1,310	286	214	70	38	46	39	13
29	26	234	133	3,770	972	293	192	72	28	38	137	11
30	28	177	136	9,590	------	296	180	114	22	31	109	8.6
31	33	---	150	3,560	-------	256	-------	103	------	28	70	---
Total	2,543	5,243	14,037	20,374	75,565	37,954	39,424	7,010	1,876	6,356	2,109.4	580.9
Mean	82.0	175	453	657	2,606	1,224	1,314	226	62.5	205	68.0	19.4
Cfsm	0.301	0.643	1.67	2.42	9.58	4.50	4.83	0.831	0.230	0.754	0.250	0.071
In.	0.35	0.72	1.92	2.79	10.33	5.19	5.39	0.96	0.26	0.87	0.29	0.08

Calendar year 1955: Max 14,100 Min 4.8 Mean 489 Cfsm 1.80 In. 23.95
Water year 1955-56: Max 11,000 Min 5.1 Mean 582 Cfsm 2.14 In. 29.15

Peak discharge (base, 6,500 cfs).--Jan. 30 (7 a.m.) 11,000 cfs (11.23 ft); Feb. 4 (7 p.m.) 7,980 cfs (9.60 ft); Feb. 18 (9:30 a.m.) 13,800 cfs (12.44 ft); Mar. 3 (9:30 p.m.) 6,610 cfs (8.78 ft); Mar. 14 (4 p.m.) 6,800 cfs (8.90 ft); Apr. 6 (7 p.m.) 6,990 cfs (9.02 ft).
* Discharge measurement made on this day.

South Fork Cumberland River near Stearns, Ky.

Location.--Lat 36°37'37", long 84°32'00", on right bank at mouth of Bear Creek, 1,600 ft upstream from Salt Branch and 5.5 miles southwest of Stearns, McCreary County. Records include flow of Bear Creek.

Drainage area.--954 sq mi (revised), includes that of Bear Creek.

Records available.--September 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 764.81 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--14 years, 1,731 cfs.

Extremes.--Maximum discharge during year, 42,200 cfs Feb. 18 (gage height, 29.62 ft); minimum, 34 cfs Sept. 29 (gage height, 1.79 ft).
1942-56: Maximum discharge, 69,600 cfs Feb. 13, 1948 (gage height, 38.50 ft); minimum, 11 cfs Oct. 4, 1948, Sept. 17, 18, 19, 20, 1954; minimum gage height, 1.53 ft Sept. 17, 18, 19, 20, 1954.
Maximum stage known, 52.9 ft in March 1929, from information by local residents.

Remarks.--Records good except those below 50 cfs, which are fair.

Revisions (water years).--WSP 1113: 1946(M).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 3-7, Oct. 10 to Nov. 19, Nov. 29 to Dec. 3, Dec. 15-19, Dec. 21 to Jan. 28)

Oct. 1 to Feb. 18		Feb. 19 to Sept. 30			
2.2	86	1.8	35	10.0	5,500
2.3	108	2.0	62	15.0	12,000
2.5	165	2.2	93	19.0	18,500
		2.5	165	24.0	28,500
Note.--Same as following table above 2.5 ft.		4.0	800	29.0	40,600
		6.0	2,000		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,660	116	544	516	5,610	2,640	1,160	635	392	116	91	165
2	990	116	528	496	7,250	2,530	1,200	670	1,140	133	95	172
3	544	113	556	480	19,200	4,510	6,050	1,400	745	111	200	141
4	392	108	3,100	464	19,700	13,600	8,050	3,990	528	156	190	118
5	304	104	11,300	444	18,000	6,500	9,340	2,570	424	220	193	104
6	244	104	*4,340	436	10,300	4,150	10,800	1,680	348	165	186	109
7	220	104	2,560	428	11,600	*3,260	14,600	1,650	292	135	133	176
8	495	104	1,770	408	6,090	5,600	6,490	1,570	248	162	102	200
9	1,210	99	1,630	368	4,000	6,580	4,000	1,260	212	190	83	236
10	680	99	1,870	348	2,990	4,130	2,940	1,020	182	153	72	176
11	484	104	1,520	376	2,820	3,080	2,460	865	159	118	65	*133
12	380	106	1,250	380	3,590	2,520	2,910	730	138	102	58	107
13	336	108	1,030	388	*3,320	3,560	2,340	625	123	109	52	93
14	328	111	915	356	3,400	15,700	1,890	560	118	147	52	82
15	308	144	820	340	5,780	14,900	2,260	750	106	613	54	74
16	280	182	920	364	5,980	6,530	15,800	750	98	880	48	66
17	248	252	630	344	9,440	5,560	9,200	705	91	3,820	47	59
18	224	452	640	336	38,700	4,360	5,160	548	88	2,530	49	54
19	208	840	740	360	16,700	3,380	*3,510	460	83	1,180	48	48
20	196	2,260	880	420	12,500	2,610	2,620	408	93	675	77	44
21	186	1,490	835	520	7,250	2,020	1,990	364	95	476	576	40
22	176	1,000	800	540	4,670	1,680	1,630	332	141	380	368	38
23	162	885	775	*544	3,360	1,450	1,460	312	162	308	252	36
24	150	1,630	740	580	3,340	1,360	1,280	328	144	264	186	38
25	138	1,600	685	640	6,530	1,370	1,080	*440	396	240	135	38
26	124	1,300	620	650	8,720	1,190	955	380	600	216	107	38
27	111	1,100	568	655	5,450	1,110	870	312	376	182	93	38
28	*106	935	524	680	4,180	1,040	790	280	*256	156	116	36
29	111	780	492	6,630	3,180	1,050	715	268	179	135	121	35
30	122	625	484	33,600	-------	1,330	650	400	135	123	224	42
31	122	-------	500	14,600	-------	1,330	-------	368	-------	*106	200	------
Total	12,239	16,971	44,366	67,691	253,650	130,630	124,200	26,630	8,092	14,301	4,273	2,736
Mean	395	566	1,431	2,184	8,747	4,214	4,140	859	270	461	138	91.2
Cfsm	0.414	0.593	1.50	2.29	9.17	4.42	4.34	0.900	0.283	0.483	0.145	0.096
In.	0.48	0.66	1.73	2.64	9.89	5.09	4.84	1.04	0.32	0.56	0.17	0.11

Calendar year 1955: Max 47,000 Min 29 Mean 1,645 Cfsm 1.72 In. 23.41
Water year 1955-56: Max 38,700 Min 35 Mean 1,928 Cfsm 2.02 In. 27.53

Peak discharge (base, 29,000 cfs).--Jan. 30 (10:30 a.m.) 34,400 cfs (26.50 ft); Feb. 18 (2 p.m.) 42,200 cfs (29.62 ft).
* Discharge measurement made on this day.

Pitman Creek at Somerset, Ky.

Location.--Lat 37°07'05", long 84°35'30", on right bank 0.1 mile downstream from Dry Branch, 0.5 mile upstream from Caney Fork, and 1.9 miles northeast of Somerset, Pulaski County.

Drainage area.--31.3 sq mi (revised).

Records available.--October 1953 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 867.34 ft above mean sea level, datum of 1929 (corrected). Prior to Oct. 28, 1953, staff gage at same site and datum.

Extremes.--Maximum discharge during year, 3,260 cfs Feb. 18 (gage height, 7.19 ft); minimum, 0.2 cfs Sept. 30 (gage height, 0.69 ft).
1953-56: Maximum discharge, 2,430 cfs Mar. 21, 1955; minimum, 0.1 cfs Sept. 2-7, 11-19, 20, 1954, Sept. 19, 1955; minimum gage height, 0.60 ft Sept. 12-19, 20, 1954.

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 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.7	0.3	1.5	22
.8	.8	1.7	42
.9	1.7	2.0	85
1.0	3.2	2.5	210
1.1	5.2	3.0	370
1.2	7.7	4.0	820
1.3	11	5.0	1,220

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	0.9	*1.8	3.6	115	67	18	45	24	1.1	21	0.7
2	1.4	.9	2.8	3.4	876	82	24	168	8.7	2.6	16	.8
3	.8	1.3	4.8	3.2	*510	66	45	99	7.0	5.2	*13	.6
4	.6	1.7	20	3.0	681	54	203	64	5.7	2.0	10	.6
5	.5	1.4	13	2.8	255	48	78	47	4.6	2.0	8.4	.5
6	.5	1.2	9.4	2.7	460	45	484	38	4.0	1.5	7.0	3.0
7	9.1	1.2	7.7	2.7	204	331	222	38	3.4	1.1	6.0	5.5
8	9.0	1.1	7.0	2.4	122	282	120	27	2.8	1.0	5.4	1.2
9	3.6	1.0	6.4	2.1	89	138	82	22	2.7	.8	4.4	.8
10	2.2	1.0	5.4	2.2	70	95	67	20	2.4	.7	3.6	.6
11	1.6	1.0	4.6	*2.6	103	74	55	17	2.0	.5	3.2	.6
12	1.2	.8	4.0	2.7	70	101	43	15	1.7	.5	2.7	.5
13	2.2	.8	3.6	2.7	60	162	36	14	1.6	49	2.4	*.5
14	3.6	.9	3.6	2.4	120	988	58	11	1.6	56	2.6	.4
15	2.4	1.2	3.4	2.4	228	240	854	11	1.4	11	2.7	.4
16	1.7	1.2	a3.0	2.4	162	237	*382	12	1.3	30	2.1	.5
17	1.5	1.2	a2.8	2.4	944	165	183	9.4	1.2	48	1.7	.3
18	1.4	1.2	a3.5	2.2	1,000	148	118	8.7	1.1	15	1.7	.4
19	1.4	5.2	a4.5	3.6	264	95	82	7.4	.9	8.7	2.0	.4
20	1.2	5.7	a3.7	5.7	160	74	66	7.2	.9	8.9	2.7	.3
21	1.0	3.8	a3.0	5.4	105	62	52	6.4	4.5	36	5.0	.3
22	.8	3.0	a3.6	4.8	80	55	47	6.2	3.2	10	3.2	.3
23	.9	6.9	a3.4	4.6	67	46	45	*5.4	2.6	206	2.0	.3
24	.7	6.0	a3.0	4.2	456	52	39	4.8	1.8	89	1.5	.4
25	.7	4.6	a2.8	4.2	398	39	33	4.4	*4.3	62	1.2	.4
26	*.8	3.6	a2.8	4.4	192	35	28	4.2	2.0	30	1.1	.4
27	.7	3.0	a2.7	4.2	155	31	26	4.4	1.4	19	1.0	.4
28	.7	2.6	a2.7	4.4	120	28	22	9.3	1.1	299	.9	.4
29	.8	2.1	2.8	187	79	26	20	11	.8	192	.9	.4
30	1.1	1.8	3.6	870	------	22	23	6.0	.7	58	.8	.4
31	1.0	----	3.6	170	-------	20	--------	5.7	-------	32	.7	------
Total	59.3	68.3	149.0	1,320.4	8,145	3,908	3,555	748.5	101.4	1,278.6	136.9	22.3
Mean	1.91	2.28	4.81	42.6	281	126	118	24.1	3.38	41.2	4.42	0.74
Cfsm	0.061	0.073	0.154	1.36	8.98	4.03	3.77	0.770	0.108	1.32	0.141	0.024
In.	0.07	0.08	0.18	1.57	9.68	4.64	4.22	0.89	0.12	1.52	0.16	0.03

Calendar year 1955: Max 1,040 Min 0.2 Mean 45.5 Cfsm 1.45 In. 19.72
Water year 1955-56: Max 1,000 Min 0.3 Mean 53.3 Cfsm 1.70 In. 23.16

Peak discharge (base, 850 cfs).--Jan. 30 (7 a.m.) 1,800 cfs (6.40 ft); Feb. 2 (1 p.m.) 1,500 cfs (5.71 ft); Feb. 18 (1 a.m.) 2,260 cfs (7.19 ft); Feb. 24 (2:30 p.m.) 1,110 cfs (4.73 ft); Mar. 7 (12 m.) 1,290 cfs (5.18 ft); Mar. 14 (4:30 a.m.) 1,820 cfs (6.45 ft); Apr. 6 (11:30 a.m.) 1,270 cfs (5.12 ft); Apr. 15 (11 a.m.) 1,950 cfs (6.73 ft); July 23 (3 p.m.) 996 cfs (4.44 ft); July 28 (10 p.m.) 2,250 cfs (7.18 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, observer's notes, and records for stations on nearby streams.

Cumberland River near Rowena, Ky.

Location.--Lat 36°53'02", long 85°08'22", on right bank 1.5 miles downstream from Wolf Creek Dam, 1.9 miles (revised) upstream from Blackfish Creek, 1.9 miles (revised) west of Rowena, Russell County, and at mile 459.4.

Drainage area.--5,790 sq mi.

Records available.--November 1939 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 540.81 ft above mean sea level, Sandy Hook datum. Prior to Oct. 24, 1940, staff gage at same site and datum.

Average discharge.--16 years (1940-56), 8,696 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 31,100 cfs Mar. 15 (gage height, 23.47 ft); minimum daily, 68 cfs June 17.
1939-56: Maximum discharge, 162,000 cfs Jan. 9, 1946; maximum gage height, 64.82 ft Jan. 9, 1946; no flow at times.
Maximum stage known, 69.5 ft in March 1826, from profile of Cumberland River.

Remarks.--Records good except those below 300 cfs, which are poor. Flow regulated by Lake Cumberland (see p. 63).

Revisions (water years).--WSP 953: Drainage area. WSP 1336: 1940.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a95	12,100	8,340	2,090	6,980	25,700	27,700	21,900	2,620	470	1,930	170
2	a85	6,500	2,140	a87	8,260	25,900	24,100	21,800	595	10,500	2,040	a102
3	a101	7,740	1,240	a75	9,400	25,900	20,500	21,900	1,260	6,110	2,120	6,340
4	115	12,500	2,260	a75	5,920	25,800	21,200	21,700	10,800	2,950	1,260	11,200
5	828	14,300	13,400	a168	1,110	25,900	22,100	21,700	11,900	6,220	148	11,600
6	1,620	7,890	6,920	a90	6,910	25,900	23,000	21,700	11,900	5,900	5,750	7,100
7	1,740	13,600	5,230	a75	11,300	26,500	22,200	21,700	10,100	479	6,100	8,180
8	3,760	11,100	*5,390	a75	14,000	27,100	21,600	21,700	11,400	a109	*6,950	5,850
9	4,780	12,600	13,100	700	21,100	*26,100	21,400	21,600	3,590	7,920	6,620	1,730
10	3,820	10,100	432	4,900	*21,600	25,700	21,300	20,200	455	*9,210	6,790	12,400
11	6,080	3,350	2,790	1,780	19,700	25,700	21,600	19,700	10,500	825	6,810	12,900
12	6,040	5,280	13,100	*2,070	13,400	25,700	*22,600	18,900	11,400	a164	343	12,000
13	7,380	230	16,800	508	17,400	25,900	22,800	9,400	8,660	a180	9,930	11,900
14	9,370	4,840	14,100	a92	17,700	28,800	22,800	5,460	8,070	a170	7,900	14,100
15	6,070	5,240	11,300	a387	15,300	30,900	22,300	5,200	5,280	a160	7,790	2,200
16	5,050	8,160	5,660	a174	14,800	30,600	21,700	7,680	a511	a150	7,880	176
17	8,460	11,300	3,900	a120	14,400	30,600	21,600	6,370	a68	a140	8,470	9,180
18	9,660	11,300	207	a271	13,900	30,200	22,300	4,820	9,540	a130	417	8,460
19	8,780	10,400	1,560	a130	18,600	30,200	22,300	1,570	8,080	a120	a97	13,500
20	9,120	7,350	213	*a80	24,400	30,400	22,300	162	9,440	a110	3,630	15,000
21	6,480	7,810	3,330	*a75	25,700	30,200	22,300	5,730	8,480	a100	4,580	9,620
22	5,470	6,960	3,560	a75	25,800	30,200	22,300	6,090	8,580	a95	7,530	233
23	380	4,090	217	a75	25,700	30,000	22,400	6,490	5,000	a90	13,600	a102
24	4,660	186	a85	a75	25,900	30,100	22,200	4,380	8,060	a85	9,300	8,500
25	6,730	4,750	a70	a75	26,100	30,300	22,300	5,510	8,920	a80	9,330	6,880
26	5,500	2,580	a425	a75	25,600	30,200	22,300	315	7,920	a75	1,010	10,700
27	11,000	2,640	1,380	a75	25,600	29,900	22,500	a190	11,200	a245	11,100	8,980
28	13,600	13,500	830	a75	25,800	29,900	22,700	2,150	11,000	805	12,300	7,370
29	8,960	12,200	6,920	a146	25,700	29,800	22,800	1,830	6,250	192	9,380	3,480
30	8,220	12,700	7,320	569	--------	30,100	22,800	458	5,490	1,360	9,860	174
31	9,440	--------	16,200	3,320	--------	29,500	--------	2,320	--------	1,250	2,670	--------
Total	173,394	243,296	168,419	18,582	508,080	879,700	672,000	330,625	217,069	56,394	183,635	220,127
Mean	5,593	8,110	5,433	599	17,520	28,380	22,400	10,670	7,236	1,819	5,924	7,338

	Observed				Adjusted†			
Calendar year 1955:	Max 33,900	Min 70	Mean 9,649		Mean 8,754	Cfsm 1.51	In. 20.52	
Water year 1955-56:	Max 30,900	Min 68	Mean 10,030		Mean 10,320	Cfsm 1.78	In. 24.26	

* Discharge measurement made on this day.
† Adjusted for change in contents in Lake Cumberland; records furnished by Corps of Engineers.
a Stage below lowest intake; discharge estimated on basis of 2 discharge measurements and standard recession curve.

East Fork Obey River near Jamestown, Tenn.

Location.--Lat 36°24'58", long 85°01'24", on right bank 200 ft upstream from bridge on State Highway 52, half a mile upstream from Poplar Cove Creek, 5 miles west of Jamestown, Fentress County, and 12½ miles upstream from confluence with West Fork.

Drainage area.--204 sq mi.

Records available.--February 1943 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 680.30 ft above mean sea level, Sandy Hook datum.

Average discharge.--13 years, 386 cfs.

Extremes.--Maximum discharge during year, 14,300 cfs Feb. 18 (gage height, 17.70 ft); minimum, 7.5 cfs Sept. 29, 30 (gage height, 0.70 ft).
1943-56: Maximum discharge, 28,300 cfs Feb. 13, 1948 (gage height, 27.20 ft); minimum, 3.6 cfs Sept. 26-28, 1948; minimum gage height, 0.55 ft Sept. 12-17, 1954.

Remarks.--Records fair.

Revisions (water years).--WSP 1003: 1943. WSP 1276: 1944, 1946(M).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 17				Feb. 18 to Aug. 19				Aug. 20 to Sept. 30	
0.8	11	3.0	485	0.7	8.2	2.0	205	0.7	7.5
1.0	24	4.0	940	.8	11	2.5	330	.8	9.7
1.3	60	5.0	1,530	.9	16	3.0	495	.9	13
1.5	93	11.0	6,500	1.0	24	4.0	940	1.0	20
2.0	195	14.0	9,600	1.2	43	6.0	2,340	1.2	40
2.5	320			1.4	70	11.0	6,500	1.4	70
				1.7	130	14.0	9,600		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	252	18	81	100	1,100	535	218	168	118	14	41	22
2	104	18	83	93	2,320	660	2,910	175	104	28	36	20
3	63	18	95	91	4,190	2,610	2,200	238	74	16	28	17
4	47	17	1,630	86	5,280	2,530	2,850	488	58	20	26	21
5	35	17	1,440	83	2,970	1,140	1,550	397	50	21	21	23
6	29	17	650	79	2,410	772	4,490	330	45	18	19	48
7	29	16	432	78	1,660	643	2,690	308	40	16	18	43
8	44	16	320	73	985	714	1,230	280	37	16	16	29
9	45	15	305	66	722	819	772	240	32	19	*15	22
10	36	15	278	*62	565	539	619	202	28	*18	13	19
11	31	15	232	66	582	478	615	178	27	16	12	*17
12	28	15	*198	68	570	414	571	155	25	15	10	16
13	27	15	175	68	513	535	492	140	33	15	9.6	14
14	28	16	162	62	734	3,140	442	124	29	118	9.6	12
15	26	22	153	59	1,430	1,810	728	132	25	138	12	12
16	25	*25	139	65	1,330	1,280	*2,700	152	21	448	13	11
17	23	28	125	60	3,880	1,120	1,530	*162	19	640	12	9.7
18	23	32	125	54	9,050	835	910	122	18	215	11	9.1
19	23	176	168	62	3,160	660	664	104	*17	118	14	8.7
20	23	272	169	95	*2,880	535	539	92	20	74	56	8.7
21	21	182	158	100	1,440	453	453	80	28	54	46	8.3
22	21	127	151	91	865	397	397	70	29	43	29	8.1
23	20	148	145	93	684	345	360	190	22	37	19	8.1
24	20	390	137	111	750	345	318	88	21	34	16	8.3
25	18	268	129	119	1,400	333	282	82	27	30	13	8.9
26	18	218	115	123	1,330	*305	252	70	24	29	12	8.7
27	*17	177	104	123	890	285	230	62	20	27	11	8.3
28	17	149	97	149	800	265	210	58	18	24	25	7.9
29	17	117	88	4,690	631	270	192	55	16	24	70	7.7
30	18	93	90	8,840	------	258	175	60	16	38	40	7.5
31	18	--	102	2,260	------	232	------	54	------	55	26	---
Total	1,146	2,652	8,274	18,189	55,101	25,057	31,589	5,056	1,041	2,376	699.2	464.0
Mean	37.0	88.4	267	586	1,900	808	1,053	163	34.7	76.6	22.6	15.5
Cfsm	0.181	0.433	1.31	2.87	9.31	3.96	5.16	0.799	0.170	0.375	0.111	0.076
In.	0.21	0.48	1.51	3.31	10.04	4.57	5.76	0.92	0.19	0.43	0.13	0.08

Calendar year 1955: Max 9,560 Min 4.7 Mean 395 Cfsm 1.94 In. 26.27
Water year 1955-56: Max 9,050 Min 7.5 Mean 414 Cfsm 2.03 In. 27.63

Peak discharge (base, 8,000 cfs).--Jan. 30 (1:30 a.m.) 12,300 cfs (16.24 ft); Feb. 4 (3 p.m.) 8,070 cfs (12.57 ft); Feb. 18 (5 a.m.) 14,300 cfs (17.70 ft); Apr. 6 (2:30 p.m.) 9,090 cfs (13.54 ft).
* Discharge measurement made on this day.

West Fork Obey River near Alpine, Tenn.

Location.--Lat 36°23'50", long 85°10'30", on upstream side of left pier of bridge on State Highway 52, a quarter of a mile upstream from Nettlecarrier Creek, 2½ miles east of Alpine, Overton County, and 8 miles east of Livingston.

Drainage area.--108 sq mi (includes 19 sq mi without surface drainage).

Records available.--December 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 684.81 ft above mean sea level, Sandy Hook datum.

Average discharge.--13 years (1943-56), 167 cfs.

Extremes.--Maximum discharge during year, 6,900 cfs Feb. 18 (gage height, 10.67 ft); minimum, 3.5 cfs Sept. 18-21, 27, 28, 30 (gage height, 0.50 ft).
1942-56: Maximum discharge, 15,100 cfs Mar. 21, 1955 (gage height, 16.30 ft); minimum, 2.6 cfs Sept. 13-19, 1954; minimum gage height, 0.41 ft Sept. 9, 10, 19-22, 1951, Sept. 13-19, 1954.

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

Revisions (water years).--WSP 1386: 1943-45(P), 1946, 1948, 1952(P).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 17				Feb. 18 to Sept. 30			
0.7	8.2	1.8	148	0.5	3.5	2.0	190
.8	10	2.5	370	.6	6.5	2.5	320
.9	14	3.0	575	.8	15	3.0	510
1.1	26	6.0	2,250	1.0	26	6.0	2,160
1.4	64	8.0	3,900	1.3	56	8.0	3,860
				1.7	124	9.0	4,960

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	11	23	22	445	190	81	67	56	7.5	9	13
2	39	11	24	22	990	236	1,840	73	31	7	8.5	15
3	22	10	25	22	1,810	1,080	870	86	24	7	7.5	8.4
4	17	10	734	21	2,290	1,000	1,090	90	21	8	6.5	7.3
5	14	10	386	20	1,170	462	546	78	18	11	6	16
6	12	10	175	20	1,530	302	2,000	70	18	10	5.5	28
7	240	10	123	20	835	245	1,040	67	16	9.5	5.0	23
8	66	10	92	20	461	290	470	64	16	9	4.8	16
9	37	9.8	78	19	318	238	290	57	15	9	*4.6	11
10	22	9.8	62	*18	235	207	231	52	15	*9.6	4.3	8.8
11	18	9.8	54	18	272	185	233	49	14	8.4	4.3	*7.3
12	15	9.6	*48	18	259	164	214	44	13	8	4.3	6.5
13	16	9.6	43	18	220	236	188	42	14	9	4.3	5.8
14	16	10	39	17	443	1,760	173	45	13	35	6	5.2
15	16	13	36	16	855	780	344	43	12	40	5.5	4.9
16	15	*20	32	17	735	578	*860	40	12	80	5	4.3
17	14	18	29	16	2,090	474	528	*36	11	50	4.8	4.0
18	13	18	32	16	4,080	344	341	32	11	35	4.8	3.7
19	13	188	33	18	1,520	252	250	30	*9.6	25	4.8	3.5
20	12	126	33	26	*1,300	202	204	29	9.6	18	7	3.5
21	11	69	32	28	596	176	173	27	10	14	12	3.5
22	10	47	30	25	355	155	155	26	10.5	12	10	3.7
23	10	82	30	26	252	136	138	28	11	11	8.4	4.0
24	9.8	126	29	37	276	132	120	28	13	9.5	6.5	4.3
25	*9.6	82	27	41	564	122	108	26	10	10	5.5	4.3
26	9.6	62	25	48	524	*114	100	24	10	9.5	4.9	4.0
27	9.6	52	22	49	355	108	93	23	9.5	9	23	3.5
28	9.8	43	22	70	287	102	86	24	9	8.5	116	3.7
29	12	34	20	2,560	216	97	78	23	8.5	8	41	3.7
30	12	26	22	3,000	------	93	72	20	8	8	20	3.5
31	12	------	22	845	------	86	------	20	------	8.5	13	------
Total	846.4	1,146.6	2,382	7,113	25,283	10,546	12,916	1,363	448.7	504.0	372.8	233.4
Mean	27.3	38.2	76.8	229	872	340	431	44.0	15.0	16.3	12.0	7.78
Cfsm	0.253	0.354	0.711	2.12	8.07	3.15	3.99	0.407	0.139	0.151	0.111	0.072
In.	0.29	0.39	0.82	2.45	8.71	3.63	4.45	0.47	0.15	0.17	0.13	0.08

Calendar year 1955: Max 4,090 Min 3.8 Mean 177 Cfsm 1.64 In. 22.27
Water year 1955-56: Max 4,080 Min 3.5 Mean 173 Cfsm 1.60 In. 21.74

Peak discharge (base, 3,400 cfs).--Jan. 29 (11 p.m.) 4,780 cfs (8.84 ft); Feb. 4 (12 m.) 3,630 cfs (7.73 ft); Feb. 18 (5 a.m.) 6,900 cfs (10.67 ft); Apr. 2 (12 m.) 5,960 cfs (9.88 ft); Apr. 6 (12:30 p.m.) 3,930 cfs (8.06 ft).

* Discharge measurement made on this day.

Note.--No gage-height record June 21 to July 9, July 12 to Aug. 8, Aug. 12-21; discharge estimated on basis of weather records, recorded range in stage, and records for East Fork near Jamestown and Wolf River near Byrdstown.

Wolf River near Byrdstown, Tenn.

Location (revised).--Lat 36°33'40", long 85°04'20", on right bank a quarter of a mile upstream from ford on county road, half a mile upstream from Widow Creek, 3 miles east of Byrdstown, Pickett County, and 5 miles upstream from Lick Creek.

Drainage area.--105 sq mi.

Records available.--June 1943 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 707.54 ft above mean sea level, Sandy Hook datum.

Average discharge.--13 years, 173 cfs.

Extremes.--Maximum discharge during year, 6,970 cfs Feb. 18 (gage height, 7.39 ft); minimum, 6.7 cfs Sept. 30 (gage height, 0.77 ft).
1943-56: Maximum discharge, 14,100 cfs Mar. 22, 1955 (gage height, 9.06 ft); minimum, 2.0 cfs Sept. 17, 1954 (gage height, 0.50 ft).

Remarks.--Records good except those below 10 cfs and those for periods of no gage-height record, which are fair. Some regulation at low flow caused by small mills above station.

Revisions (water years).--WSP 1276: 1943.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 18				Feb. 19 to Sept. 30			
1.1	13	3.0	400	0.7	6.4	2.3	180
1.2	18	3.8	880	.8	8.2	2.6	280
1.5	42	5.0	2,040	1.0	13	3.0	440
1.8	78	6.0	3,460	1.2	23	3.8	880
2.6	240	7.0	5,840	1.5	48	5.0	2,040
				2.0	110	6.0	3,460

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	a16	30	38	440	284	102	88	44	13	14	12
2	80	a16	31	38	896	300	198	100	48	12	13	14
3	53	a15	35	38	1,870	435	328	116	35	12	13	13
4	38	a14	406	36	2,540	600	563	130	31	13	12	12
5	31	a14	355	35	1,210	448	452	120	27	22	12	16
6	25	a14	190	33	1,260	364	2,560	109	25	21	11	33
7	39	a14	142	33	817	392	1,160	*102	24	20	11	43
8	50	14	116	31	500	595	590	97	22	18	10	25
9	38	14	98	29	341	485	416	a90	22	18	*10	18
10	28	14	83	29	255	388	336	a80	20	20	9.6	14
11	24	14	72	30	264	316	284	a75	20	*16	9.6	*12
12	21	13	64	30	243	264	222	68	20	a16	9.1	11
13	27	14	*58	29	215	320	186	64	18	a18	8.8	11
14	27	18	54	27	390	2,140	165	59	18	45	13	10
15	27	19	51	27	976	904	177	200	16	52	12	9.8
16	23	*22	48	27	782	796	525	122	16	271	10	9.6
17	21	21	44	*27	1,720	728	*530	96	15	207	9.6	9.1
18	22	20	45	25	*4,070	550	400	80	14	106	9.6	8.4
19	19	74	53	31	1,860	412	304	68	14	69	9.6	8.2
20	a19	81	53	46	1,870	324	237	59	*14	47	12	8.2
21	a17	59	52	46	803	264	198	52	15	34	19	8.0
22	a17	46	51	42	540	216	177	45	16	29	14	8.0
23	a17	80	50	44	368	183	159	42	22	24	12	8.4
24	a16	98	48	48	665	180	140	40	28	22	10	8.2
25	a16	80	45	48	1,310	159	126	38	20	24	9.6	7.8
26	*a16	66	41	48	880	*146	118	36	20	23	9.1	7.4
27	a16	55	38	45	540	136	109	36	19	21	10	7.2
28	a16	49	35	49	444	128	100	34	16	18	13	7.0
29	a15	40	33	1,840	344	122	95	33	15	16	15	7.0
30	a15	33	37	2,680	------	114	90	32	14	15	18	6.9
31	a16		38	743	------	106	------	32	------	14	13	
Total	951	1,047	2,496	6,272	28,413	12,799	11,047	2,343	648	1,256	361.6	373.2
Mean	30.7	34.9	80.5	202	980	413	368	75.6	21.6	40.5	11.7	12.4
Cfsm	0.292	0.332	0.767	1.92	9.33	3.93	3.50	0.720	0.206	0.386	0.111	0.118
In.	0.34	0.37	0.88	2.22	10.06	4.53	3.91	0.83	0.23	0.44	0.13	0.13

Calendar year 1955: Max 4,910 Min 4.2 Mean 169 Cfsm 1.61 In. 21.90
Water year 1955-56: Max 4,070 Min 6.9 Mean 186 Cfsm 1.77 In. 24.07

Peak discharge (base, 3,600 cfs).--Jan. 29 (7 p.m.) 3,840 cfs (6.19 ft); Feb. 4 (3 p.m.) 4,190 cfs (6.35 ft); Feb. 18 (7 a.m.) 6,970 cfs (7.39 ft); Mar. 14 (11 a.m.) 3,600 cfs (6.07 ft); Apr. 6 (3 p.m.) 5,200 cfs (6.76 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, and records for East Fork Obey River near Jamestown and West Fork Obey River near Alpine.

Obey River below Dale Hollow Dam, Tenn.

Location.--Lat 36°32'12", long 85°27'22", on right bank 1,200 ft downstream from Dale Hollow Dam, 3 miles east of Celina, Clay County, 7.1 miles upstream from mouth, and 24 miles downstream from Wolf River.

Drainage area.--935 sq mi.

Records available.--January 1939 to September 1942 (published as "near Celina"), September 1943 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 500.00 ft above mean sea level, Sandy Hook datum. Jan. 25, 1939, to Sept. 30, 1942, wire-weight gage at site 5.2 miles upstream at datum 12.46 ft higher. Water-stage recorder for station on Cumberland River at Celina is used as a auxiliary gage for this station.

Average discharge.--16 years, 1,307 cfs (unadjusted).

Extremes.--Maximum discharge during year, 6,210 cfs Aug. 13; maximum gage height, 19.83 ft Mar. 14 (backwater from Cumberland River); minimum discharge not determined; minimum gage height, 4.57 ft Jan. 14, 15, 18.
1939-42, 1943-56: Maximum discharge, 41,400 cfs Feb. 4, 1939, site and datum then in use, from rating curve extended above 20,000 cfs; maximum gage height, 43.40 ft Jan. 12, 1946 (backwater from Cumberland River); minimum discharge not determined.

Remarks.--Records good except those for periods of backwater from Cumberland River and those were computed releases for Dale Hollow Reservoir were used, which are fair. Flow completely regulated by Dale Hollow Reservoir, beginning Aug. 30, 1943 (see p. 63). Figures of daily discharge shown only when there is flow from Dale Hollow Reservoir; when not shown, discharge is negligible.

Cooperation.--Records of release from Dale Hollow Reservoir furnished by Corps of Engineers.

Rating tables, water year 1955-56, except periods of backwater from Cumberland River (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 30				Dec. 31 to Sept. 30			
5.1	92	9.0	1,470	5.1	93	9.0	1,420
5.5	170	12.0	3,090	5.5	170	12.0	3,190
6.0	295	15.0	5,320	6.0	295	16.0	6,400
7.0	600			7.0	600		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	2,680	2,760	-	-	c6,040	e144	c960	613	-	-	126
2	-	2,180	-	-	-	c6,050	c799	c1,000	-	2,520	114	-
3	-	1,780	-	626	c568	c2,980	c2,100	c1,080	-	1,030	-	148
4	e8	2,160	-	374	-	c2,020	c4,250	c3,600	e17	1,180	110	1,420
5	758	1,440	2,550	2,720	-	c1,760	c6,000	c1,400	-	2,180	-	1,720
6	112	117	260	-	954	c3,170	e5,810	c1,070	-	868	1,480	556
7	-	2,800	1,140	-	1,420	c6,010	c6,160	*c1,670	-	-	1,450	1,440
8	-	1,440	302	-	3,460	c6,080	c6,000	c4,000	654	-	*1,630	-
9	993	1,890	2,520	1,740	c3,580	c6,100	c5,860	c2,870	1,170	1,060	1,690	114
10	1,540	1,340	-	2,210	c4,130	c6,040	c6,040	c3,860	-	e1,020	1,600	1,380
11	1,360	1,200	-	956	c3,410	c6,010	c5,980	c3,430	1,660	e1,000	1,600	2,330
12	1,280	894	4,580	450	c3,600	c5,710	c6,030	c539	1,400	-	-	1,900
13	1,320	-	4,860	e38	c4,550	c6,070	c6,050	536	925	109	2,480	2,260
14	2,030	-	*c4,930	-	c2,840	c4,650	c6,070	1,260	942	112	361	2,440
15	1,380	*226	c4,990	114	c2,780	c4,400	c6,090	2,960	1,560	112	1,120	277
16	396	1,670	1,960	-	c2,460	c6,000	c6,090	1,320	-	e17	1,020	146
17	1,760	1,500	-	-	e23	c6,030	c6,050	1,360	-	106	1,080	1,350
18	2,030	1,380	-	(*)	-	c6,020	c6,030	1,280	2,670	-	-	1,560
19	1,520	2,070	109	-	c3,600	c6,020	c6,060	-	3,140	112	-	3,750
20	1,550	515	-	-	c2,880	c6,010	c5,380	-	3,900	-	415	3,980
21	925	-	718	-	c4,000	c4,310	c1,390	1,470	3,170	104	214	1,280
22	598	-	1,050	-	c4,440	c1,760	-	2,260	e1,130	-	252	-
23	-	-	-	-	c4,000	c1,120	c1,040	2,640	e1,850	118	2,020	200
24	1,640	-	-	-	c3,400	c1,390	c1,030	2,360	2,100	(*)	1,060	-
25	1,560	-	-	-	c4,760	c3,570	c1,130	1,770	3,600	108	3,580	229
26	1,510	-	106	-	c494	*c3,470	c931	426	2,440	-	378	1,880
27	1,570	631	654	-	c4,920	-	c1,110	-	2,670	-	609	1,280
28	1,700	3,160	292	-	c6,050	-	c1,020	1,750	4,380	-	1,100	220
29	2,080	2,370	2,180	-	c6,020	c816	-	1,580	2,700	116	1,160	210
30	1,830	1,370	2,440	-	------	c3,350	c935	-	e23	-	2,870	-
31	-	----	2,240	-	------	c2,880	------	1,360	----	e54	138	----
Total	31,450	34,813	40,641	9,228	78,339	125,836	111,579	49,811	42,714	11,926	29,531	32,196
Mean	1,015	1,160	1,311	298	2,701	4,059	3,719	1,607	1,424	385	953	1,073

	Observed				Adjusted†				
Calendar year 1955:	Max	6,310	Min	-	Mean	1,766	Mean	1,541	Cfsm 1.65 In. 22.37
Water year 1955-56:	Max	6,160	Min	-	Mean	1,634	Mean	1,710	Cfsm 1.83 In. 24.89

* Discharge measurement made on this day.
† Adjusted for change in contents in Dale Hollow Reservoir.
c Backwater from Cumberland River; discharge computed by using fall as determined by gage-height record at auxiliary gage as a factor.
e Discharge is computed release from Dale Hollow Dam.
Note.--Discharge negligible on days where no discharge is shown.

Cumberland River at Celina, Tenn.

Location.--Lat 36°33'20", long 85°30'47", on right pier of bridge on State Highway 52 at Celina, Clay County, 600 ft downstream from Obey River and at mile 380.8.

Drainage area.--7,320 sq mi, approximately.

Records available.--October 1922 to September 1956. Gage-height records collected at same site, 1903-54, are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 488.97 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 20, 1930, staff gage at site 400 ft downstream at same datum.

Average discharge.--34 years, 11,180 cfs (unadjusted).

Extremes.--Maximum discharge during year, 52,400 cfs Feb. 18; maximum gage height, 28.79 ft Feb. 18; minimum discharge, 220 cfs July 22; minimum gage height, 1.52 ft Oct. 6, July 22.

1922-56: Maximum discharge, 145,000 cfs Dec. 29, 1926; maximum gage height, 57.25 ft Dec. 29, 1926, from graph based on gage readings; minimum discharge observed, 69 cfs Sept. 2, 11-14, 26, 1925 (gage height, 0.20 ft).

Maximum stage known, 59.2 ft in March 1826, from Cumberland River profile.

Remarks.--Records good except those below 700 cfs, which are fair. Flow regulated by Lake Cumberland and Dale Hollow Reservoir (see p. 63).

Revisions (water years).--WSP 893: 1923-38. WSP 1276: 1924.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Rate of change in stage used as a factor Oct. 16, 18, 28, Nov. 1, 5, 6, 12, 21, 29, Dec. 2, 7, 9, 13, 15, 17, 30, 31, Jan. 29, 31, Feb. 2, 5, 7, 9, 17-19, 26, Mar. 7, 9, 14, 15, Apr. 6-8, May 13, 14, June 5, 12, 16, 19, 28, 30, July 3, Aug. 14, 23, 26, 31, Sept. 5, 11, 15, 16, 18-20, 22)

Oct. 1 to Feb. 18				Feb. 19 to Sept. 30			
1.5	200	10.0	11,700	1.5	200	10.0	11,700
2.0	760	20.0	31,600	2.0	720	20.0	31,600
5.0	4,750	27.0	46,300	5.0	4,300	27.0	46,300

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,390	11,900	15,000	14,300	6,030	33,000	31,500	24,500	1,650	5,260	1,270	5,080
2	1,220	13,300	9,410	5,850	16,300	33,100	30,700	24,700	2,770	4,770	1,610	1,730
3	660	9,600	4,550	1,810	25,300	31,200	29,000	27,400	1,820	8,500	2,090	630
4	460	9,660	3,090	830	23,000	29,900	30,800	27,200	720	7,930	2,140	3,800
5	700	13,800	5,190	2,450	15,300	29,500	31,200	25,100	8,070	5,890	2,030	12,000
6	*570	13,900	12,700	1,040	8,000	29,600	40,800	22,400	11,400	6,200	2,340	12,900
7	2,770	11,400	9,120	400	11,100	36,400	39,200	*23,900	11,500	5,640	3,930	9,720
8	5,710	14,100	6,170	370	16,200	42,200	32,000	25,800	10,700	2,820	7,150	8,110
9	4,610	13,600	8,210	1,780	21,100	37,800	29,700	25,600	11,900	1,710	8,080	6,870
10	6,690	13,800	12,200	2,400	25,700	34,900	28,700	25,500	5,180	4,980	8,160	4,130
11	5,520	13,500	4,650	3,580	26,000	33,500	28,500	24,300	3,380	9,510	8,380	12,400
12	6,390	6,030	5,660	3,850	24,000	33,000	28,700	20,800	8,970	3,680	6,920	14,700
13	7,920	5,560	17,100	2,450	21,300	34,000	29,400	18,300	11,700	1,020	5,260	14,700
14	9,180	2,780	*22,100	1,690	22,800	45,600	29,500	11,100	9,520	1,000	6,710	14,400
15	10,500	2,400	19,300	916	24,000	42,100	29,900	8,960	9,560	750	9,040	14,200
16	7,690	6,910	14,600	530	22,900	40,900	32,100	6,680	5,850	1,540	8,720	5,370
17	7,040	9,540	7,850	400	33,700	40,000	30,800	7,960	2,740	1,260	8,770	2,580
18	9,600	12,100	4,250	*288	45,300	39,000	29,600	8,020	2,870	650	8,580	7,010
19	10,800	13,700	2,650	288	32,600	37,800	29,500	5,440	8,770	420	3,690	12,200
20	10,300	12,800	952	288	30,300	37,400	29,100	2,950	11,800	290	2,430	17,200
21	9,920	9,070	2,090	321	31,000	36,600	25,500	2,220	12,100	340	2,890	16,700
22	8,340	8,130	2,380	332	32,300	33,200	23,300	4,740	9,970	240	3,810	10,200
23	6,000	8,140	4,290	310	31,200	32,500	23,900	8,200	10,500	*350	9,380	3,100
24	3,990	5,580	2,720	299	32,900	30,800	24,000	8,820	7,800	*270	12,700	*709
25	4,300	3,090	880	288	36,000	33,900	24,000	6,220	10,100	470	13,700	4,870
26	7,960	3,260	530	288	30,900	34,600	24,000	5,740	11,200	430	9,720	8,720
27	7,720	4,180	993	288	31,800	31,700	24,000	2,500	10,600	360	4,130	11,200
28	11,800	5,340	910	288	33,600	*30,900	24,100	2,080	14,800	290	9,000	9,780
29	14,900	14,100	3,370	13,600	33,300	31,600	23,500	2,100	13,700	340	13,300	8,110
30	11,700	14,400	7,040	33,000	-------	33,200	24,100	2,080	7,230	665	12,600	4,510
31	8,830	-------	11,200	13,300	-------	33,400	-------	2,620	-------	676	10,600	-------
Total	209,180	285,670	221,155	107,824	744,530	‡1,083.3	861,100	413,930	248,870	78,251	209,130	257,629
Mean	6,748	9,522	7,134	3,478	25,670	34,950	28,700	13,350	8,296	2,524	6,746	8,588

	Observed			Adjusted†				
Calendar year 1955:	Max 58,500	Min 460	Mean 12,570	Mean 11,450	Cfsm 1.56	In. 21.23
Water year 1955-56:	Max 45,900	Min 240	Mean 12,900	Mean 13,260	Cfsm 1.81	In. 24.66

* Discharge measurement made on this day.
† Adjusted for change in contents in Lake Cumberland and Dale Hollow Reservoir.
‡ Expressed in thousands.
Note.--Discharge computed from graph based on four times daily radio gage readings Mar. 16-27, Apr. 1 to May 6.

Roaring River near Hilham, Tenn.

Location (revised).--Lat 36°20'27", long 85°25'35", on left bank 700 ft upstream from Cleek Branch, 800 ft downstream from old Crawford Mill site, 0.2 mile downstream from bridge on State Highway 136, 1.4 miles upstream from Flat Creek, 5.0 miles south of Hilham, Overton County, and 13 miles north of Cookeville.

Drainage area.--78.7 sq mi (includes 27.1 sq mi without surface drainage), revised.

Records available.--June 1932 to September 1956.

Gage.--Water-stage recorder. Concrete control since Sept. 21, 1940. Altitude of gage is 770 ft (by barometer). June 23, 1932, to July 24, 1933, staff gage at site 800 ft upstream at different datum. July 25 to Nov. 7, 1933, staff gage 150 ft downstream at different datum: Nov. 8, 1933, to Sept. 23, 1940, staff gage at present site and datum.

Average discharge.--24 years, 107 cfs.

Extremes.--Maximum discharge during year 4,440 cfs Feb. 18 (gage height, 8.28 ft); minimum, 5.8 cfs Aug. 12, 13, Sept. 27-30 (gage height, 0.75 ft).
1932-56: Maximum discharge, 5,550 cfs Mar. 22, 1955 (gage height, 9.39 ft); minimum, 1.9 cfs Oct. 19, 24, 26, 28, Nov. 9, 1940; minimum daily, 2.4 cfs Sept. 12, 13, 15-19, 1954; minimum gage height, 0.16 ft Oct. 5, 1936.

Remarks.--Records good except those below 10 cfs, which are fair. Some diurnal fluctuation at low flow caused by mills above station prior to 1951.

Revisions (water years).--WSP 1033: 1939(M). WSP 1143: 1948. WSP 1276: 1942.

Rating tables, water year 1955-56, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 29				Jan. 30 to Sept. 30			
0.8	7.0	2.0	140	0.7	4.5	2.0	140
1.0	18	3.0	510	.8	7.7	3.0	510
1.3	39	4.0	945	.9	12	4.0	890
1.6	76	5.0	1,500	1.0	17	5.0	1,500
				1.3	37	6.0	2,270
				1.6	73	7.0	3,170

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	9.5	18	20	365	184	69	63	154	12	24	17
2	24	9.5	19	20	626	235	1,340	73	44	16	15	41
3	18	9.0	19	19	996	345	636	78	34	17	13	14
4	15	8.5	228	19	1,430	464	632	70	30	14	10	11
5	13	8.5	174	19	817	333	419	63	27	23	9.4	15
6	11	8.0	94	18	748	260	1,600	59	26	14	8.6	35
7	32	8.5	73	18	548	250	835	*65	25	15	8.1	25
8	37	8.0	58	17	377	300	458	58	23	17	*7.3	18
9	23	8.0	51	15	310	218	345	51	23	18	6.9	13
10	18	8.0	b41	*17	214	184	265	48	22	*15	6.5	11
11	16	8.5	b35	17	230	162	260	45	21	12	6.1	*11
12	14	9.0	*b33	17	182	156	204	42	20	11	6.1	11
13	16	9.0	b30	17	151	203	165	40	19	14	17	10
14	19	12	b30	16	333	1,130	142	41	19	66	26	9.4
15	18	15	29	16	548	601	228	51	18	31	12	9.0
16	17	13	28	16	482	458	*426	40	17	27	9.0	8.1
17	14	16	26	16	1,430	377	337	35	17	21	7.7	7.7
18	14	13	28	15	3,120	345	285	33	*16	16	7.3	7.3
19	14	60	28	19	1,330	265	214	31	16	14	9.6	6.5
20	13	46	25	22	*1,030	200	176	31	16	12	20	6.9
21	11	30	24	20	594	162	147	30	26	12	14	6.9
22	10	25	24	19	408	140	131	29	18	11	9.4	6.9
23	10	40	23	20	329	129	122	30	25	11	8.1	6.9
24	9.0	44	23	21	349	122	110	32	28	22	7.3	7.3
25	*8.0	35	22	22	542	110	99	28	18	40	6.5	6.9
26	8.0	30	21	23	430	*99	91	29	17	15	6.1	6.5
27	8.5	28	20	23	361	94	83	29	16	12	6.1	5.8
28	9.0	24	20	28	315	86	76	27	14	11	94	5.8
29	11	21	19	1,050	218	83	70	27	14	10	42	5.8
30	12	19	20	1,600	----	76	66	26	12	18	21	5.8
31	10	-- --	21	545	------	72	------	25	--- ----	11	16	----
Total	502.5	583.0	1,304	3,724	18,813	7,843	10,031	1,329	775	558	460.1	351.5
Mean	16.2	19.4	42.1	120	649	253	334	42.9	25.8	18.0	14.8	11.7
Cfsm	0.206	0.247	0.535	1.52	8.25	3.21	4.24	0.545	0.328	0.229	0.188	0.149
In.	0.24	0.28	0.62	1.76	8.89	3.71	4.74	0.63	0.37	0.26	0.22	0.17

Calendar year 1955: Max 3,120 Min 4.8 Mean 120 Cfsm 1.52 In. 20.78
Water year 1955-56: Max 3,120 Min 5.8 Mean 126 Cfsm 1.60 In. 21.89

Peak discharge (base, 1,200 cfs).--Jan. 29 (12 p.m.) 2,130 cfs (5.82 ft); Feb. 4 (2:30 p.m.) 2,030 cfs (5.70 ft); Feb. 18 (6 a.m.) 4,440 cfs (8.28 ft); Mar. 14 (11:30 a.m.) 1,660 cfs (5.23 ft); Apr. 2 (2:30 p.m.) 3,400 cfs (7.24 ft); Apr. 6 (11:30 a.m.) 2,740 cfs (6.52 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Calfkiller River below Sparta, Tenn.

Location (revised).--Lat 35°54'31", long 85°28'46", on right bank three-quarters of a mile downstream from abandoned hydroelectric powerplant of Tennessee Valley Authority, 1½ miles downstream from Town Creek, 1½ miles southwest of Sparta, White County, and 9 miles upstream from mouth.

Drainage area.--178 sq mi.

Records available.--August 1940 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 820 ft (from topographic map).

Average discharge.--16 years, 363 cfs.

Extremes.--Maximum discharge during year, 7,970 cfs Feb. 18 (gage height, 16.64 ft); minimum not recorded; minimum daily, 21 cfs Sept. 30.
1940-56: Maximum discharge, 14,600 cfs Jan. 5, 1949 (gage height, 25.80 ft); minimum, 11 cfs Oct. 18, 1953.

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

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.1	18	4.0	1,140
1.3	53	10.0	4,140
1.5	101	16.0	7,550
2.0	280		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	26	78	83	1,300	480	206	195	107	41	83	28
2	80	26	75	78	1,680	476	236	188	101	53	71	27
3	53	26	88	78	3,450	636	604	236	93	60	62	26
4	45	26	1,170	73	3,880	1,340	1,520	436	85	62	57	26
5	43	26	1,660	73	3,620	910	1,360	368	80	75	57	26
6	41	26	690	71	2,830	699	1,630	300	75	66	55	27
7	51	26	416	68	2,270	588	2,200	288	73	57	53	32
8	60	26	296	64	1,400	614	1,150	288	71	55	47	32
9	80	26	236	62	996	596	784	256	66	60	43	30
10	62	26	210	62	766	520	609	217	62	57	39	28
11	49	26	174	62	812	460	520	198	62	57	35	27
12	43	26	156	62	834	412	456	181	55	57	33	*26
13	43	26	139	60	676	460	388	164	55	55	32	24
14	39	33	126	57	572	1,630	348	153	55	57	32	24
15	37	*32	*120	55	512	1,720	820	332	55	105	32	24
16	35	32	116	55	568	1,220	2,940	384	55	*373	*32	24
17	33	35	107	55	2,380	1,140	1,560	292	53	802	32	a24
18	33	37	113	*55	7,330	920	1,000	221	*53	312	33	a22
19	32	152	178	57	3,620	708	726	184	49	160	33	a22
20	*30	272	181	68	2,020	560	568	160	49	107	33	a22
21	28	156	164	88	*1,370	468	468	142	47	96	33	a22
22	27	107	150	80	1,050	*412	416	*136	45	88	32	a22
23	27	182	136	80	812	368	368	129	47	75	30	a22
24	27	416	126	116	758	340	*328	123	49	99	30	a24
25	27	244	116	139	1,000	312	296	123	49	178	28	a30
26	26	178	107	160	870	288	272	116	49	139	28	a28
27	26	146	98	164	744	272	252	107	47	96	27	a26
28	24	123	91	170	650	252	236	101	45	80	30	a24
29	27	101	88	1,880	548	240	221	103	45	88	39	a22
30	27	85	88	*6,670	-------	236	206	103	43	188	33	a21
31	27	---	83	3,230	-------	221	-------	98	-------	116	32	-------
Total	1,280	2,669	7,576	14,075	49,318	19,498	22,688	6,322	1,820	3,914	1,236	762
Mean	41.3	89.0	244	454	1,701	629	756	204	60.7	126	39.9	25.4
Cfsm	0.232	0.500	1.37	2.55	9.56	3.53	4.25	1.15	0.341	0.708	0.224	0.143
In.	0.27	0.56	1.58	2.94	10.30	4.07	4.74	1.32	0.38	0.82	0.26	0.16

Calendar year 1955: Max 9,700 Min 22 Mean 389 Cfsm 2.19 In. 29.68
Water year 1955-56: Max 7,330 Min 21 Mean 358 Cfsm 2.01 In. 27.40

Peak discharge (base, 4,400 cfs).--Jan. 30 (1 p.m.) 7,290 cfs (15.57 ft); Feb. 5 (12:30 a.m.) 5,160 cfs (11.85 ft); Feb. 18 (1 p.m.) 7,970 cfs (16.64 ft).

* Discharge measurement made on this day.

s No gage-height record; discharge estimated on basis of weather records and records for stations on nearby streams.

Barren Fork near Trousdale, Tenn.

Location.--Lat 35°39'55", long 85°53'00", on left bank 15 ft downstream from highway bridge on Trousdale-McMinnville pike, 3¼ miles east of Trousdale, Warren County, 4.5 miles downstream from Bullpen Creek, 6 miles west of McMinnville, and 6.2 miles upstream from Hickory Creek.

Drainage area.--132 sq mi.

Records available.--June 1932 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 925.61 ft above mean sea level, datum of 1929. Prior to May 27, 1940, staff gage at site 200 ft downstream at same datum.

Average discharge.--24 years, 218 cfs.

Extremes.--Maximum discharge during year, 8,580 cfs Jan. 30 (gage height, 10.99 ft); minimum, 46 cfs Sept. 30 (gage height, 1.08 ft).
1932-56: Maximum discharge, 32,000 cfs Feb. 13, 1948 (gage height, 16.99 ft), from rating curve extended above 9,300 cfs on basis of slope-area and contracted-opening determinations of peak flow; minimum, 32 cfs Oct. 13, 1941; minimum gage height, 0.98 ft Sept. 22, 23, 1941.

Remarks.--Records good.

Revisions (water years).--WSP 1083: 1937(M), 1944(M).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 13-15)

Oct. 1 to Jan. 29				Jan. 30 to Sept. 30			
1.1	46	3.0	510	1.09	47	5.0	1,340
1.4	84	5.0	1,340	1.5	110	7.0	2,620
2.1	230	7.0	2,620	2.0	220	8.0	3,550
2.6	375			3.0	510	10.0	6,450

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	56	78	81	623	230	143	143	106	84	74	69
2	59	56	82	81	1,260	319	154	150	94	196	93	64
3	56	57	91	80	*3,560	370	163	213	90	110	78	62
4	55	57	1,390	76	3,580	391	684	218	89	106	70	60
5	54	56	738	76	1,410	285	325	163	87	106	81	59
6	54	57	331	76	1,140	258	1,040	145	85	154	94	87
7	108	57	243	75	731	248	636	139	84	164	68	82
8	105	57	200	74	472	290	334	141	82	99	64	64
9	69	56	171	72	400	248	262	130	80	388	63	59
10	60	59	149	70	340	222	232	120	78	179	60	56
11	57	60	132	72	442	215	245	112	77	108	59	55
12	55	59	120	72	373	196	242	110	77	94	54	54
13	55	168	110	70	288	268	208	106	77	112	59	*54
14	54	*492	*105	70	272	921	192	106	82	94	56	53
15	53	180	99	70	313	496	1,150	207	82	89	55	53
16	53	120	94	70	406	492	1,680	174	90	85	54	50
17	52	130	90	70	1,390	418	492	134	101	*80	*56	49
18	52	96	109	69	3,780	322	346	118	80	80	54	49
19	*52	518	132	*78	976	275	280	108	*75	75	86	48
20	52	216	112	91	*631	245	245	106	75	72	166	48
21	51	142	105	86	439	222	220	105	103	121	89	48
22	51	116	99	80	358	208	206	*103	124	80	68	48
23	52	183	98	82	310	*198	196	118	90	70	62	48
24	52	169	94	96	382	189	*183	137	85	68	59	52
25	52	132	92	99	524	178	174	106	80	66	56	50
26	52	128	89	107	421	172	165	103	78	64	55	48
27	53	110	84	107	322	165	159	99	75	69	101	47
28	55	99	84	134	288	161	152	106	72	78	482	47
29	61	89	81	2,110	250	163	143	108	74	148	120	47
30	57	81	81	5,100	-------	159	141	105	70	126	89	47
31	57	-- --	81	912	-------	150	-------	97	-------	84	75	-------
Total	1,818	3,856	5,564	10,406	25,681	8,674	10,792	4,030	2,542	3,449	2,700	1,657
Mean	58.6	129	179	336	886	280	360	130	84.7	111	87.1	55.2
Cfsm	0.444	0.977	1.36	2.55	6.71	2.12	2.73	0.985	0.642	0.841	0.660	0.418
In.	0.51	1.09	1.57	2.93	7.24	2.44	3.04	1.14	0.72	0.97	0.76	0.47

Calendar year 1955: Max 7,920 Min 50 Mean 233 Cfsm 1.77 In. 23.95
Water year 1955-56: Max 5,100 Min 47 Mean 222 Cfsm 1.68 In. 22.88

Peak discharge (base, 3,200 cfs).--Jan. 30 (1 a.m.) 8,580 cfs (10.99 ft); Feb. 4 (3 p.m.) 5,780 cfs (9.60 ft); Feb. 18 (9 a.m.) 5,620 cfs (9.50 ft).
* Discharge measurement made on this day.

Collins River near McMinnville, Tenn.

Location.--Lat 35°42'32", long 85°43'46", on left bank 10 ft downstream from bridge on U. S. Highway 70S, 1¾ miles downstream from Barren Fork, and 2½ miles northeast of McMinnville, Warren County.

Drainage area.--624 sq mi.

Records available.--October 1924 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 825.78 ft above mean sea level, Sandy Hook datum. Prior to Oct. 16, 1926, chain gage on upstream side of bridge at same datum.

Average discharge.--32 years, 1,119 cfs.

Extremes.--Maximum discharge during year, 21,200 cfs Feb. 4 (gage height, 21.17 ft); minimum, 73 cfs Oct. 28 (gage height, 1.13 ft).
1924-56: Maximum discharge, 75,300 cfs Mar. 23, 1929 (gage height, 39.1 ft), from rating curve extended above 32,000 cfs on basis of slope-area determination of peak flow; minimum, 35 cfs Sept. 21, 1930; minimum gage height, 0.70 ft Oct. 16, 1931.
Maximum stage known, that of Mar. 23, 1929.

Remarks.--Records excellent.

Revisions (water years).--WSP 873: 1929, 1932(M), 1934-35, 1936(M), 1937. WSP 1276: 1925-26, 1928(M), 1933, 1936, 1940.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 15, 17, 19-21, 23-27)

1.0	52	8.0	4,060
1.5	149	12.0	8,510
2.0	274	15.0	12,300
3.0	650	21.0	20,900
5.0	1,750		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	80	331	308	4,500	1,360	638	530	280	179	179	158
2	112	80	318	299	4,430	1,540	626	538	324	2,200	174	142
3	106	80	356	285	14,600	2,020	634	714	386	3,260	172	140
4	106	82	5,750	277	*20,300	2,580	4,180	975	318	926	167	134
5	102	82	9,090	266	14,500	2,420	4,240	975	269	744	163	129
6	100	80	3,910	258	8,780	1,950	4,010	784	234	714	165	160
7	123	80	2,210	250	6,430	1,610	4,880	840	218	1,130	167	418
8	165	80	1,520	239	4,150	1,970	3,150	1,250	201	1,080	167	231
9	167	82	1,150	231	3,050	2,180	2,180	1,220	194	1,840	158	179
10	138	80	905	224	2,450	1,860	1,670	964	184	2,560	149	163
11	127	82	752	221	2,460	1,560	1,440	780	177	2,090	142	151
12	121	82	670	218	2,540	1,320	1,400	662	227	1,190	138	145
13	116	123	598	216	2,210	1,400	1,180	582	198	820	134	*138
14	112	1,590	542	208	1,880	2,880	1,030	522	234	730	131	134
15	108	*915	*498	206	1,700	4,020	3,800	522	250	622	127	129
16	104	490	450	206	2,030	4,970	10,800	558	234	550	*125	123
17	100	666	410	204	4,310	5,680	5,360	450	231	*494	123	116
18	98	526	426	194	15,700	3,700	3,160	390	208	450	123	110
19	94	1,100	578	*204	10,700	2,530	2,270	345	*196	402	129	106
20	94	890	646	214	*5,360	1,910	1,740	315	184	341	158	100
21	*90	606	610	260	3,730	1,510	1,410	291	182	328	147	96
22	90	470	578	260	2,860	1,290	1,200	*280	172	308	140	94
23	86	754	542	258	2,300	*1,110	1,060	371	179	247	136	116
24	82	1,650	510	291	2,090	992	*920	446	271	231	129	123
25	78	1,080	470	402	2,500	880	816	388	252	216	129	106
26	75	752	430	530	2,370	802	744	271	226	204	123	102
27	75	630	390	598	2,030	744	690	255	211	196	121	98
28	80	550	356	650	1,930	698	634	244	206	196	356	96
29	84	466	328	3,110	1,590	686	590	242	196	204	290	92
30	86	386	318	17,600	-------	710	558	242	182	237	174	90
31	84	-------	308	9,170	-------	690	-------	244	-------	198	170	-------
Total	3,219	14,614	35,950	37,857	153,480	59,572	67,010	17,090	6,824	24,887	4,906	4,119
Mean	104	487	1,160	1,221	5,292	1,922	2,234	551	227	803	158	137
Cfsm	0.167	0.780	1.86	1.96	8.48	3.08	3.58	0.883	0.364	1.29	0.253	0.220
In.	0.19	0.87	2.14	2.26	9.15	3.55	3.99	1.02	0.41	1.48	0.29	0.25

Calendar year 1955: Max 35,700 Min 75 Mean 1,276 Cfsm 2.04 In. 27.76
Water year 1955-56: Max 20,300 Min 75 Mean 1,174 Cfsm 1.88 In. 25.60

Peak discharge (base, 11,000 cfs).--Dec. 5 (3 a.m.) 11,500 cfs (14.36 ft); Jan. 30 (1 p.m.) 20,400 cfs (20.70 ft); Feb. 4 (11 p.m.) 21,200 cfs (21.17 ft); Feb. 18 (7 p.m.) 18,800 cfs (19.58 ft); Apr. 16 (9 a.m.) 12,400 cfs (15.02 ft).
* Discharge measurement made on this day.

Caney Fork near Rock Island, Tenn.

Location.--Lat 35°48'26", long 85°37'44", on right bank 180 ft downstream from powerhouse of Tennessee Valley Authority, half a mile downstream from dam at mouth of Collins River, 1 mile northwest of Rock Island, Warren County, 64 miles upstream from Center Hill Dam, and at mile 90.3.

Drainage area.--1,640 sq mi, approximately.

Records available.--November 1911 to March 1924, April 1925 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 650.09 ft above mean sea level, datum of 1929. Nov. 14, 1911, to Mar. 30, 1924, at sites from half a mile upstream to 100 ft downstream from powerplant at various datums. Apr. 12, 1925, to Sept. 9, 1930, at present site at datum 2.00 ft higher.

Average discharge.--37 years (1914-30, 1935-56), 3,197 cfs (unadjusted).

Extremes.--Maximum discharge during year, 54,400 cfs Jan. 30 (gage height, 20.90 ft); minimum, 28 cfs Oct. 5, 6 (gage height, -1.08 ft); minimum daily, 36 cfs Jan. 15.
1911-56: Maximum discharge, 210,000 cfs Mar. 23, 1929 (gage height, 40.6 ft, present datum, from floodmark), from rating curve extended above 110,000 cfs; minimum daily, 25 cfs Aug. 25, 26, Sept. 1-3, 8, 9, 15, 23, 29, 30, Oct. 6, 7, 13, 14, 1951.
Maximum stage known, that of Mar. 23, 1929.

Remarks.--Records good. Flow regulated by Great Falls Lake beginning Dec. 8, 1916 (see p. 63).

Revisions (water years).--WSP 1276: 1934, 1937.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

-1.0	32	5.0	2,610
-.5	62	7.0	4,500
0.0	133	10.0	9,190
.5	225	13.0	17,200
1.0	338	18.0	37,000
2.0	654	20.0	48,500
3.0	1,170		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	272	1,240	770	12,100	4,160	3,340	3,320	834	42	724	42
2	47	225	1,340	661	12,600	4,130	3,310	3,280	41	594	809	42
3	278	212	781	793	40,300	5,660	3,280	3,260	39	2,090	720	42
4	351	216	2,650	988	38,300	6,890	3,340	3,260	990	3,140	43	422
5	357	41	22,200	1,040	30,700	6,060	8,460	3,280	1,130	2,520	43	418
6	373	41	9,600	658	22,800	5,050	11,700	3,280	1,130	2,450	470	368
7	451	208	5,200	674	18,200	4,360	14,100	3,280	901	1,310	509	435
8	42	224	4,030	624	11,000	5,020	8,080	3,310	889	1,320	520	42
9	41	219	3,700	660	7,990	5,900	7,230	3,330	39	690	538	42
10	261	224	3,490	799	6,600	5,150	4,450	3,330	39	1,160	542	539
11	526	262	3,470	1,420	6,750	3,900	4,070	3,330	567	2,530	42	477
12	504	42	3,430	1,320	7,540	3,920	3,990	3,320	667	3,130	42	*426
13	429	42	3,410	1,710	5,800	3,850	3,700	3,290	634	3,000	424	424
14	540	1,010	3,380	270	4,940	10,000	3,500	3,260	868	2,920	386	255
15	41	*1,280	3,360	36	4,590	12,300	12,000	3,240	788	310	367	41
16	41	2,020	3,320	129	5,140	12,800	29,900	3,200	41	*1,100	263	41
17	254	1,550	3,260	165	15,900	14,000	14,900	3,180	41	1,630	260	272
18	280	2,350	3,240	*174	43,700	9,150	8,700	3,180	626	1,760	42	254
19	261	2,850	2,940	212	25,800	6,130	6,340	1,740	661	2,440	42	246
20	293	1,400	1,670	175	15,400	4,920	4,970	40	678	1,950	245	260
21	210	2,240	2,180	39	10,400	4,150	4,180	2,640	622	2,320	358	284
22	41	1,830	2,620	39	8,720	*3,880	3,840	903	512	41	352	39
23	41	2,480	2,530	1,700	5,840	3,580	3,570	*716	41	922	419	41
24	216	3,110	1,530	2,060	5,780	3,500	3,490	594	41	862	522	204
25	214	3,120	817	1,970	7,740	3,490	3,480	1,070	535	636	41	196
26	212	3,110	1,390	1,920	7,420	3,480	3,440	995	899	625	41	300
27	220	3,130	1,490	1,950	6,370	3,460	3,420	41	961	692	313	340
28	220	3,070	1,090	41	5,660	3,430	3,390	978	964	42	308	316
29	42	3,050	1,800	2,170	4,430	3,410	3,370	773	842	41	577	41
30	42	1,540	820	44,300	--------	3,390	3,340	725	40	678	650	41
31	228	--------	804	26,000	--------	3,360	--------	675	--------	667	570	--------
Total	7,103	41,368	102,782	95,467	398,510	172,480	194,880	70,820	17,060	43,612	11,182	6,890
Mean	229	1,379	3,316	3,080	13,740	5,564	6,496	2,285	569	1,407	361	230

	Observed			Adjusted†			
Calendar year 1955:	Max 75,800	Min 41	Mean 3,367	Mean 3,322	Cfsm 2.03	In. 27.49	
Water year 1955-56:	Max 44,300	Min 36	Mean 3,175	Mean 3,175	Cfsm 1.94	In. 26.35	

* Discharge measurement made on this day.
† Adjusted for change in contents in Great Falls Lake.

Falling Water River near Cookeville, Tenn.

Location (revised).--Lat 36°04'38", long 85°31'17", on left bank at old Burgess Mill site, 0.6 mile upstream from Post Oak Creek and 6.0 miles south of Cookeville, Putnam County.

Drainage area.--67.0 sq mi (revised), of which 21.1 sq mi does not contribute directly to surface runoff.

Records available.--June 1932 to September 1956 (discontinued).

Gage.--Staff gage read twice daily. Datum of gage is 893.49 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Corps of Engineers).

Average discharge.--24 years, 112 cfs.

Extremes.--Maximum discharge during year, 3,020 cfs Feb. 18 (gage height, 18.7 ft, from high-water mark on gage section); minimum, 3.6 cfs Sept. 17, 18 (gage height, 2.26 ft).
1932-56: Maximum discharge, 5,420 cfs Mar. 22, 1955 (gage height, 23.65 ft, from high-water mark on gage section); minimum observed, 0.9 cfs Oct. 15, 1936 (gage height, 1.13 ft).
Floods of June 28, 1928, and Mar. 23, 1929, reached stages of 24.1 ft (discharge, 5,630 cfs) and 23.5 ft (discharge, 5,330 cfs), from floodmarks, respectively.

Remarks.--Records fair. Low flow affected by storage in Cookeville City Lake. Some diurnal fluctuation at low flow caused by Burgess Mill, prior to 1953.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 11, 12, Aug. 2-26)

2.3	3.6	4.0	172
2.4	5.9	5.0	288
2.5	9.1	7.0	464
2.6	14	11.0	940
2.8	29	14.0	1,360
3.0	48	16.0	1,860
3.5	98	18.0	2,700

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	6.7	17	18	441	185	64	54	39	14	17	7.3
2	17	6.7	14	18	610	175	202	53	29	199	14	7.0
3	7.6	6.7	15	18	1,180	839	373	57	23	50	14	7.0
4	5.9	7.3	205	18	1,540	1,370	509	60	21	28	13	7.3
5	4.9	7.3	341	18	1,300	546	346	56	18	50	12	7.3
6	4.9	7.3	125	17	955	340	771	61	17	28	13	7.6
7	9.5	7.0	82	15	696	266	752	68	15	23	11	8.0
8	15	7.0	65	15	434	226	360	59	15	16	*10	7.3
9	23	7.0	53	14	317	172	260	55	15	32	9.5	7.3
10	19	7.3	44	*14	257	134	182	46	14	*22	9.1	7.0
11	8.3	7.0	34	14	272	119	158	43	14	15	9.1	7.0
12	7.3	7.3	*32	15	256	110	130	37	13	13	9.1	*6.7
13	7.6	7.3	27	15	195	180	110	34	13	31	9.1	5.1
14	7.3	9.5	26	14	152	977	98	49	11	46	9.1	4.4
15	7.3	*10	24	15	195	621	220	49	11	51	8.7	4.0
16	6.1	11	24	15	256	444	630	*63	12	213	9.1	4.2
17	6.1	12	21	14	609	380	349	55	11	140	9.1	3.6
18	6.1	11	26	14	1,940	309	252	42	*11	63	8.3	4.0
19	6.1	64	25	19	1,260	254	172	35	11	45	8.3	4.2
20	6.1	68	24	18	*918	189	140	32	33	34	8.7	3.8
21	5.9	35	24	22	544	145	109	39	15	27	9.1	3.8
22	5.9	25	23	20	366	120	101	30	18	23	9.1	3.8
23	4.9	48	22	22	290	107	95	24	30	23	9.1	4.0
24	4.9	70	20	25	293	102	84	33	30	23	8.7	4.4
25	*5.6	46	20	28	353	94	77	30	20	27	9.1	4.6
26	4.9	33	20	31	371	*85	70	26	15	23	9.1	4.4
27	4.9	26	18	34	303	82	68	24	11	20	14	4.2
28	4.9	24	17	45	311	76	63	24	13	20	47	4.2
29	7.3	23	18	690	240	77	59	21	7.6	37	11	4.2
30	7.0	20	18	2,290	------	72	57	20	7.0	20	8.0	4.2
31	6.1	------	18	971	------	67	------	21	------	20	7.6	------
Total	271.4	627.4	1,442	4,496	16,854	8,863	6,861	1,300	512.6	1,376	353.0	161.9
Mean	8.75	20.9	46.5	145	581	286	229	41.9	17.1	44.4	11.4	5.40
Cfsm	0.131	0.312	0.694	2.16	8.67	4.27	3.42	0.625	0.255	0.663	0.170	0.081
In.	0.15	0.35	0.80	2.50	9.36	4.92	3.81	0.72	0.28	0.76	0.20	0.09

Calendar year 1955: Max 4,240 Min 4.9 Mean 138 Cfsm 2.06 In. 27.94
Water year 1955-56: Max 2,290 Min 3.6 Mean 118 Cfsm 1.76 In. 23.94

* Discharge measurement made on this day.

Caney Fork below Center Hill Dam, near Lancaster, Tenn.

Location.--Lat 36°06'10", long 85°50'40", on left bank 1.1 miles downstream from Center Hill Dam, 2 miles south of Lancaster, Smith County, 4.7 miles upstream from Indian Creek, 10 miles north of Smithville, and at mile 25.5.

Drainage area.--2,200 sq mi, approximately.

Records available.--May 1944 to September 1956. Prior to October 1950, published as "near Lancaster."

Gage.--Water-stage recorder. Datum of gage is 469.00 ft above mean sea level, Sandy Hook datum (levels by Corps of Engineers). Prior to Oct. 1, 1950, at site 7.7 miles downstream at datum 6.62 ft lower.

Average discharge.--12 years, 4,096 cfs (unadjusted).

Extremes.--Maximum discharge during year, 31,100 cfs Feb. 21; maximum gage height, 31.27 ft Feb. 21; minimum discharge, 42 cfs Aug. 18 (gage height, 5.05 ft).
1944-56: Maximum discharge, 119,000 cfs Feb. 14, 1948; maximum gage height, 53.44 ft Feb. 14, 1948, site and datum then in use; minimum daily discharge, 12 cfs Oct. 1-18, 20-22, 1950.

Remarks.--Records good. Flow regulated by Great Falls Lake and Center Hill Reservoir (see p. 63).

Cooperation.--Two discharge measurements furnished by Corps of Engineers.

Revisions (water years).--WSP 1276: 1951.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Rate of change in stage used as a factor Feb. 6, 20, 23, 24, Mar. 13; backwater from local inflow Jan. 29, 30, Feb. 17-19)

Oct. 1 to Feb. 21				Feb. 22 to Sept. 30			
5.1	46	8.0	1,230	5.0	40	6.0	155
5.5	80	10.0	2,820	5.4	58	6.5	325
5.8	130	15.0	8,000	5.6	78	7.0	590
6.0	180	20.0	14,400				
6.5	360	25.0	21,300	Note.--Same as preceding table above 7.0 ft.			
7.0	590	31.0	30,000				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	248	3,060	6,920	4,560	1,370	11,800	684	3,960	432	49	1,200	50
2	60	580	711	548	440	11,900	3,350	3,960	216	838	1,040	49
3	198	2,700	66	7,760	5,090	12,400	6,310	4,350	50	1,830	50	50
4	80	3,180	1,390	7,840	852	12,500	6,660	7,480	852	4,200	330	152
5	200	528	8,100	4,680	5,040	12,100	6,050	368	969	4,140	43	51
6	76	59	6,700	4,440	16,100	12,100	8,960	186	927	1,090	469	133
7	253	2,760	5,480	6,960	21,200	12,100	12,200	3,540	992	50	461	51
8	66	1,660	4,120	2,700	21,200	12,200	11,400	5,580	2,500	50	474	132
9	60	2,720	7,380	5,260	20,300	12,200	10,900	*5,040	2,070	5,680	415	49
10	1,990	900	5,020	7,420	17,500	12,200	10,800	7,400	72	3,170	458	118
11	971	460	97	5,150	15,200	12,300	10,800	7,800	2,580	2,870	491	1,380
12	1,710	170	7,960	3,620	14,000	12,400	10,700	3,510	1,040	2,840	45	*136
13	2,030	59	8,420	46	13,200	12,400	7,910	3,500	210	3,340	714	1,700
14	2,080	280	8,180	290	11,900	9,780	3,030	3,380	1,120	51	636	2,420
15	1,680	*176	8,220	58	12,100	9,160	461	3,040	1,120	50	676	90
16	58	2,100	8,440	54	12,400	12,800	8,220	4,820	50	317	670	130
17	2,680	2,060	6,560	53	11,800	11,500	9,460	4,810	49	606	648	2,370
18	3,040	2,020	1,170	50	65	10,100	10,100	3,450	763	621	51	1,200
19	2,100	4,320	4,160	54	6,160	10,900	12,800	131	1,440	584	45	7,830
20	1,900	3,140	4,330	56	20,700	9,420	12,700	50	1,700	635	164	1,830
21	598	3,750	6,280	52	29,900	6,400	10,700	2,960	975	1,310	43	1,190
22	173	2,020	6,220	51	29,700	6,880	11,900	3,900	890	804	522	50
23	56	1,920	158	2,430	*27,500	4,940	12,000	4,870	544	1,240	1,700	206
24	481	81	58	388	*21,300	3,950	11,600	5,740	50	1,630	764	50
25	1,150	520	55	168	17,800	7,860	10,100	4,070	2,170	1,580	3,060	225
26	492	59	2,720	807	15,900	7,720	7,590	506	555	1,620	426	1,800
27	593	1,240	4,330	66	14,400	1,420	9,350	1,070	*528	1,280	243	1,350
28	1,000	7,960	3,380	59	13,400	1,600	628	1,460	496	1,120	1,180	272
29	620	6,240	6,340	272	12,000	2,080	3,240	1,640	436	669	412	202
30	2,640	6,680	7,000	1,130	--------	3,590	2,530	50	2,250	56	49	
31	1,220	--------	7,890	4,040	--------	3,540	--------	2,320	--------	1,980	144	--------
Total	30,503	63,402	147,855	71,422	408,337	282,240	243,133	104,922	25,846	48,494	17,628	25,315
Mean	984	2,113	4,770	2,304	14,080	9,105	8,104	3,385	862	1,564	569	844

		Observed					Adjusted†				
Calendar year 1955 :	Max	28,800	Min	49	Mean	4,707	Mean	4,344	Cfsm	1.97	In.	26.81
Water year 1955-56 :	Max	29,900	Min	43	Mean	4,025	Mean	3,960	Cfsm	1.80	In.	24.50

* Discharge measurement made on this day.
† Adjusted for change in contents in Great Falls Lake and Center Hill Reservoir.

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Cumberland River at Carthage, Tenn.

Location.--Lat 36°14'42", long 85°57'15", on left pier of Cordell Hull Bridge on State Highway 25, half a mile south of Carthage, Smith County, 1 mile downstream from Caney Fork, 8½ miles upstream from lock and dam 7, and at mile 308.2.

Drainage area.--10,700 sq mi, approximately.

Records available.--October 1922 to September 1956. Gage-height records collected in this vicinity since 1885 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 437.67 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to May 12, 1936, staff and wire-weight gages at site 1,000 ft downstream at same datum. May 12 to July 17, 1936, wire-weight gage at present site and datum.

Average discharge.--34 years, 16,990 cfs (unadjusted).

Extremes.--Maximum discharge during year, 91,800 cfs Feb. 18, maximum gage height, 33.32 ft Feb. 18; minimum discharge, 523 cfs Jan. 19 (gage height, 8.24 ft).
1922-56: Maximum discharge, 210,000 cfs Dec. 30, 1926; maximum gage height, 59.8 ft Dec. 30, 1926; minimum discharge, 304 cfs Oct. 29, 1940.

Remarks.--Records good except those for periods of reconstructed gage-height record and those below 3,000 cfs, which are fair. Flow regulated by Lake Cumberland, Dale Hollow Reservoir, Great Falls Lake, and Center Hill Reservoir (see p. 63).

Cooperation.--Lock 7 staff-gage readings furnished by Corps of Engineers. Wire-weight-gage readings furnished by U. S. Weather Bureau.

Revisions (water years).--WSP 893: 1923-39. WSP 1276: 1927, 1929(M), 1937(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Rate of change in stage used as a factor Jan. 29-31, Feb. 3, 5, 17-20, 26, Mar. 3, 4, 7, 8, 13-15, 21, 25, Apr. 6-9, 16, 21)

8.2	465	17.0	27,100
8.5	1,000	27.0	66,700
9.0	1,940	35.0	89,300
11.0	6,830		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,400	11,200	20,900	19,300	20,800	45,900	35,200	27,100	5,110	7,500	2,910	10,100
2	5,680	13,300	17,200	13,300	21,200	46,000	34,800	28,700	3,060	6,070	2,450	5,240
3	2,310	14,000	10,300	8,930	44,900	49,900	43,500	30,300	3,260	6,100	2,340	2,490
4	1,410	12,700	12,900	9,880	51,800	48,500	44,500	33,700	2,860	11,300	2,200	1,310
5	811	12,100	15,000	7,700	40,500	45,300	43,600	29,500	2,380	14,000	2,600	4,070
6	718	14,300	17,100	6,330	32,900	43,200	63,400	24,000	9,140	9,590	2,380	*12,200
7	2,810	14,700	19,900	6,970	33,800	48,700	65,600	25,300	12,300	7,280	2,690	12,300
8	6,750	14,000	14,200	6,050	37,000	56,400	52,700	30,400	12,800	6,160	4,590	9,460
9	6,130	g15,500	12,300	3,480	39,500	55,900	44,700	*31,100	13,500	5,500	7,640	8,270
10	6,130	g14,500	16,900	6,990	42,200	51,300	41,800	30,500	12,800	6,770	8,510	6,610
11	7,870	g14,100	14,000	8,900	43,200	47,900	41,200	32,300	7,390	8,070	8,630	5,630
12	6,630	g11,200	8,540	8,210	41,400	46,800	40,700	28,500	6,050	12,200	8,540	13,400
13	8,630	g6,190	15,600	5,680	37,100	48,500	38,700	24,200	11,500	8,240	6,970	14,500
14	10,300	g5,390	26,000	3,130	36,800	64,500	35,900	20,000	12,600	4,090	5,990	15,600
15	11,400	4,870	28,900	2,360	41,100	61,100	31,300	14,900	11,400	1,720	7,870	16,200
16	11,300	3,460	25,800	1,530	41,500	60,200	43,000	12,200	9,680	1,720	9,590	12,800
17	8,150	10,300	20,900	958	55,700	56,800	44,300	13,000	9,080	2,200	9,240	6,550
18	*10,200	12,300	12,100	596	86,600	53,000	42,200	12,700	3,810	2,820	9,240	4,900
19	12,900	17,900	6,830	552	66,800	51,600	43,500	10,300	4,640	1,940	8,100	12,000
20	13,300	20,200	7,450	581	61,400	49,500	43,100	5,910	11,700	1,550	4,260	17,200
21	11,000	16,900	*6,070	664	62,800	45,600	39,200	4,610	13,500	1,650	3,040	18,000
22	10,200	12,700	7,980	664	63,600	42,900	36,300	6,050	13,100	1,720	3,110	15,500
23	8,040	11,400	6,330	1,140	61,700	40,000	35,500	10,300	11,700	*1,270	5,130	9,650
24	5,940	11,300	4,360	2,920	58,500	36,700	35,600	13,900	11,100	1,830	11,100	4,050
25	4,640	7,190	3,240	1,140	59,300	41,000	35,400	13,800	9,300	2,420	14,200	1,640
26	5,260	4,580	2,120	*1,250	54,600	42,700	31,100	8,870	12,300	2,200	14,900	5,030
27	8,360	4,000	5,110	1,650	49,200	39,000	32,600	7,030	12,000	2,270	9,140	10,800
28	8,540	8,930	4,510	*1,060	48,800	*32,700	27,900	4,330	12,100	1,890	6,190	11,900
29	13,300	14,200	5,040	23,300	47,400	32,900	25,300	3,970	15,100	1,520	11,700	9,520
30	14,600	21,000	9,940	66,400	--------	35,100	26,400	3,600	13,400	1,780	13,000	7,920
31	13,900	--------	15,300	*41,700	--------	36,900	--------	3,260	--------	2,560	12,600	--------
Total	247,609	354,390	392,820	263,315	‡1,382.1	‡1,456.5	‡1,199	544,330	288,660	145,930	220,850	284,840
Mean	7,987	11,810	12,670	8,494	47,660	46,980	39,970	17,560	9,622	4,707	7,124	9,495

	Observed						Adjusted†					
Calendar year 1955 :	Max	99,500	Min	718	Mean	18,810	Mean	17,330	Cfsm	1.62	In.	21.98
Water year 1955-56 :	Max	86,600	Min	552	Mean	18,530	Mean	18,950	Cfsm	1.77	In.	24.10

* Discharge measurement made on this day.
† Adjusted for change in contents in Lake Cumberland, Dale Hollow Reservoir, Great Falls Lake, and Center Hill Reservoir.
‡ Expressed in thousands.
g Computed from reconstructed gage-height graph based on daily readings of wire-weight gage, twice-daily readings (5 days per week) of upper lock 7 staff gage, and adjacent record.

Spring Creek near Lebanon, Tenn.

Location.--Lat 36°10'50", long 86°14'35", on downstream end of middle pier of bridge on Eastover Road, half a mile downstream from Black Branch and 3½ miles southeast of Lebanon, Wilson County.

Drainage area.--34 sq mi, approximately.

Records available.--October 1954 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 556.32 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 6,860 cfs Feb. 18 (gage height, 9.55 ft); no flow for several days in July, August, and September.
1954-56: Maximum discharge, 7,980 cfs Mar. 21, 1955 (gage height, 10.13 ft), from rating curve extended above 4,200 cfs on basis of slope-area determination of peak flow; no flow for several days in July, August, and September 1956.

Remarks.--Records fair.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 17				Feb. 18 to Sept. 30			
0.3	0.3	1.2	70	0.1	0	0.8	24
.4	1.5	1.4	112	.2	.1	1.0	51
.5	3.4	2.0	338	.3	.6	1.4	143
.6	7.5	3.0	813	.4	1.9	2.0	380
.7	13	5.0	1,880	.5	4.5	4.0	1,340
.8	20	6.0	2,610	.6	9.0	5.0	1,920
1.0	40			.7	15		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	0.7	8.0	4.7	235	30	8.5	11	1.1	0.03	0	0.5
2	20	.7	10	4.3	713	32	9.0	53	2.1	.02	0	.3
3	12	.7	204	3.9	575	237	118	30	1.5	.01	0	.2
4	8.4	.7	547	3.9	994	80	205	19	.9	.01	.8	.1
5	6.1	.7	83	3.6	206	48	43	12	.6	5.9	.4	.04
6	4.3	.7	48	3.4	204	38	*1,340	11	.5	9.4	.2	.04
7	6.6	*.6	33	3.4	93	220	141	12	.4	2.1	.04	.03
8	17	.5	26	2.9	62	247	71	12	.3	.7	*.03	0
9	8.0	.4	22	2.9	47	82	46	10	.2	6.4	.03	0
10	5.1	.5	17	2.7	38	55	36	9.0	.2	4.9	.04	0
11	3.6	.6	15	*2.7	107	41	34	8.5	**.1	*1.3	.01	0
12	2.7	.7	13	2.9	56	37	27	8.0	.1	.7	0	*0
13	7.9	.7	12	2.9	43	137	22	7.5	.07	.6	0	0
14	10	7.9	10	2.7	292	700	19	11	.1	.5	0	0
15	7.5	21	*9.5	2.7	224	121	125	13	.1	6.4	0	0
16	5.1	12	8.4	2.5	142	171	108	9.0	.1	2.3	0	0
17	3.9	10	7.5	2.5	1,690	93	55	*4.5	.07	1.1	0	0
18	*3.4	8.4	8.4	2.3	1,600	65	38	2.9	.04	.7	0	0
19	2.9	236	10	5.1	392	48	30	2.3	.04	.4	.01	0
20	2.5	43	8.9	11	198	37	*24	1.9	.1	.4	.04	0
21	2.2	26	8.0	8.9	109	31	19	1.5	.1	.1	.02	0
22	1.6	18	7.5	7.5	*73	27	18	1.3	.1	.07	.01	0
23	1.5	66	7.5	9.5	53	23	16	1.1	.07	.04	.01	0
24	1.0	35	7.0	13	118	20	13	1.0	.07	*0	.01	0
25	.7	26	6.5	16	268	17	12	1.0	.2	0	0	*0
26	1.0	20	5.6	21	95	15	11	1.5	.2	0	0	0
27	.9	16	5.1	17	67	*14	10	1.7	.2	0	0	0
28	.7	13	4.7	41	46	12	9.5	1.5	.1	0	21	0
29	.7	10	4.3	2,510	36	12	9.0	4.5	.07	0	8.0	0
30	.7	8.9	4.7	807	-------	10	9.0	2.7	.04	0	2.1	0
31	.7	-------	5.1	128	-------	9.0	-------	1.3	-------	0	.8	------
Total	192.7	585.4	1,166.7	3,651.9	8,776	2,709.0	2,626.0	266.7	9.77	44.08	33.55	1.21
Mean	6.22	19.5	37.6	118	303	87.4	87.5	8.60	0.326	1.42	1.08	0.040
Cfsm	0.183	0.574	1.11	3.47	8.91	2.57	2.57	0.253	0.0096	0.042	0.032	0.0012
In.	0.21	0.64	1.28	3.99	9.60	2.96	2.87	0.29	0.01	0.05	0.04	0.001

Calendar year 1955: Max 3,080 Min 0.03 Mean 61.3 Cfsm 1.80 In. 24.47
Water year 1955-56: Max 2,510 Min 0 Mean 54.8 Cfsm 1.61 In. 21.94

Peak discharge (base, 2,700 cfs).--Jan. 29 (10 a.m.) 5,160 cfs (8.57 ft); Feb. 4 (7 a.m.) 3,460 cfs (7.07 ft); Feb. 18 (1 a.m.) 6,860 cfs (9.55 ft); Apr. 6 (9 a.m.) 5,290 cfs (8.66 ft).
* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.

Drakes Creek above Hendersonville, Tenn.

Location.--Lat 36°22'14", long 86°37'00", on left downstream wing wall of abutment on Long Hollow Pike bridge at Shackle Island, 2 miles downstream from Hogan Branch and 4.5 miles north of Hendersonville, Sumner County.

Drainage area.--19.2 sq mi.

Records available.--October 1954 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 503.06 ft above mean sea level, datum of 1929.

Extremes.--1954-55: Maximum discharge during water year, 2,910 cfs Mar. 21 (gage height, 9.70 ft); minimum, 0.02 cfs many days in September; minimum gage height, 0.90 ft Sept. 12, 14.
1955-56: Maximum discharge during water year, 3,240 cfs Jan. 29 (gage height, 10.32 ft); minimum, 0.02 cfs Sept. 8; minimum gage height, 0.92 ft Sept. 4.

Remarks.--Records fair.

Rating tables, Oct. 1, 1954, to Sept. 30, 1956 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1, 1954, to Mar. 21, 1955

1.0	0.2	2.5	231
1.1	1.4	3.0	391
1.2	4.3	3.5	698
1.3	9.1	4.0	719
1.5	24	4.5	784
1.7	47	6.0	1,300
2.0	104		

Mar. 22, 1955, to Sept. 30, 1956

0.9	0.02	1.3	9.8
1.0	.2	1.5	26
1.1	1.4	1.7	51
1.2	4.8	2.0	104

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			1.4	14	6.5	102	15	7.1	3.9	1.0	0.2	0.04
2			1.0	11	14	68	16	6.6	3.5	.8	.2	.04
3	a3		.8	8.5	11	44	14	6.1	3.1	.6	.2	.03
4			.8	7.0	9.1	33	12	4.8	2.8	.5	.2	.02
5			52	6.5	57	29	11	4.8	2.5	.5	.2	.02
6		a0.6	a20	*6.0	*402	117	49	3.9	2.8	.5	.1	.02
7			a10	5.1	*98	72	36	3.5	2.8	.5	.1	.02
8	a.6		a6	4.3	47	44	26	2.8	4.3	.4	.1	.02
9			a5.5	4.7	32	*32	21	2.8	4.3	.4	.09	.02
10			*5.1	5.1	25	27	19	2.5	10	.3	2.2	.02
11			4.3	6.0	23	23	36	2.5	7.1	.3	1.2	.02
12		*.4	7.1	6.0	17	30	39	4.7	6.1	.3	.4	*.02
13	a1.5	.4	14	5.5	15	24	55	18	4.8	.3	.3	.02
14		.4	10	5.1	16	23	*47	9.2	a4	.3	.3	.02
15		.4	7.5	5.5	16	38	35	6.6	a3	.4	.2	.02
16		.5	5.1	5.1	17	64	29	11	a2.5	.4	.2	.02
17		.8	4.3	4.3	17	62	23	5.7	a2	1.0	3.5	.02
18	a.9	.8	3.9	4.3	16	412	20	4.3	a1.5	.6	4.3	.02
19		.8	3.2	4.3	14	164	17	3.5	a1.2	.5	.5	.02
20		.8	2.9	3.6	14	182	15	3.1	a1	.5	.3	.02
21		.8	2.6	10	*362	1,220	14	12	a.9	.5	.3	.02
22		.8	2.6	24	*332	315	13	82	*.8	.5	.3	.02
23	a.3	.6	2.3	17	87	106	14	*31	.8	.4	.2	.02
24		.8	2.1	*13	49	64	24	19	1.1	.4	*.2	.09
25		.8	1.8	11	34	50	21	14	7.4	1.0	.2	.06
26		.8	1.6	9.1	31	35	16	10	2.8	*.8	.1	.04
27		1.0	1.6	8.0	52	28	13	8.1	2.2	.4	.1	.04
28		1.8	73	6.5	46	23	12	7.1	1.6	.3	.09	.04
29	a.4	2.6	83	6.0	-	21	9.8	7.1	1.4	.3	.09	.04
30		1.6	*34	5.1	-------	17	8.1	5.7	1.0	.3	.06	18
31		---	20	4.3	-------	16	-------	4.8	-------	.3	.04	-------
Total	33.9	23.5	389.5	235.9	1,859.6	3,485	679.9	314.3	93.2	15.3	16.47	18.82
Mean	1.09	0.78	12.6	7.61	66.4	112	22.7	10.1	3.11	0.49	0.531	0.627
Cfsm	0.057	0.041	0.656	0.396	3.46	5.83	1.18	0.526	0.162	0.026	0.028	0.033
In.	0.07	0.05	0.75	0.46	3.60	6.75	1.32	0.61	0.18	0.03	0.03	0.04

Calendar year 1954: Max - Min - Mean - Cfsm - In. -
Water year 1954-55: Max 1,220 Min 0.02 Mean 19.6 Cfsm 1.02 In. 13.89

Peak discharge (base, 1,000 cfs).--Feb. 21 (9 p.m.) 1,180 cfs (5.68 ft); Mar. 21 (4 p.m.) 2,910 cfs (9.70 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 Mill Creek near Antioch.

Drakes Creek above Hendersonville, Tenn.--Continued

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	1.6	1.6	1.2	77	21	8.7	59	3.9	0.3	0.3	0.06
2	1.2	1.9	3.5	1.2	*342	22	12	213	3.5	.3	.3	.04
3	.5	3.8	7.0	1.2	419	19	109	91	3.1	.3	.4	.04
4	.4	1.9	16	1.2	223	16	269	51	2.8	1.0	.2	.04
5	.3	1.4	9.2	1.2	94	15	*76	34	2.5	.8	.2	3.4
6	.3	1.0	6.6	1.2	78	15	*497	26	2.2	.5	.2	1.2
7	.3	*.8	5.2	1.2	55	85	134	49	1.9	.3	.2	.09
8	.2	.8	3.9	1.0	41	106	72	38	1.6	.3	.2	.03
9	.2	.8	3.1	1.0	32	59	47	26	1.4	.2	.1	.03
10	.2	.8	2.8	*.8	25	43	38	21	1.2	.2	.09	.06
11	.2	.8	2.5	1.0	28	32	38	16	1.0	.2	.09	.06
12	.3	.6	1.9	1.2	22	31	29	14	.8	1.4	.06	.06
13	2.4	.6	1.9	1.0	19	47	23	12	6.2	14	.06	.06
14	1.6	3.4	1.9	1.0	26	221	21	9.8	7.7	17	.06	.06
15	1.0	3.1	1.9	1.0	43	98	25	12	5.2	4.8	.06	.06
16	.8	3.1	1.6	1.0	57	98	30	11	4.3	2.8	.06	.06
17	.6	3.9	1.4	.8	*335	74	24	8.1	2.8	1.9	.06	.06
18	*.6	3.1	1.9	.8	483	58	21	6.6	2.2	1.2	.06	.06
19	.6	19	*1.9	5.6	139	42	19	6.1	1.4	1.0	.2	.06
20	.6	8.1	1.9	3.1	98	31	16	5.2	1.2	.6	1.2	*.06
21	.5	4.8	1.6	2.5	65	24	14	*22	1.0	.6	1.0	.04
22	.5	3.5	1.4	2.2	46	21	13	12	1.0	.5	*.4	.04
23	.4	6.3	1.4	2.5	35	18	12	9.6	2.9	.4	.3	.06
24	.4	6.1	1.4	2.2	100	16	12	8.1	2.8	*.3	.2	.06
25	.5	4.8	1.4	2.2	85	14	13	6.6	1.4	.3	.2	.03
26	.5	3.5	1.4	2.2	58	*13	12	8.1	*1.6	.3	.2	.03
27	.5	2.8	1.2	2.2	46	12	11	6.6	1.2	.3	.2	.03
28	.8	2.2	1.2	3.8	33	12	11	6.1	.8	.2	.2	.03
29	2.8	1.9	1.2	*1,050	24	11	11	5.2	.5	.2	.1	.03
30	2.5	1.4	1.4	693	-------	9.8	27	4.3	.4	1.2	.09	.04
31	1.9	-------	1.2	76	-------	9.2	-------	3.5	-------	.5	.06	-------
Total	26.4	97.8	92.5	1,864.5	3,128	1,293.0	1,644.7	800.9	70.5	53.9	7.05	5.98
Mean	0.85	3.26	2.98	60.1	108	41.7	54.8	25.8	2.35	1.74	0.227	0.199
Cfsm	0.044	0.170	0.155	3.13	5.62	2.17	2.85	1.34	0.122	0.091	0.012	0.010
In.	0.05	0.19	0.18	3.61	6.06	2.50	3.19	1.55	0.14	0.10	0.01	0.01

Calendar year 1955: Max 1,220 Min 0.02 Mean 19.0 Cfsm 0.990 In. 13.44
Water year 1955-56: Max 1,050 Min 0.03 Mean 24.8 Cfsm 1.29 In. 17.59

Peak discharge (base, 1,000 cfs).--Jan. 29 (10:30 p.m.) 3,240 cfs (10.32 ft); Feb. 3 (3 a.m.) 1,260 cfs (5.88 ft); Feb. 18 (2 a.m.) 1,250 cfs (5.87 ft); Apr. 3 (12 p.m.) 1,360 cfs (6.15 ft); Apr. 6 (8 a.m.) 1,500 cfs (6.49 ft).

* Discharge measurement made on this day.

Bradley Creek at Lascassas, Tenn.

Location.--Lat 35°55'40", long 86°17'25", on downstream end of county road bridge pier, near midstream, a quarter of a mile south of Lascassas, Rutherford County, 0.4 mile downstream from Cason Branch, $1\frac{3}{4}$ miles upstream from mouth, and 8 miles northeast of Murfreesboro.

Drainage area.--38 sq mi, approximately.

Records available.--October 1954 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 548.24 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 12,300 cfs Feb. 17 (gage height, 10.50 ft), from rating curve extended above 4,700 cfs on basis of slope-area determination at gage height 10.66 ft; minimum, 0.03 cfs Sept. 17-20, 27-30 (gage height, 0.55 ft).
1954-56: Maximum discharge 12,800 cfs Mar. 21, 1955 (gage height, 10.66 ft), from rating curve extended above 4,700 cfs on basis of slope-area determination of peak flow; minimum, 0.03 cfs Sept. 7-10, 1955, Sept. 17-20, 27-30, 1956; minimum gage height, 0.50 ft Sept. 7-10, 1955.

Remarks.--Records fair.

Cooperation.--Two discharge measurements furnished by Corps of Engineers.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.5	0.03	1.4	93
.6	.2	1.7	172
.7	1.2	2.0	310
.8	5.0	3.0	900
.9	12	5.0	2,300
1.0	23	7.0	4,000
1.2	55		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	1.7	12	5.6	328	31	11	8.2	36	15	30	0.5
2	11	1.7	23	5.6	798	36	9.8	6.8	6.2	9.1	20	.3
3	6.8	2.0	43	5.0	732	967	9.8	7.5	4.5	6.2	7.5	.3
4	4.5	2.0	1,310	4.5	1,380	161	43	6.8	3.0	9.9	3.4	.3
5	3.0	2.0	158	4.5	260	87	22	4.5	2.3	42	1.7	.2
6	*2.0	2.3	79	4.5	236	62	*977	4.5	1.7	15	.8	.7
7	270	2.0	53	4.5	145	108	127	6.2	1.2	6.8	.8	.3
8	60	2.0	*36	3.9	93	*183	62	7.5	1.0	3.9	.5	.1
9	23	2.0	30	3.4	68	77	39	*3.9	.8	3.4	.3	.1
10	12	2.3	23	*3.0	51	57	30	3.0	.7	2.0	.2	.09
11	8.2	2.6	19	3.4	109	44	27	3.0	*.6	1.0	.1	.09
12	6.2	2.3	16	3.9	68	39	19	2.0	.5	1.0	.09	.09
13	6.8	4.1	14	3.4	53	164	16	1.4	.7	1.4	.09	.07
14	6.8	780	13	3.4	56	796	14	2.4	1.2	1.4	.09	.06
15	5.0	119	11	3.0	170	129	276	17	.7	3.6	*.07	.05
16	4.5	62	9.8	3.0	139	189	153	11	1.0	15	.06	.05
17	3.4	42	8.9	2.6	3,410	100	73	5.0	.7	7.5	.09	.03
18	3.0	32	11	2.6	1,640	69	48	3.4	.7	3.9	.1	.03
19	2.6	551	12	7.2	305	51	34	2.6	.5	2.3	130	.03
20	2.3	87	11	15	171	39	25	1.7	.4	1.7	104	*.05
21	1.7	*48	11	12	104	*34	20	1.7	18	.8	11	.05
22	1.4	33	9.8	9.8	75	28	16	1.4	7.4	.5	6.2	.06
23	1.2	245	9.8	17	57	24	14	1.2	4.5	.3	3.9	.05
24	1.4	77	8.9	31	75	20	12	1.2	4.5	*.3	2.3	.06
25	1.4	53	8.2	46	151	18	*11	1.2	2.6	.2	1.0	.05
26	1.4	39	7.5	48	77	16	8.9	5.4	1.7	.09	.7	.05
27	1.4	30	6.8	36	60	15	8.2	5.8	1.4	.07	.5	.05
28	1.7	23	6.2	37	44	14	6.2	5.2	1.2	.07	.8	.03
29	2.0	17	6.2	2,840	36	14	5.6	66	1.0	5.5	2.0	.03
30	1.7	14	6.2	982	-------	12	6.2	21	.8	5.0	1.7	.03
31	1.7	------	6.2	203	-------	11	-------	7.5	-------	2.3	.8	-------
Total	488.1	2,281.0	1,979.5	4,353.8	10,891	3,595	2,123.7	226.0	107.5	167.23	330.79	3.90
Mean	15.7	76.0	63.9	140	376	116	70.8	7.29	3.58	5.39	10.7	0.130
Cfsm	0.413	2.00	1.68	3.68	9.89	3.05	1.86	0.192	0.094	0.142	0.282	0.0034
In.	0.48	2.23	1.94	4.26	10.66	3.52	2.08	0.22	0.11	0.16	0.32	0.004

Calendar year 1955: Max 3,660 Min 0.03 Mean 71.9 Cfsm 1.89 In. 25.72
Water year 1955-56: Max 3,410 Min 0.03 Mean 72.5 Cfsm 1.91 In. 25.98

Peak discharge (base, 3,000 cfs).--Nov. 14 (9 a.m.) 3,700 cfs (6.75 ft); Dec. 4 (6:30 a.m.) 5,380 cfs (7.83 ft); Jan. 29 (10 a.m.) 7,240 cfs (8.63 ft); Feb. 4 (7 a.m.) 5,100 cfs (7.69 ft); Feb. 17 (3:30 p.m.) 12,300 cfs (10.50 ft); Mar. 3 (11 a.m.) 3,930 cfs (6.94 ft); Apr. 6 (9 a.m.) 4,660 cfs (7.45 ft).
* Discharge measurement made on this day.

East Fork Stones River near Lascassas, Tenn.

Location.--Lat 35°55'10", long 86°20'00", at downstream end of right pier of highway bridge, 2½ miles southwest of Lascassas, Rutherford County, 3¼ miles downstream from Bradley Creek, 6 miles northeast of Murfreesboro, and 15 miles upstream from confluence with West Fork.

Drainage area.--264 sq mi.

Records available.--February 1951 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 507.88 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--5 years, 421 cfs.

Extremes.--Maximum discharge during year, 17,200 cfs Feb. 18 (gage height, 29.34 ft); minimum, 9.0 cfs Sept. 28, 29; minimum gage height, 2.65 ft Oct. 29; minimum daily discharge, 9.7 cfs Sept. 29.
1951-56: Maximum discharge, 21,300 cfs Mar. 22, 1955 (gage height, 34.07 ft); minimum, 0.2 cfs Oct. 23, 1953 (gage height, 2.22 ft); minimum daily, 0.4 cfs Aug. 31, 1953.

Remarks.--Records good except those for Sept. 11-30, which are fair. Frequent diurnal fluctuations at low flow caused by small mill above station.

Cooperation.--One discharge measurment furnished by Corps of Engineers.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 16-30)

Oct. 1 to Feb. 17				Feb. 18 to Sept. 30			
2.6	10	5.0	420	2.8	9.0	5.0	401
2.8	19	7.0	1,070	3.0	24	7.0	1,080
3.0	35	11.0	2,920	3.3	55	11.0	2,920
3.4	82	22.0	11,100	4.0	163	24.0	12,700
4.0	180			4.5	263		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	282	21	104	50	1,680	245	99	99	59	86	75	54
2	97	19	133	47	3,780	245	95	93	50	55	143	43
3	56	18	180	46	5,760	1,790	115	96	43	41	78	36
4	44	16	5,560	45	*7,580	956	602	123	35	38	55	30
5	30	16	1,690	43	2,720	572	395	101	34	117	45	29
6	*25	16	753	42	1,980	434	3,710	115	32	196	36	226
7	946	15	487	42	1,330	407	1,340	347	30	96	31	434
8	754	14	*331	39	899	872	708	216	29	72	28	128
9	218	13	256	36	692	530	453	*130	25	291	23	69
10	118	14	196	*36	529	404	341	98	25	189	22	49
11	75	14	162	38	858	333	305	82	23	90	18	41
12	56	16	136	38	673	282	259	72	*24	62	17	35
13	49	16	118	38	513	433	214	67	24	62	16	30
14	47	3,070	106	36	420	4,380	187	67	30	65	15	29
15	41	964	94	35	993	1,390	1,080	348	29	55	*15	28
16	34	402	82	35	1,020	1,300	1,890	263	31	78	13	23
17	32	306	74	35	9,200	960	830	145	32	72	13	21
18	29	206	75	34	12,500	718	543	99	28	89	13	21
19	26	3,140	97	42	2,470	530	383	81	28	64	36	18
20	24	852	88	102	1,450	401	295	68	25	42	558	*16
21	21	*426	82	97	946	*313	239	62	229	33	455	15
22	19	270	78	78	700	268	208	55	318	28	117	15
23	18	1,110	74	94	537	235	187	54	101	50	67	15
24	18	692	69	210	505	206	165	55	272	*40	45	12
25	15	420	67	277	621	181	*145	55	95	30	34	12
26	14	337	63	396	521	163	130	67	63	25	29	15
27	14	260	56	301	416	154	120	54	49	47	22	12
28	14	200	54	329	359	142	110	48	40	48	1,010	14
29	13	155	52	8,470	285	131	99	71	33	286	274	9.7
30	18	123	52	11,100	-------	117	96	92	30	349	118	11
31	21	-------	52	1,990	-------	107	-------	47	-------	107	72	-------
Total	3,168	13,141	11,421	24,201	61,937	19,199	15,343	3,370	1,862	2,901	3,493	1,488.7
Mean	102	438	368	781	2,136	619	511	109	62.1	93.6	113	49.6
Cfsm	0.386	1.66	1.39	2.96	8.09	2.34	1.94	0.413	0.235	0.355	0.428	0.188
In.	0.45	1.85	1.61	3.41	8.73	2.70	2.16	0.47	0.26	0.41	0.49	0.21

Calendar year 1955: Max 15,400 Min 6.4 Mean 462 Cfsm 1.75 In. 23.75
Water year 1955-56: Max 12,500 Min 9.7 Mean 441 Cfsm 1.67 In. 22.75

Peak discharge (base, 7,000 cfs).--Dec. 4 (9 a.m.) 9,280 cfs (19.72 ft); Jan. 30 (5:30 a.m.) 15,300 cfs (27.06 ft); Feb. 4 (11:30 a.m.) 11,400 cfs (22.41 ft); Feb. 18 (2 a.m.) 17,200 cfs (29.34 ft); Apr. 6 (11:30 a.m.) 7,680 cfs (17.72 ft).
* Discharge measurement made on this day.

West Fork Stones River near Murfreesboro, Tenn.

Location.--Lat 35°49'50", long 86°25'03", on downstream end of second pier from right abutment of bridge on State Highway 99, 0.8 mile downstream from Middle Fork and 6.8 miles southwest of Murfreesboro, Rutherford County.

Drainage area.--119 sq mi.

Records available.--June 1932 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 567.02 ft above mean sea level, datum of 1929. Prior to July 1, 1934, staff gage at same site and datum.

Average discharge.--24 years, 214 cfs.

Extremes.--Maximum discharge recorded during year, 10,900 cfs Jan. 30 (gage height, 15.06 ft), but may have been greater on Feb. 17 or 18; minimum, 1.7 cfs Aug. 19 (gage height, 1.04 ft), caused by diversion for irrigation.

1932-56: Maximum discharge, 38,000 cfs Feb. 13, 1948 (gage height, 22.73 ft, from floodmarks), from rating curve extended above 13,000 cfs on basis of contracted-opening determinations at gage heights 21.23 and 22.73 ft; no flow for part of each day Oct. 27, 28, 30, 31, 1952, caused by diversion for irrigation, and Sept. 18-20, 1954; minimum gage height, 0.56 ft Oct. 9, 1935, Oct. 6, 7, 1940.

Maximum stage known, 35.0 ft in March 1902.

Remarks.--Records fair except those for period of no gage-height record and those below 5 cfs, which are poor. Some diversion for irrigation.

Cooperation.--Two discharge measurements furnished by Corps of Engineers.

Revisions (water years).--WSP 783: 1932-34.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 21-23, 27, 28, Dec. 3, 4, Dec. 7 to Jan. 7, Jan. 20-28, Mar. 21 to Apr. 6, Apr. 9-15, 19-24)

Oct. 1 to Jan. 29

1.1	2.5	3.0	195
1.2	4.0	4.0	800
1.3	6.2	9.0	3,400
1.5	13	11.0	4,900
1.8	33	14.0	8,600
2.7	135		

Jan. 30 to Sept. 30

1.0	1.3	1.4	8.3
1.1	2.4	1.6	18
1.2	3.6	1.8	33
1.3	5.5		

Note.--Same as preceding table above 1.8 ft.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	4.4	54	31	880	150	64	43	38	3.7	68	17
2	12	4.7	65	29	2,250	160	64	43	29	3.7	81	15
3	11	4.9	76	26	3,000	270	74	55	24	5.1	27	11
4	8.9	4.7	2,400	24	*4,000	230	274	70	21	12	22	9.2
5	8.0	4.4	546	22	1,000	200	140	54	18	421	18	7.7
6	*7.1	4.2	222	20	700	180	1,380	217	16	155	15	162
7	76	4.0	168	19	500	170	401	160	14	87	11	203
8	108	3.8	*152	17	400	400	182	120	12	32	9.6	66
9	48	3.8	141	16	350	310	147	*88	11	439	8.3	33
10	30	4.0	124	*15	300	250	134	72	9.6	108	7.4	21
11	22	3.8	114	14	550	210	132	62	9.2	55	6.6	16
12	17	3.7	102	14	450	190	120	53	8.7	31	5.8	14
13	16	3.8	93	14	350	300	102	45	8.3	25	4.9	10
14	12	216	83	13	250	2,000	93	79	7.7	24	4.3	8.7
15	11	114	75	13	500	1,000	501	356	7.4	19	*3.4	7.4
16	9.2	70	68	12	800	600	622	138	7.4	24	2.5	6.6
17	8.0	61	61	11	5,000	500	192	102	6.9	22	2.6	5.8
18	7.4	47	66	11	7,000	350	146	83	6.3	26	2.8	5.3
19	6.8	1,130	86	15	1,500	230	128	70	*5.5	15	5.1	4.9
20	6.2	183	81	19	700	180	113	59	5.1	11	15	*4.9
21	5.8	*117	76	37	500	*152	97	228	6.3	9.6	13	4.1
22	5.3	92	71	35	400	144	89	*210	7.7	8.3	14	3.5
23	5.1	411	66	39	350	132	82	108	7.7	7.2	12	3.4
24	4.9	168	62	82	300	124	73	189	8.7	*6.3	9.2	3.5
25	4.9	134	54	113	450	114	*64	99	8.0	5.5	7.4	3.2
26	4.7	132	47	152	400	107	60	81	7.2	4.7	6.6	2.8
27	4.4	107	42	141	300	99	54	67	6.3	4.1	6.0	2.5
28	4.9	87	38	154	200	93	49	59	5.1	3.4	225	2.4
29	13	72	34	4,700	170	89	44	61	4.7	90	93	2.3
30	4.7	62	32	4,820	-------	81	43	51	4.1	30	40	2.3
31	4.4	---	30	850	-------	74	-------	40	-------	12	23	-------
Total	499.7	3,257.8	5,329	11,478	33,550	9,283	5,664	3,160	330.9	1,699.6	769.5	658.5
Mean	16.1	109	172	370	1,157	300	189	102	11.0	54.8	24.8	22.0
Cfsm	0.135	0.916	1.45	3.11	9.72	2.52	1.59	0.857	0.092	0.461	0.208	0.185
In.	0.16	1.02	1.67	3.59	10.49	2.90	1.77	0.99	0.10	0.53	0.24	0.21

Calendar year 1955: Max 10,300 Min 0.6 Mean 220 Cfsm 1.85 In. 25.10
Water year 1955-56: Max 7,000 Min 2.3 Mean 207 Cfsm 1.74 In. 23.67

Peak discharge (base, 7,000 cfs).--Jan. 30 (12:30 a.m.) 10,900 cfs (15.06 ft); Feb. 4 (about 11 a.m.) 9,600 cfs (14.5 ft); Feb. 17 (time and discharge unknown).

* Discharge measurement made on this day.

Note.--No gage-height record Feb. 3 to Mar. 20; discharge estimated on basis of weather records, 2 gage readings, 1 high-water mark, and records for East Fork near Lascassas.

Stones River near Smyrna, Tenn.

Location.--Lat 35°59'59", long 86°27'35", on right bank 30 ft downstream from highway bridge at Jefferson Springs, 1¼ miles downstream from confluence of East and West Forks, 3½ miles upstream from Falls Creek, and 3½ miles northeast of Smyrna, Rutherford County.

Drainage area.--552 sq mi.

Records available.--July 1925 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 459.76 ft above mean sea level, Sandy Hook datum. Prior to Sept. 22, 1926, tape gage at same site and datum.

Average discharge.--31 years, 948 cfs.

Extremes.--Maximum discharge during year, 33,600 cfs Feb. 18 (gage height, 31.90 ft); minimum, 21 cfs Oct. 31 (gage height, 1.01 ft).

1925-56: Maximum discharge, 54,100 cfs Feb. 13, 1948 (gage height, 41.03 ft, from floodmark), from rating curve extended above 26,000 cfs on basis of slope-area determination at gage height 36.5 ft, from profile and map prepared by Corps of Engineers; minimum observed, 0.8 cfs Aug. 17, 22, 1925 (gage height, 0.50 ft).

Maximum stage known, 43.4 ft in March 1902.

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)
1143	1949	Nov. 29, 1948	19,400	23.83
1173	1950	Jan. 31, 1950	26,100	28.15
1206	1951	Feb. 1, 1951	29,000	29.66
1236	1952	Dec. 8, 1951	35,000	32.56
1276	1953	Feb. 21, 1953	20,700	24.05
1336	1954	Jan. 21, 1954	32,200	31.22

Remarks.--Records fair.

Cooperation.--Four discharge measurements furnished by Corps of Engineers.

Revisions (water years).--WSP 853: 1929(M). WSP 953: 1928(M), 1929, 1934-37. WSP 1276: 1942. Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1948-55, superseding those published in WSP 1113, 1143, 1173, 1206, 1236, 1276, 1336, and 1386, are given herewith:

1950		1954	
Jan. 6	22,600	Jan. 16	18,200
Feb. 9	16,700	21	25,700
		22	18,900
1951		Dec. 29	19,500
Feb. 1	25,000		
Dec. 8	25,600	1955	
9	16,900	Feb. 22	22,700
15	17,200		

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
January 1950	198,940	22,700	376	6,417	11.62	13.40
February	131,765	20,800	686	4,706	8.53	8.88
Water year 1949-50	495,606	22,700	24	1,358	2.46	33.39
Calendar year 1950	-	22,700	23	1,374	2.49	33.80
February 1951	119,566	25,000	966	4,270	7.74	8.06
Water year 1950-51	-	25,000	19	1,159	2.10	28.50
December 1951	140,576	25,600	496	4,535	8.22	9.47
Calendar year 1951	-	25,600	19	1,545	2.80	38.00
Water year 1951-52	-	25,600	20	1,160	2.10	28.62
January 1954	116,210	25,700	23	3,749	6.79	7.83
Water year 1953-54	-	25,700	6.5	795	1.44	19.55
December 1954	49,952	19,500	60	1,611	2.92	3.37
Calendar year 1954	-	25,700	6.5	953	1.73	23.44
February 1955	97,109	22,700	552	3,468	6.28	6.54
Water year 1954-55	-	42,900	15	1,121	2.03	27.56

Revised peak discharge.--1947-48: Mar. 7 (2 a.m.) 17,000 cfs.

1948-49: Nov. 29 (1:30 a.m.) 19,400 cfs: Jan. 5 (about 9:30 p.m.) 17,700 cfs; June 16 (4 a.m.) 16,900 cfs.

1949-50: Jan. 6 (2 a.m.) 24,300 cfs; Jan. 31 (6 a.m.) 26,100 cfs; Feb. 7 (3 p.m.) 16,400 cfs; Feb. 9 (9 p.m.) 24,000 cfs.

1950-51: Jan. 14 (2 a.m.) 17,300 cfs (20.67 ft); Feb. 1 (5:30 p.m.) 29,000 cfs (29.66 ft); Feb. 21 (11:30 a.m.) 19,100 cfs (22.54 ft); Apr. 22 (2:30 p.m.) 19,000 cfs (22.42 ft).

1951-52: Dec. 8 (10:30 p.m.) 35,000 cfs (32.56 ft); Dec. 15 (9 a.m.) 22,900 cfs (26.03 ft); Jan. 27 (6:30 a.m.) 16,100 cfs (19.47 ft); Mar. 3 (12 p.m.) 25,700 cfs (27.92 ft); Mar. 10 (9 a.m.) 17,300 cfs (20.74 ft).

1952-53: Feb. 12 (11 a.m.) 17,900 cfs (21.28 ft); Feb. 21 (11:30 a.m.) 20,700 cfs (24.05 ft); Mar. 3 (11:30 a.m.) 18,800 cfs (22.16 ft); May 19 (7 p.m.) 17,400 cfs (20.82 ft).

1953-54: Jan. 16 (10 a.m.) 22,000 cfs (25.55 ft); Jan. 21 (10:30 a.m.) 32,200 cfs (31.22 ft); Mar. 24 (4 p.m.) 17,500 cfs (20.93 ft); Apr. 16 (12 p.m.) 21,300 cfs (24.58 ft).

1954-55: Dec. 29 (2 p.m.) 21,600 cfs (24.86 ft); Feb. 6 (9:30 p.m.) 20,600 cfs (23.97 ft); Feb. 22 (2:30 p.m.) 25,700 cfs (27.90 ft).

Stones River near Smyrna, Tenn.--Continued

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 21 to Apr. 6, June 10-22, June 28 to July 1; rate of change in stage used as a factor Dec. 4, 5, Jan. 29-31, Feb. 2, 4, 5, 17-19, Mar. 14, Apr. 6, 7)

1.0	17	4.0	1,410
1.2	44	10.0	7,050
1.5	102	20.0	16,600
2.0	244	28.0	25,800
2.5	410	31.0	31,800
3.0	680		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	699	32	257	124	3,840	810	324	263	162	63	156	196
2	286	30	257	120	8,650	768	314	260	162	289	212	85
3	168	30	340	115	12,600	2,500	321	266	134	206	250	49
4	117	28	7,860	113	14,900	2,770	1,020	302	115	134	145	44
5	96	24	4,940	106	8,390	1,500	1,020	298	104	318	106	44
6	*75	24	1,970	102	5,520	1,160	6,960	260	96	914	98	42
7	302	24	1,220	100	4,110	995	4,230	976	85	375	79	736
8	1,800	*27	859	96	2,880	2,210	1,930	740	81	270	68	364
9	450	27	650	92	2,200	1,540	1,270	*418	79	352	62	209
10	260	27	495	92	1,730	1,170	950	337	70	860	58	129
11	174	27	410	87	2,490	950	824	295	64	330	53	96
12	124	24	364	85	2,130	810	734	266	57	212	48	79
13	109	28	318	83	1,600	929	584	241	55	174	44	64
14	98	3,100	292	81	1,330	7,970	495	234	57	150	41	60
15	85	2,450	266	73	*1,970	3,990	955	578	57	137	*38	53
16	75	761	241	72	2,970	3,170	4,650	787	57	140	40	44
17	64	524	215	72	12,800	2,600	2,010	396	57	153	41	42
18	58	382	212	*72	30,500	1,870	1,280	302	51	153	38	38
19	53	4,740	*225	83	8,710	1,450	936	257	*44	*180	62	35
20	46	2,160	241	120	4,600	1,160	722	218	42	124	648	*32
21	42	958	225	171	3,130	972	578	193	41	96	827	29
22	38	590	209	165	2,350	838	490	*499	508	81	292	28
23	34	1,520	199	168	1,830	722	442	257	206	72	165	28
24	29	1,800	190	254	1,630	632	396	321	288	79	113	28
25	28	887	183	382	1,820	572	*364	292	186	75	83	27
26	25	734	168	578	1,700	*500	337	263	111	62	73	25
27	24	560	156	554	1,340	460	311	247	79	60	62	25
28	23	434	145	495	1,160	434	289	199	62	64	1,330	25
29	25	347	137	10,600	950	410	273	186	44	188	820	24
30	23	295	134	25,300	------	378	260	257	38	635	422	23
31	23	------	132	7,030	------	350	------	193	------	270	308	------
Total	5,453	22,594	23,510	47,585	149,830	46,590	35,269	10,601	3,192	7,216	6,782	2,703
Mean	176	753	758	1,535	5,167	1,503	1,176	342	106	233	219	90.1
Cfsm	0.319	1.36	1.37	2.78	9.36	2.72	2.13	0.620	0.192	0.422	0.397	0.163
In.	0.37	1.52	1.58	3.21	10.09	3.14	2.38	0.71	0.22	0.49	0.46	0.18

Calendar year 1955: Max 42,900 Min 15 Mean 1,097 Cfsm 1.99 In. 26.96
Water year 1955-56: Max 30,500 Min 23 Mean 987 Cfsm 1.79 In. 24.35

Peak discharge (base, 17,000 cfs).--Jan. 30 (11 a.m.) 29,600 cfs (29.96 ft); Feb. 4 (8 p.m.) 20,500 cfs (23.82 ft); Feb. 18 (10 a.m.) 33,600 cfs (31.90 ft).

* Discharge measurement made on this day.

Stewart Creek near Smyrna, Tenn.

Location.--Lat 35°59'54", long 86°30'18", on upstream end of right abutment of bridge on Fifteenth Avenue, 0.4 mile downstream from Rock Springs Creek, 0.6 mile south of headquarters at Sewart Air Force Base, 1.3 miles northeast of Smyrna, Rutherford County, and 5¼ miles upstream from mouth.

Drainage area.--71 sq mi, approximately.

Records available.--June 1952 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 490.00 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Extremes.--Maximum discharge during year, 5,760 cfs Feb. 18 (gage height, 14.45 ft); minimum, 0.04 cfs Sept. 30 (gage height, 1.32 ft).
1952-56: Maximum discharge, 8,700 cfs Mar. 21, 1955 (gage height, 17.61 ft), from rating curve extended above 4,300 cfs on basis of contracted-opening determination of peak flow; no flow Sept. 23 to Dec. 11, 1953, Sept. 15-28, 1954, and Sept. 13, 1955, caused by regulation upstream.

Remarks.--Records fair except those below 10 cfs, which are poor. Occasional regulation at low flow caused by small dams above station.

Cooperation.--Two discharge measurements furnished by Corps of Engineers.

Revisions (water years).--WSP 1386: 1953-54.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 3-13)

Oct. 1 to Feb. 17				Feb. 18 to Sept. 30			
1.4	1.0	3.0	172	1.3	0.02	2.0	24
1.5	3.0	4.0	440	1.4	.8	2.5	88
1.6	5.5	6.0	1,270	1.5	2.3	3.0	175
1.8	12	8.0	1,880	1.7	7.0	4.0	440
2.0	22	10.0	2,920	1.8	10		
2.2	39	12.0	4,120				
2.6	90						

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

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	1.4	20	7.6	542	150	39	28	6.5	2.2	*1.6	7.9
2	42	1.3	21	7.3	*1,170	148	35	25	8.2	1.6	1.6	8.2
3	27	1.6	161	7.0	1,220	324	60	24	5.7	40	1.4	5.2
4	20	1.4	782	7.0	*1,670	250	298	22	5.0	18	14	4.6
5	17	1.4	240	8.7	702	193	107	21	4.8	8.8	11	3.9
6	*14	1.4	141	8.4	702	165	1,770	20	4.6	7.0	3.0	3.4
7	12	1.0	100	8.1	434	182	460	36	4.1	6.0	2.5	3.2
8	11	*1.0	*77	5.8	329	365	272	37	4.1	6.2	2.2	2.5
9	9.2	1.0	60	5.5	278	214	202	*23	4.1	5.5	1.9	2.3
10	8.5	1.4	48	*5.5	238	175	167	20	3.9	4.3	1.9	2.2
11	7.6	1.4	40	5.5	292	151	150	18	3.6	3.9	1.6	2.0
12	6.7	1.2	34	5.5	232	137	125	16	*3.2	3.4	1.5	1.9
13	7.0	1.4	28	5.2	198	195	106	14	3.0	3.2	2.0	1.7
14	6.7	391	25	4.8	201	1,120	91	24	2.8	2.8	1.4	1.6
15	5.5	130	23	4.5	*300	374	220	19	2.5	2.5	1.2	1.4
16	5.0	66	20	4.8	305	374	238	16	2.3	2.3	1.0	1.2
17	4.5	49	19	4.2	2,120	285	150	12	3.0	2.3	1.2	1.1
18	4.0	36	18	4.2	*3,780	231	123	11	3.4	4.1	1.0	1.0
19	3.5	440	17	6.1	782	188	101	10	2.5	*3.9	162	1.1
20	3.2	135	16	7.6	473	159	85	9.7	3.0	3.0	146	*1.1
21	2.8	82	14	8.5	356	*142	73	9.4	11	2.8	19	1.0
22	2.4	75	14	8.2	295	127	64	*9.7	9.1	2.5	10	1.0
23	2.0	59	12	8.8	258	107	57	11	5.7	2.3	7.6	.8
24	2.2	63	12	9.6	248	94	50	9.7	4.6	2.2	5.7	.8
25	2.2	50	11	11	270	82	*43	9.1	3.4	2.0	4.8	.8
26	2.2	42	10	16	233	74	39	9.1	3.2	1.9	4.1	.8
27	2.0	34	9.9	18	209	66	34	8.8	3.0	1.9	3.4	.7
28	2.0	29	9.2	22	184	63	31	8.2	2.8	2.0	110	.7
29	1.4	25	8.5	1,950	165	59	28	7.9	2.5	2.0	28	.5
30	1.6	22	8.5	2,160	------	50	26	7.6	2.3	1.7	14	.1
31	1.8	----	7.9	570	--------	44	--------	7.3	--------	1.6	9.4	--------
Total	335.0	1,744.8	2,007.0	4,899.4	18,166	6,288	5,244	503.5	125.9	153.9	576.1	62.7
Mean	10.8	58.2	64.7	158	626	203	175	16.2	4.20	4.96	18.6	2.09
Cfsm	0.152	0.820	0.911	2.23	8.82	2.86	2.46	0.228	0.059	0.070	0.262	0.029
In.	0.18	0.91	1.05	2.57	9.52	3.29	2.75	0.26	0.07	0.08	0.30	0.03

Calendar year 1955: Max 4,340 Min 0 Mean 127 Cfsm 1.79 In. 24.33
Water year 1955-56: Max 3,760 Min 0.1 Mean 110 Cfsm 1.55 In. 21.01

Peak discharge (base, 1,800 cfs).--Jan. 30 (5 a.m.) 3,770 cfs (11.41 ft); Feb. 4 (2 p.m.) 2,380 cfs (9.10 ft); Feb. 18 (4 a.m.) 5,760 cfs (14.45 ft); Apr. 6 (11 a.m.) 3,500 cfs (10.96 ft).
* Discharge measurement made on this day.

Stones River above Donelson, Tenn.

Location.--Lat 36°04'23", long 86°33'30", on left bank half a mile downstream from Hurricane Creek, 3.3 miles upstream from county highway bridge at Couchville, $8\frac{3}{4}$ miles southeast of Donelson, Davidson County, and at mile 17.7.

Drainage area.--834 sq mi.

Records available.--January 1939 to September 1956. Published as "near Donelson" 1939-40. Records published for both sites April to September 1940.

Gage.--Water-stage recorder at present site and datum since Apr. 16, 1940. Datum of gage is 400.00 ft above mean sea level, Sandy Hook datum. January 1939 to September 1940 wire-weight gage at site 10.5 miles downstream at datum 18 ft lower.

Average discharge.--17 years, 1,364 cfs.

Extremes.--Maximum discharge during year, 43,600 cfs Feb. 18 (gage height, 50.75 ft); minimum, 21 cfs Sept. 30 (gage height, 10.88 ft).

1939-56: Maximum discharge, 68,700 cfs Feb. 14, 1948; maximum gage height, 58.46 ft Feb. 14, 1948; minimum discharge, 10 cfs Sept. 21, 23, 24, 1940; minimum gage height, 10.60 ft Sept. 19, 20, 1954.

Maximum stage known, about 59.6 ft in March 1902 (discharge, 73,000 cfs), from high-water profile by Corps of Engineers, present site and datum.

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

Cooperation.--Four discharge measurements furnished by Corps of Engineers.

Revisions (water years).--WSP 1143: 1948.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Rate of change in stage used as a factor Nov. 14, 15, 19, 20, Dec. 4, 5, Jan. 29 to Feb. 7, Feb. 17-21, Mar. 3, 14, 15, Apr. 6, 7)

Oct. 1 to Feb. 18				Feb. 19 to Sept. 30			
10.9	28	14.0	930	10.8	15	12.0	186
11.0	37	16.0	2,040	11.0	33	12.5	300
11.4	82	22.0	6,300	11.5	97	13.0	490
11.7	136	30.0	13,300				
12.0	202	44.0	28,500	Note.--Same as preceding table above 13.0 ft.			
12.5	320	50.0	41,500				
13.0	490						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,880	37	356	165	5,410	1,260	402	332	243	61	*175	263
2	864	45	344	160	11,300	1,160	370	324	229	165	125	175
3	362	47	582	154	16,300	2,320	356	363	184	223	247	99
4	248	47	8,000	145	18,700	4,300	1,830	390	152	203	171	73
5	191	42	8,410	138	15,800	*2,170	1,640	402	130	249	127	66
6	149	38	2,830	134	7,640	1,660	10,100	360	118	725	102	60
7	124	37	1,730	124	5,620	1,610	9,230	886	109	542	90	260
8	1,650	37	1,240	118	3,860	3,590	3,090	1,040	97	304	72	598
9	776	36	980	112	2,980	2,550	1,960	664	91	223	64	252
10	401	36	794	105	2,410	1,800	1,470	470	84	805	59	160
11	266	36	646	102	2,850	1,450	1,260	370	78	462	56	118
12	202	36	542	100	3,050	1,240	a1,100	310	72	245	52	96
13	209	35	474	100	2,270	1,410	a1,000	268	66	194	47	79
14	202	1,100	418	98	2,220	10,600	a900	247	69	160	55	69
15	165	4,410	377	93	3,120	6,600	a2,500	428	70	156	48	60
16	136	1,250	335	88	4,340	4,080	a5,700	1,080	76	143	41	53
17	112	812	302	87	11,300	3,890	a4,000	655	72	146	43	47
18	98	610	293	*85	40,100	2,680	a2,500	438	73	163	51	42
19	85	4,340	*290	96	21,600	2,050	a1,800	318	*69	*163	175	37
20	78	3,940	315	165	8,410	1,610	*1,100	258	65	160	1,210	*34
21	70	*1,520	300	227	4,770	1,330	880	229	78	116	1,020	31
22	66	975	281	239	3,290	1,160	758	*432	329	94	530	30
23	59	1,040	271	232	2,580	1,010	678	394	344	78	237	28
24	54	2,690	257	273	2,340	865	602	261	192	68	161	27
25	48	1,320	250	462	2,830	786	530	370	310	78	123	26
26	45	1,020	230	678	2,740	*696	478	270	192	69	100	24
27	*43	848	211	822	2,030	626	422	310	134	62	86	23
28	44	668	198	799	1,710	582	378	252	100	59	954	23
29	46	534	182	12,800	1,450	542	349	211	82	84	1,580	23
30	44	418	180	33,600	-------	490	324	231	68	446	655	22
31	40	----	167	16,900	-------	442	-------	254	-------	396	418	-------
Total	8,557	28,004	31,785	69,601	213,020	88,801	57,307	12,817	3,976	7,022	8,874	2,898
Mean	276	933	1,025	2,245	7,346	2,148	1,910	413	133	227	286	96.6
Cfsm	0.331	1.12	1.23	2.69	8.81	2.58	2.29	0.495	0.159	0.272	0.343	0.115
In.	0.38	1.25	1.42	3.10	9.50	2.97	2.58	0.57	0.18	0.31	0.40	0.13

Calendar year 1955: Max 46,500 Min 26 Mean 1,515 Cfsm 1.82 In. 24.66
Water year 1955-56: Max 40,100 Min 22 Mean 1,395 Cfsm 1.67 In. 22.77

Peak discharge (base, 16,000 cfs).--Jan. 30 (5 p.m.) 35,900 cfs (47.83 ft); Feb. 5 (2 a.m.) 23,600 cfs (40.38 ft); Feb. 18 (2 p.m.) 43,600 cfs (50.75 ft); Apr. 6 (10 p.m.) 18,000 cfs (35.02 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 station near Smyrna.

Mill Creek near Antioch, Tenn.

Location.--Lat 36°04'54", long 86°40'50", at downstream end of center bridge pier on Franklin-Limestone Road, 900 ft upstream from Nashville, Chattanooga, & St. Louis Railway spur track bridge, 1.6 miles north of Antioch, Davidson County, 2.1 miles downstream from Whittemore Branch, and 4.0 miles southeast of Radnor.

Drainage area.--64 sq mi, approximately.

Records available.--October 1953 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 472.93 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 7,320 cfs Feb. 17 (gage height, 14.87 ft); no flow Aug. 14-18, Sept. 12-30.
1953-56: Maximum discharge, 17,000 cfs Mar. 21, 1955 (gage height, 19.73 ft); no flow for many days each year.

Remarks.--Records good above 10 cfs and fair below. Minor diversion from gage pool for industrial use.

Cooperation.--One discharge measurement furnished by Corps of Engineers.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 30 to Nov. 14)

Oct. 1 to Feb. 17				Feb. 18 to Sept. 30					
3.0	8.4	3.5	80	2.4	0	3.0	8.4	5.0	455
3.1	17	4.0	180	2.5	.01	3.1	14	6.0	830
3.3	45			2.6	.02	3.2	22	7.0	1,310
				2.7	.06	3.3	33	9.0	2,400
Note.--Same as following table below 3.0 ft and above 4.0 ft.				2.8	.9	3.5	68	11.0	3,600
				2.9	3.6	4.0	180		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	1.5	7.2	4.7	433	61	24	24	14	0.2	**6.2	1.0
2	9.2	1.5	10	4.3	1,050	64	21	31	6.2	.2	6.3	.8
3	4.3	2.2	216	4.3	1,010	212	21	26	5.2	.1	15	.5
4	3.0	2.2	293	4.0	1,370	116	86	23	4.7	.1	6.9	.1
5	2.2	1.8	86	3.6	440	84	30	20	4.3	.1	3.8	.04
6	1.8	1.8	52	3.6	538	68	2,040	61	4.7	3.2	.9	.03
7	1.8	1.5	38	3.6	268	265	295	140	4.7	2.2	.2	.02
8	2.2	1.2	*28	3.6	190	358	170	50	4.3	1.3	.06	.02
9	1.8	1.0	22	3.3	152	168	118	*30	4.3	1.3	.03	.02
10	1.5	1.0	18	*3.0	124	127	94	24	4.0	1.2	.02	.01
11	1.5	1.2	15	3.0	182	103	88	20	3.3	.7	.01	.01
12	2.2	1.2	13	3.0	130	98	70	18	3.0	.5	.01	*0
13	9.2	1.3	12	3.0	106	261	57	16	3.0	.8	.01	0
14	4.3	98	10	3.0	190	1,070	50	16	1.3	.9	0	0
15	4.7	40	9.2	3.0	*369	282	145	18	1.3	.9	*0	0
16	4.0	19	8.4	2.6	300	329	148	23	1.3	.7	0	0
17	2.6	19	7.2	2.6	3,120	215	88	17	1.3	.2	0	0
18	2.6	12	7.8	2.6	2,590	162	68	15	*.9	.04	0	0
19	2.2	299	9.2	4.3	595	127	55	14	.8	.02	128	0
20	*1.3	55	7.2	6.7	353	98	*47	13	.7	.02	138	*0
21	1.3	*32	6.2	6.2	242	*82	40	13	.5	2.0	8.2	0
22	1.5	20	6.2	5.7	178	70	35	15	.2	2.2	3.0	0
23	1.8	41	5.7	6.2	139	59	32	14	3.0	1.2	1.2	0
24	1.5	28	5.7	7.8	158	52	29	26	1.8	*.3	1.2	0
25	1.8	20	5.7	10	217	45	26	16	1.0	.2	.9	0
26	1.8	18	5.2	12	134	42	24	15	.5	.04	.9	0
27	1.5	14	4.7	13	111	35	22	16	.3	.02	.5	0
28	1.5	12	4.3	39	88	33	20	14	.2	.02	27	0
29	2.6	10	4.3	3,410	72	32	20	14	.06	.02	8.8	0
30	2.2	7.8	4.7	1,430	------	28	20	13	.06	.02	3.0	0
31	1.8	------	4.7	302	------	26	------	22	------	.01	1.3	------
Total	107.7	764.2	926.6	5,313.7	14,849	4,772	3,983	777	80.92	20.71	361.44	2.55
Mean	3.47	25.5	29.9	171	512	154	133	25.1	2.70	0.668	11.7	0.085
Cfsm	0.054	0.398	0.467	2.67	8.00	2.41	2.08	0.392	0.042	0.010	0.183	0.0013
In.	0.06	0.44	0.54	3.09	8.63	2.77	2.31	0.45	0.05	0.01	0.21	0.001

Calendar year 1955: Max 7,440 Min 0 Mean 99.4 Cfsm 1.55 In. 21.06
Water year 1955-56: Max 3,410 Min 0 Mean 87.3 Cfsm 1.36 In. 18.56

Peak discharge (base, 2,000 cfs).--Jan. 29 (5:30 p.m.) 6,440 cfs (14.20 ft); Feb. 4 (6:30 a.m.) 3,870 cfs (11.38 ft); Feb. 17 (6:30 p.m.) 7,320 cfs (14.87 ft); Mar. 14 (2:30 a.m.) 3,030 cfs (10.09 ft); Apr. 6 (12 m.) 6,600 cfs (14.33 ft).
* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.

West Harpeth River near Leipers Fork, Tenn.

Location.--Lat 35°53'56", long 86°58'01", on downstream end of center pier at bridge on State Highway 96, 0.6 mile downstream from Murfrees Fork, 1.2 miles upstream from Leipers Fork, 1.8 miles east of town of Leipers Fork, Williamson County, and 5.7 miles west of Franklin.

Drainage area.--66.0 sq mi.

Records available.--October 1954 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 634.10 ft above mean sea level, unadjusted (Tennessee Valley Authority benchmark).

Extremes.--Maximum discharge during year, 14,800 cfs Feb. 17 (gage height, 14.44 ft), from rating curve extended above 3,000 cfs on basis of contracted-opening and flow-over-road determination at gage height 14.8 ft; minimum, 0.04 cfs Sept. 25-30; minimum gage height, 0.28 ft Sept. 28-30.

1954-56: Maximum discharge, 18,900 cfs Mar. 21, 1955 (gage height, 14.8 ft, from floodmarks), from rating curve extended above 3,000 cfs on basis of contracted opening and flow-over-road determination of peak flow; no flow Sept. 20-23, 26, 27, 1955.

Remarks.--Records good except those below 10 cfs or above 3,000 cfs, which are fair, and those for period of no gage-height record, which are poor.

Revisions.--The peak discharge for the water year 1955 has been revised as shown below, superseding figure published in WSP 1386.

Revised peak discharge.--1954-55: Feb. 22 (2 a.m.) 2,950 cfs (gage height, 12.40 ft).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 13, 14, Apr. 17 to May 6)

Oct. 1 to May 6						May 7 to Sept. 30			
0.4	0.04	1.2	19	11.0	1,910	0.2	0	0.8	4.8
.5	.3	1.5	40	12.0	2,500	.3	.05	1.0	11
.6	1.0	2.0	94	12.5	3,130	.4	.2	1.2	20
.7	2.3	5.0	590	13.0	4,600	.5	.6	1.4	38
.8	4.2	8.0	1,150	13.5	7,200	.6	1.2	1.6	60
1.0	10	10.0	1,570			.7	2.7	2.0	114

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	*1.0	3.4	4.4	396	90	34	44	4.6	1.0	*11	0.5
2	4.4	.6	5.1	4.6	821	100	*32	*71	3.7	3.6	108	.4
3	3.0	.7	53	4.6	866	220	32	55	3.4	1.3	12	.2
4	*2.3	.9	132	*4.4	1,160	130	68	45	*4.3	1.2	4.6	*.1
5	1.9	1.6	*41	4.4	500	110	36	34	4.1	*1.1	3.2	17
6	1.4	1.3	26	4.4	559	*97	1,340	76	3.7	1.0	2.5	5.2
7	1.3	1.1	19	4.2	324	119	300	58	3.2	1.1	1.8	.9
8	1.3	1.0	16	4.0	239	199	191	39	3.0	36	1.3	.4
9	1.1	1.0	13	3.8	199	132	157	30	2.8	59	1.0	.2
10	1.0	1.2	11	3.8	171	114	138	24	2.7	6.2	.9	.1
11	.9	1.3	10	4.0	174	98	127	20	2.3	3.4	.8	.08
12	.8	1.6	9.3	4.2	142	89	104	17	1.9	2.8	.6	.07
13	2.8	1.9	8.6	4.0	122	156	89	15	1.9	11	.6	.06
14	2.2	17	8.3	3.8	114	577	79	14	2.8	3.4	.5	.06
15	1.4	6.8	7.7	3.8	177	255	120	15	3.4	3.2	.5	.06
16	1.0	4.4	6.8	4.0	202	268	109	14	2.8	2.3	.4	.05
17	.8	3.0	6.5	3.6	5,230	196	85	11	2.3	1.6	.4	.05
18	.8	2.7	8.3	3.4	6,000	165	74	10	1.8	1.4	.3	.05
19	.8	79	7.7	7.1	1,000	138	65	9.6	1.4	1.1	.4	.05
20	*.7	15	6.5	7.1	400	115	59	9.2	33	1.3	.3	.05
21	.8	9.7	6.2	5.6	250	102	54	8.2	37	1.1	.3	.05
22	.7	7.4	5.9	5.1	200	90	52	7.5	8.4	.8	.3	.05
23	.4	8.6	5.9	5.9	170	80	49	6.9	4.8	.5	.3	.05
24	.2	6.8	5.9	6.5	170	71	45	9.9	3.7	.3	.2	.05
25	.2	6.5	5.6	6.5	220	64	38	6.3	3.0	.2	.2	.05
26	.2	5.6	5.1	6.5	150	58	35	9.6	3.7	.09	.2	.04
27	.2	5.1	4.8	7.1	*120	54	33	6.8	3.0	.06	.6	.04
28	.9	4.2	4.6	16	110	50	30	5.5	2.3	.06	27	.04
29	2.7	3.6	4.4	1,510	100	46	30	4.6	1.6	44	4.3	.04
30	2.8	3.4	4.6	1,350	-------	40	31	4.1	1.2	21	.9	.04
31	1.9	-------	4.6	306	-------	37	-------	3.7	-------	2.5	.5	-------
Total	52.9	204.0	456.8	3,312.8	20,286	4,060	3,636	683.9	157.8	213.61	185.9	26.03
Mean	1.71	6.80	14.7	107	700	131	121	22.1	5.26	6.89	6.00	0.868
Cfsm	0.026	0.103	0.223	1.62	10.61	1.98	1.83	0.335	0.080	0.104	0.091	0.013
In.	0.03	0.11	0.26	1.87	11.43	2.29	2.05	0.39	0.09	0.12	0.10	0.01

Calendar year 1955: Max 10,300 Min 0 Mean 115 Cfsm 1.74 In. 23.63
Water year 1955-56: Max 6,000 Min 0.04 Mean 90.9 Cfsm 1.38 In. 18.75

Peak discharge (base, 1,900 cfs).--Jan. 29 (8 p.m.) 3,200 cfs (12.53 ft); Feb. 4 (6:30 a.m.) 2,020 cfs (11.24 ft); Feb. 17 (11 p.m.) 14,800 cfs (14.44 ft); Apr. 6 (9:30 a.m.) 3,130 cfs (12.50 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Feb. 18 to Mar. 5; discharge estimated on basis of weather records, and records for Rutherford Creek near Carters Creek and Mill Creek near Antioch.

Harpeth River at Belleview, Tenn.

Location.--Lat 36°03'16", long 86°55'42", on right bank 45 ft upstream from bridge on State Highway 100, 0.1 mile downstream from Little Harpeth River, and 0.9 mile southeast of Belleview, Davidson County.

Drainage area.--404 sq mi.

Records available.--April 1920 to October 1929, January 1932 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 541.04 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1933, staff or chain gage at site 2½ miles downstream at datum 7.85 ft lower.

Average discharge.--33 years, 563 cfs.

Extremes.--Maximum discharge during year, 20,500 cfs Feb. 18 (gage height, 20.15 ft); minimum 0.3 cfs Sept. 28-30 (gage height, 0.79 ft).
1920-29, 1932-56: Maximum discharge, 40,000 cfs Feb. 13, 1948 (gage height, 24.34 ft, from floodmarks); no flow Oct. 5-10, 1932.

Remarks.--Records good except those below 50 cfs, which are fair. Some diversion above station for irrigation.

Cooperation.--Three discharge measurements furnished by Corps of Engineers.

Revisions (water years).--WSP 953: 1920-30, 1932-35. WSP 1386: 1948.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 5-13)

Oct. 1 to Feb. 18				Feb. 19 to Sept. 30			
0.8	0.8	2.5	460	0.79	0.3	2.0	253
.9	4.7	3.0	765	.8	.4	2.5	480
1.0	14	10.0	5,100	.9	5.0	3.0	810
1.2	38	16.0	9,800	1.0	14	12.0	6,500
1.4	72	18.0	14,000	1.2	36	16.0	9,800
1.7	147	20.0	20,000	1.4	73	18.0	14,000
2.0	245						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	353	14	41	35	1,900	570	218	173	46	11	18	18
2	80	11	42	35	4,420	582	209	275	36	8.9	14	13
3	41	7.8	58	35	5,850	814	197	272	35	8.0	358	12
4	28	5.4	998	34	6,230	1,350	627	242	32	7.2	86	12
5	21	5.4	905	33	5,200	803	365	197	30	16	39	9.8
6	18	9.9	340	32	3,500	670	4,280	197	29	58	24	42
7	13	*11	245	32	2,390	985	4,490	253	26	23	18	34
8	12	9.9	190	30	1,680	1,830	1,340	395	24	16	14	20
9	11	8.8	141	29	1,340	1,180	980	225	22	68	14	15
10	9.9	9.9	114	*26	1,100	929	761	188	20	80	21	11
11	8.8	7.8	99	25	1,160	768	663	164	19	54	16	8.9
12	7.8	7.8	85	26	1,000	684	540	134	18	32	14	7.2
13	11	7.8	*76	28	800	894	440	110	19	23	11	5.7
14	11	50	70	28	1,070	4,010	365	93	26	28	8.9	5.0
15	15	244	66	28	1,320	2,290	415	90	*22	24	8.0	4.3
16	13	85	59	26	1,530	1,860	986	93	19	19	7.2	3.7
17	9.9	57	52	25	5,350	1,540	628	122	19	17	7.2	3.1
18	8.8	46	50	25	17,900	1,200	470	96	19	*13	5.7	2.5
19	8.8	352	52	30	12,000	1,020	390	76	73	12	5.0	2.0
20	7.8	356	55	40	2,760	831	322	67	72	12	52	*1.1
21	6.9	153	52	44	1,890	*705	275	65	56	15	46	.6
22	6.1	96	48	42	1,450	600	250	60	88	23	*26	.6
23	6.1	112	47	42	1,180	522	232	*56	56	17	16	1.1
24	4.7	94	47	44	1,170	445	212	52	32	11	12	1.5
25	4.0	119	46	47	1,250	390	197	128	25	8.0	8.0	1.1
26	4.7	85	44	50	1,180	345	*185	86	21	6.4	7.2	*.8
27	*4.7	70	41	57	*943	322	173	67	18	5.0	7.2	.6
28	*4.7	61	38	72	796	294	158	62	16	4.3	69	.4
29	6.1	53	35	4,040	649	279	146	54	15	3.7	167	.3
30	10	46	35	10,200	-------	253	149	50	14	6.2	50	.3
31	21	-----	35	4,790	-------	232	-------	60	-------	36	25	-------
Total	767.8	2,195.5	4,206	20,030	89,008	29,197	20,663	4,202	947	665.7	1,174.4	237.6
Mean	24.8	73.2	136	646	3,069	942	689	136	31.6	21.5	37.9	7.92
Cfsm	0.061	0.181	0.337	1.60	7.60	2.33	1.71	0.337	0.078	0.053	0.094	0.020
In.	0.07	0.20	0.39	1.84	8.19	2.69	1.90	0.39	0.09	0.06	0.11	0.02

Calendar year 1955: Max 24,600 Min 1.5 Mean 571 Cfsm 1.41 In. 19.19
Water year 1955-56: Max 17,900 Min 0.3 Mean 473 Cfsm 1.17 In. 15.95

Peak discharge (base, 7,500 cfs).--Jan. 30 (5 p.m.) 10,600 cfs (16.51 ft); Feb. 18 (5:30 p.m.) 20,500 cfs (20.15 ft); Apr. 7 (1 a.m.) 8,140 cfs (14.34 ft).
* Discharge measurement made on this day.

Harpeth River near Kingston Springs, Tenn.

Location.--Lat 36°07'18", long 87°05'56", on right bank 400 ft upstream from bridge on U. S. Highway 70, 2 miles northeast of Kingston Springs, Cheatham County, 3 miles downstream from Turnbull Creek, and at mile 32.4.

Drainage area.--687 sq mi.

Records available.--July 1925 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 448.04 ft above mean sea level, datum of 1929. Prior to Jan. 23, 1939, staff gage at site 150 ft downstream at same datum.

Average discharge.--31 years, 947 cfs.

Extremes.--Maximum discharge during year, 35,600 cfs Feb. 18 (gage height, 23.24 ft); minimum, 22 cfs Sept. 18, 19, 23; minimum gage height, 0.57 ft Sept. 23.
1925-56: Maximum discharge, 60,000 cfs Jan. 7, 1946 (gage height, 32.20 ft); minimum, 12 cfs Sept. 18, 1939; minimum gage height observed, 0.26 ft Sept. 24, 1931.

Remarks.--Records good.

Cooperation.--Four discharge measurements furnished by Corps of Engineers.

Revisions (water years).--WSP 953: 1927, 1933, 1935-36. WSP 1033: 1927(M), 1932-33(M), 1935(M), 1937(M).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 1-14)

Oct. 1 to Jan. 29				Jan. 30 to Sept. 30			
0.7	33	2.0	265	0.5	19	3.0	700
.8	42	2.5	435	.8	35	6.0	2,980
1.0	62	3.0	670	1.2	75	12.0	8,250
1.3	99	6.0	2,900	1.6	143	16.0	12,600
1.7	182	11.0	7,250	2.0	238	20.0	18,000
				2.5	420	23.0	24,900

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	751	52	111	98	3,160	1,070	380	450	141	59	49	71
2	300	59	122	98	6,220	1,070	368	475	125	54	66	56
3	158	67	130	98	9,650	1,090	372	652	109	52	126	48
4	104	68	321	94	8,880	1,850	720	520	103	49	236	41
5	84	62	1,480	93	8,440	1,310	917	435	99	48	127	41
6	72	57	640	92	5,050	1,130	6,110	408	94	46	82	*
7	82	*54	423	88	3,970	1,680	7,860	580	88	87	62	58
8	83	51	336	86	2,710	3,260	2,700	580	85	73	50	78
9	66	50	283	82	2,140	2,430	1,810	470	79	102	51	59
10	60	51	236	*78	1,760	1,710	1,410	360	76	145	36	49
11	57	52	200	80	1,740	1,380	1,220	310	72	139	36	44
12	56	52	177	80	1,680	1,200	1,050	275	68	109	44	38
13	94	54	165	80	1,360	1,320	854	238	68	112	37	34
14	92	162	156	76	2,540	5,160	742	212	74	114	91	30
15	71	274	149	73	4,360	4,670	798	212	97	100	272	26
16	63	298	136	80	3,670	2,980	1,280	210	91	89	82	24
17	64	175	130	76	8,040	2,720	1,240	205	79	72	*58	23
18	62	134	134	76	22,800	2,040	917	207	71	65	47	22
19	59	430	*132	101	22,800	1,680	777	183	68	59	45	22
20	57	630	126	149	8,270	1,380	652	165	151	*59	152	24
21	*55	364	124	124	3,390	*1,160	562	152	205	61	118	24
22	53	242	120	124	2,480	1,030	495	143	137	56	109	23
23	49	350	118	132	1,970	910	455	*135	154	52	81	23
24	46	301	116	132	1,930	812	412	131	127	57	64	33
25	42	239	116	132	2,400	707	380	129	100	55	54	33
26	41	228	113	132	2,260	628	*380	193	86	47	45	29
27	43	180	109	134	*1,740	580	336	170	79	40	43	*28
28	47	151	102	181	1,480	526	314	145	72	34	46	26
29	68	134	99	6,950	1,220	490	303	141	66	31	82	25
30	73	118	99	17,200	-------	445	310	129	63	77	188	26
31	59	---	99	9,540	-------	408	-------	121	-------	54	100	-------
Total	3,011	5,139	6,802	36,565	148,110	48,826	36,104	8,736	2,927	2,197	2,679	1,113
Mean	97.1	171	219	1,180	5,107	1,575	1,203	282	97.6	70.9	86.4	37.1
Cfsm	0.141	0.249	0.319	1.72	7.43	2.29	1.75	0.410	0.142	0.103	0.126	0.054
In.	0.16	0.28	0.37	1.98	8.02	2.64	1.95	0.47	0.16	0.12	0.15	0.06

Calendar year 1955: Max 33,100 Min 22 Mean 969 Cfsm 1.41 In. 19.14
Water year 1955-56: Max 22,800 Min 22 Mean 826 Cfsm 1.20 In. 16.36

Peak discharge (base, 10,000 cfs).--Jan. 30 (3 a.m.) 21,400 cfs (21.61 ft); Feb. 3 (10 a.m.) 11,300 cfs (14.90 ft); Feb. 18 (11 a.m.) 25,600 cfs (23.24 ft).
* Discharge measurement made on this day.

Red River near Adams, Tenn.

Location.--Lat 36°35'25", long 87°05'25", on downstream end of right bank pier of bridge on U. S. Highway 41, 0.5 mile downstream from Elk Creek, 1.5 miles northwest of Adams, Robertson County, and at mile 33.0.

Drainage area.--678 sq mi.

Records available.--June 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 398.34 ft above mean sea level, Sandy Hook datum (Corps of Engineers benchmark). Prior to Oct. 8, 1926, chain gage and Oct. 8, 1926, to Nov. 13, 1939, water-stage recorder, at site half a mile downstream at same datum.

Average discharge.--36 years, 961 cfs.

Extremes.--Maximum discharge during year, 17,300 cfs Jan. 31, Feb. 18; maximum gage height, 27.60 ft Feb. 18; minimum discharge, 40 cfs Sept. 29 (gage height, 1.66 ft).
1920-56: Maximum discharge, 42,000 cfs Jan. 23, 1937 (gage height, 37.5 ft, from floodmarks, converted to present site by curve of relation), from rating curve extended above 25,000 cfs; minimum, 30 cfs Sept. 10, 1925 (gage height, 1.30 ft, site then in use).

Remarks.--Records good.

Cooperation.--Two discharge measurements furnished by Corps of Engineers.

Revisions (water years).--WSP 953: 1920-27. WSP 1278: 1928, 1932(M), 1935(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 30, Aug. 20, 21; rate of change in stage used as a factor Jan. 29-31, Feb. 2, 4, 5, 17-20)

1.6	37	4.0	745
1.8	59	6.0	1,890
2.0	91	10.0	4,410
2.5	202	27.0	16,800
3.0	330		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	179	63	73	69	4,710	1,920	770	565	286	128	186	100
2	164	69	77	67	7,630	1,830	800	765	275	*124	207	93
3	115	82	98	66	*10,300	1,720	1,220	1,480	259	118	215	86
4	87	95	230	65	7,260	1,580	3,530	1,060	237	113	257	80
5	78	111	330	63	5,740	1,450	2,400	840	232	113	175	77
6	87	109	242	62	3,970	1,360	3,170	722	223	170	133	170
7	316	93	195	60	3,270	1,330	5,560	1,200	218	202	113	111
8	294	87	170	59	2,690	2,680	2,920	2,120	209	157	95	89
9	214	82	150	58	2,360	2,030	2,210	1,360	202	135	87	82
10	155	80	131	57	2,110	1,580	1,860	1,070	195	126	78	77
11	124	80	124	55	2,050	1,390	1,710	905	188	113	75	72
12	109	78	111	54	2,010	1,390	1,600	790	181	106	73	67
13	188	77	104	54	1,730	1,580	1,340	704	177	159	70	63
14	184	75	100	54	1,830	5,220	1,180	632	294	313	67	62
15	157	77	91	53	3,440	5,140	1,170	606	330	235	63	59
16	128	106	87	52	3,740	4,220	1,520	686	242	239	60	55
17	115	118	86	*51	9,760	4,230	1,310	592	214	297	60	52
18	102	95	86	51	16,600	3,200	1,080	498	211	216	59	49
19	95	124	86	78	12,000	2,640	956	447	181	190	85	49
20	86	148	82	87	6,430	2,210	880	441	179	161	1,030	48
21	80	186	78	89	4,500	1,940	805	370	193	139	868	47
22	75	144	77	93	*3,660	1,750	750	381	186	128	364	47
23	70	126	75	91	3,090	1,560	718	370	186	187	235	46
24	66	111	75	86	3,050	1,420	686	384	181	184	190	46
25	62	100	73	82	3,770	1,280	650	381	159	155	157	45
26	60	95	70	78	3,120	1,180	624	324	157	133	139	44
27	60	89	69	75	2,640	1,110	592	313	150	120	131	42
28	62	84	69	78	2,490	1,040	556	305	144	108	113	41
29	66	77	*67	3,400	2,130	950	534	310	137	93	111	42
30	63	*75	73	*14,300	-------	*880	*552	286	131	294	111	42
31	*62	----	70	12,600	-------	815	-------	*267	-------	*313	*104	-------
Total	3,683	2,936	3,449	32,187	138,080	62,631	43,653	21,144	6,135	5,267	5,711	1,983
Mean	119	97.9	111	1,038	4,761	2,020	1,455	682	204	170	184	66.1
Cfsm	0.176	0.144	0.164	1.53	7.02	2.98	2.15	1.01	0.301	0.251	0.271	0.097
In.	0.20	0.16	0.19	1.77	7.57	3.44	2.39	1.16	0.34	0.29	0.31	0.11

Calendar year 1955: Max 17,300 Min 55 Mean 860 Cfsm 1.27 In. 17.21
Water year 1955-56: Max 16,600 Min 41 Mean 893 Cfsm 1.32 In. 17.93

Peak discharge (base, 8,000 cfs).--Jan. 31 (1 a.m.) 17,300 cfs (27.55 ft); Feb. 3 (6 a.m.) 10,900 cfs (19.24 ft); Feb. 18 (6:30 p.m.) 17,300 cfs (27.60 ft).
* Discharge measurement made on this day.

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Sulphur Fork Red River near Adams, Tenn.

Location.--Lat 36°31'00", long 87°03'40", on left bank 1,000 ft downstream from highway bridge, 2⅝ miles downstream from Millers Creek, 4½ miles south of Adams, Robertson County, and 8⅝ miles upstream from mouth.

Drainage area.--185 sq mi.

Records available.--January 1939 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 424.36 ft above mean sea level, Sandy Hook datum. Prior to Nov. 26, 1940, wire-weight gage at site 1,000 ft upstream at same datum.

Average discharge.--17 years, 230 cfs.

Extremes.--Maximum discharge during year, 11,500 cfs Jan. 30 (gage height, 21.06 ft); minimum, 3.2 cfs Sept. 26 (gage height, 3.31 ft).
1939-56: Maximum discharge, 13,200 cfs Mar. 22, 1952 (gage height, 22.75 ft); minimum, 1.8 cfs Sept. 27, 1948; minimum gage height, 3.15 ft Sept. 21-23, 1955.
Maximum stage known, 25.1 ft in June 1934, from floodmarks.

Remarks.--Records fair.

Cooperation.--One discharge measurement furnished by Corps of Engineers.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 7				Mar. 8 to Sept. 30			
3.3	13	6.0	735	3.3	3.0	4.2	87
3.5	24	7.0	1,180	3.4	5.0	4.5	182
3.7	40	10.0	4,340	3.5	8.0	6.0	715
3.9	74	19.0	9,680	3.6	12	7.0	1,180
4.5	240			3.7	19	9.0	2,390
				4.0	53		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	17	28	13	913	294	113	116	59	19	81	16
2	33	16	30	19	2,840	285	129	225	53	*18	211	14
3	23	18	69	19	3,430	270	214	368	50	18	77	12
4	19	22	186	18	2,830	255	1,650	232	48	17	69	11
5	16	20	98	18	1,330	237	410	189	46	17	50	32
6	15	20	66	18	904	231	2,310	159	46	18	40	74
7	112	18	53	18	658	1,020	1,180	475	45	19	34	38
8	64	17	44	17	518	1,090	595	341	44	17	29	22
9	31	16	39	16	430	514	402	220	41	15	25	16
10	22	16	34	16	357	358	310	182	39	13	21	12
11	19	16	30	16	387	276	290	156	38	13	19	11
12	18	16	28	16	327	242	136	57	26	17	17	10
13	47	16	26	15	285	266	208	119	36	116	16	9.2
14	38	52	25	16	342	1,220	192	107	37	81	14	8.4
15	29	42	25	16	525	887	198	109	39	61	16	7.4
16	23	33	23	16	570	948	232	119	40	45	28	5.9
17	21	37	22	*16	2,580	707	202	96	43	75	18	5.0
18	19	31	22	16	5,390	542	182	85	43	46	15	4.4
19	18	133	23	27	1,930	402	156	77	47	32	46	4.2
20	18	101	22	37	1,190	300	149	75	38	26	175	4.6
21	16	68	21	30	771	248	139	71	33	24	70	5.3
22	16	48	20	26	598	218	132	93	53	21	44	5.6
23	16	65	20	25	494	198	126	73	38	22	36	5.3
24	14	56	20	24	763	189	123	77	40	18	28	5.0
25	14	43	20	23	732	166	113	66	34	18	24	4.4
26	14	38	20	22	539	159	110	64	30	18	20	3.8
27	14	35	19	21	469	149	107	66	29	17	18	4.2
28	14	31	19	22	393	146	102	63	26	15	34	4.0
29	16	29	19	3,380	*318	136	99	60	22	16	31	4.0
30	21	*28	19	*9,030	------	*126	*104	58	21	503	22	4.6
31	*19	---	19	1,500	------	119	-------	*54	-------	*132	*18	-------
Total	840	1,078	1,109	14,473	32,815	11,998	10,529	4,351	1,195	1,494	1,346	383.3
Mean	27.1	35.9	35.8	467	1,131	387	351	140	39.8	48.2	43.4	12.1
Cfsm	0.146	0.194	0.194	2.52	6.11	2.09	1.90	0.757	0.215	0.261	0.235	0.065
In.	0.17	0.22	0.22	2.91	6.60	2.41	2.12	0.87	0.24	0.30	0.27	0.07

Calendar year 1955: Max 8,000 Min 7.2 Mean 203 Cfsm 1.10 In. 14.90
Water year 1955-56: Max 9,030 Min 3.8 Mean 223 Cfsm 1.21 In. 16.40

Peak discharge (base, 3,400 cfs).--Jan. 30 (8 a.m.) 11,500 cfs (21.06 ft); Feb. 3 (8 a.m.) 4,690 cfs (12.50 ft); Feb. 18 (8 a.m.) 7,180 cfs (15.97 ft); Apr. 6 (5 p.m.) 4,400 cfs (12.09 ft).
* Discharge measurement made on this day.

Cumberland River at Dover, Tenn.

Location.--Lat 36°29'26", long 87°50'20", on center pier of bridge on U. S. Highway 79 at Dover, Stewart County, 0.1 mile upstream from Dyer Creek, 0.6 mile upstream from Indian Creek, 0.8 mile upstream from lock and dam D, and at mile 88.8.

Drainage area.--16,530 sq mi, approximately.

Records available.--October 1937 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 324.25 ft above mean sea level, Sandy Hook datum (levels by Corps of Engineers). Prior to Feb. 8, 1939, and during periods of crest-wicket manipulation at dam D (Feb. 8, 1939, to Sept. 30, 1951) staff gage at upper lock D, 0.8 mile downstream at same datum. Auxiliary staff gage, 19.7 miles upstream, below spillway at lock and dam C, read four times daily.

Average discharge.--19 years, 24,250 cfs (unadjusted).

Extremes.--Maximum discharge during year, 144,000 cfs Feb. 21; maximum gage height, 41.85 ft Feb. 21; minimum daily discharge, 855 cfs Sept. 27; minimum gage height, 10.20 ft Dec. 13.

1937-56: Maximum discharge, 188,000 cfs Feb. 15, 1950; maximum gage height, 48.13 ft Feb. 16, 1950; minimum daily discharge, 414 cfs Oct. 4, 1947; minimum gage height observed, 7.10 ft (upper lock D gage) Sept. 16, 1947.

1916-37: Maximum gage height observed, 56.8 ft Jan. 25, 1937, at lock D; minimum observed, 6.8 ft in September 1925, at lock D. Both extremes from unpublished records of Corps of Engineers.

Remarks.--Records good except those for periods computed by using fall as a factor and those for periods of wicket manipulation, which are fair, or those for periods when crest wickets were overtopped, which are poor. Some regulation by Lake Cumberland, Dale Hollow Reservoir, Great Falls Lake, Center Hill and Old Hickory Reservoirs (see p. 63), and by Cheatham and other navigation dams on Cumberland River.

Cooperation.--Lock gage readings, record of wicket manipulation, level notes, and four discharge measurements furnished by Corps of Engineers.

Revisions (water years).--WSP 1276: 1942.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e19,300	15,800	19,600	e13,500	134,000	84,300	40,400	31,400	e4,360	e15,700	e3,960	e14,900
2	e10,500	*e12,900	23,700	19,300	127,000	59,500	40,600	34,200	e4,460	e11,100	e3,460	e13,300
3	e9,270	e12,600	22,000	e16,900	120,000	56,900	40,900	40,400	e4,480	e5,990	e4,450	e8,560
4	e13,500	e14,000	17,000	e10,400	118,000	56,500	51,800	40,400	e4,430	e5,940	e3,570	e2,020
5	e8,440	e14,800	22,400	e11,400	118,000	59,700	57,200	39,200	e4,430	e8,020	e3,180	e1,300
6	e3,220	14,200	29,500	e10,500	115,000	58,200	60,100	39,400	e6,300	e14,600	e3,150	e3,070
7	e2,060	e12,500	22,800	e8,180	102,000	56,200	82,600	34,800	e9,750	e15,900	e3,130	e11,000
8	e2,990	e14,600	23,100	e5,840	82,400	60,900	95,000	35,600	e13,400	e9,380	e2,070	e13,800
9	e5,850	e14,200	20,600	e5,800	65,200	67,900	89,000	37,800	e13,500	e6,530	e3,150	e12,200
10	e7,130	15,400	16,100	e4,330	59,400	67,900	76,900	37,700	e13,100	e11,600	e5,500	e9,780
11	e5,300	17,100	19,000	e7,550	54,800	67,300	64,200	36,700	e13,100	e12,700	e8,110	e8,360
12	e5,310	16,900	e18,900	e9,920	55,500	62,200	55,700	35,200	e11,000	e10,500	e8,540	e7,110
13	e5,750	e12,600	e9,260	e9,260	57,000	57,700	51,700	35,300	*e9,470	e13,700	e8,920	e10,300
14	e7,970	e7,910	e14,200	e6,350	53,900	69,500	48,900	30,300	e9,120	e12,700	e8,880	e15,200
15	e11,200	e6,030	22,600	e3,760	59,200	88,800	47,600	22,200	e13,200	e8,990	e9,130	e15,700
16	e11,700	e10,600	29,100	e2,260	68,200	92,800	45,000	19,900	e13,200	e5,740	e7,960	e7,560
17	e12,700	e7,540	29,800	e1,020	82,700	92,700	47,600	17,200	e10,900	e984	e8,520	e4,950
18	e12,200	e9,330	24,900	e1,030	115,000	88,500	50,600	14,700	e7,650	e2,120	e10,000	e4,340
19	e10,100	15,900	e16,100	e2,000	125,000	79,100	*50,600	14,900	e4,200	e3,280	e10,100	e5,070
20	e11,400	23,900	e7,520	e1,700	140,000	71,300	49,000	e13,100	e5,810	e2,880	e12,300	e2,170
21	e13,000	28,700	e7,340	e991	143,000	64,900	48,500	e8,910	e11,200	e1,360	e10,200	e1,680
22	e13,100	22,400	e8,700	e2,000	135,000	60,300	47,300	e6,500	e13,500	e1,980	e4,930	e2,470
23	e11,800	18,500	e7,550	e1,950	121,000	55,900	44,900	e8,480	e14,900	e2,770	e4,080	e11,100
24	e9,430	16,400	e7,270	e2,170	108,000	51,800	41,500	e11,500	e13,300	e2,790	e2,860	e11,100
25	e6,860	16,100	e4,360	e2,220	100,000	48,000	40,800	e14,300	e11,000	e1,380	e5,250	e5,000
26	e5,300	e10,900	e3,700	e2,240	95,900	44,800	40,100	e15,100	e11,600	e2,270	e7,770	e1,900
27	e5,210	e10,100	e4,340	e2,730	90,100	46,100	39,200	e13,400	e13,200	e2,950	e13,300	e855
28	e7,030	e7,060	*e6,570	e3,660	82,300	49,100	36,500	e7,770	e12,900	e5,760	e14,600	e2,370
29	e10,300	e9,660	e6,750	e29,700	72,000	44,700	36,200	e7,090	e12,800	e3,370	e8,910	e8,910
30	e11,800	14,900	e6,810	104,000	-------	39,100	29,000	e6,210	e14,500	e3,220	e11,600	e11,800
31	e14,800	-------	e9,430	124,000	-------	38,200	-------	e4,820	-------	e2,920	e13,800	-------
Total	284,520	423,530	481,680	424,661	‡2,799.5	‡1,920.8	‡1,549.4	714,280	304,760	206,914	225,380	227,875
Mean	9,178	14,120	15,540	13,700	96,530	61,960	51,650	23,040	10,160	6,675	7,270	7,596

	Observed						Adjusted†					
Calendar year 1955:	Max	167,000	Min	2,060	Mean	26,670	Mean	25,170	Cfsm	1.52	In.	20.67
Water year 1955-56:	Max	143,000	Min	855	Mean	26,130	Mean	26,740	Cfsm	1.62	In.	22.02

* Discharge measurement made on this day.

† Adjusted for change in contents in Lake Cumberland, Dale Hollow Reservoir, Great Falls Lake, and Center Hill and Old Hickory Reservoirs.

‡ Expressed in thousands.

e Crest wicket manipulation at dam D; discharge computed by weir formula plus leakage.

Note.--Crest wickets overtopped Oct. 1-6, 9, 15, Nov. 5, Jan. 22, 29, June 21 to July 2, July 5-16, 22, 28, 30, 31, Aug. 9-22, Aug. 25 to Sept. 3, Sept. 7-19, 23-25. 29, 30. Fall used as a factor Feb. 8-14, 16, 17, Feb. 21 to Mar. 14, Mar. 16-27, 29, 30. Apr. 9-14, 16.

South Fork Little River at Hopkinsville, Ky.

Location.--Lat 36°50'22", long 87°28'52", on right bank at downstream side of bridge on U. S. Highway 41A, 1 mile south of city limits of Hopkinsville, Christian County, and 6 miles upstream from North Fork.

Drainage area.--46.2 sq mi.

Records available.--October 1949 to September 1956.

Gage.--Wire-weight gage and concrete control. Datum of gage is 499.71 ft above mean sea level, datum of 1929. Prior to Dec. 22, 1949, wire-weight gage at same site and datum. Dec. 22, 1949, to Dec. 30, 1955, water-stage recorder and concrete control at same site and datum.

Average discharge.--7 years, 78.6 cfs.

Extremes.--Maximum discharge during year, Jan. 30 (time and discharge unknown); minimum daily, 0.4 cfs Sept. 23-30.
1949-56: Maximum discharge recorded, 5,670 cfs Jan. 14, 1951 (gage height, 19.17 ft); minimum observed, 0.1 cfs Oct. 22, 1949.
Maximum stage known, 20.4 ft in January 1937, from floodmark.

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are poor. Some regulation at low flow by Western State Hospital, 2 miles above station.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	1.5	5.2	3.8	400	69	60	40	15	3	0.6	2.5
2	7.1	5.1	7.5	3.7	*1,500	56	60	45	14	2.5	36	2.4
3	5.5	7.8	123	3.6	500	47	60	60	13	2	9.3	2.4
4	4.4	4.1	183	3.5	300	45	70	45	12	2	39	2.4
5	4.1	3.3	35	3.5	250	45	150	40	11	2.5	9.2	2.0
6	3.3	3.1	24	3.5	200	45	250	35	11	2	4.4	1.8
7	8.9	2.8	19	3.3	150	50	150	50	11	1.8	3.3	1.8
8	4.9	2.6	16	3.2	130	100	100	150	10	1.5	1.5	1.3
9	3.8	2.6	14	3.0	110	90	*60	50	10	1.5	2.2	1.0
10	3.1	2.4	12	3.0	100	80	80	*30	10	1	2.0	.9
11	3.1	2.4	11	3.0	120	70	200	27	9	1	1.8	.8
12	5.4	2.0	10	3.0	130	70	100	25	9	2	1.6	.8
13	*16	1.8	9.3	3.0	110	400	80	22	9	3.5	1.5	.7
14	7.5	1.8	7.5	3.0	120	1,000	60	25	15	5	1.3	.7
15	6.2	2.5	6.8	3.0	240	500	300	50	17	3.5	1.2	.6
16	5.2	11	*5.8	3.0	250	300	200	100	12	2.5	.9	.6
17	4.6	*6.8	5.8	3.5	600	250	150	50	10	2	.9	.6
18	4.1	6.5	5.8	4.0	2,000	230	120	40	9	1.5	.7	.5
19	3.6	12	5.5	4.0	600	200	100	35	8	1.2	.6	.5
20	3.1	9.6	4.9	5.0	300	180	90	30	7.5	1.2	116	.5
21	2.8	8.5	4.9	6.0	250	150	70	25	7	1.1	174	.5
22	2.6	7.5	4.6	7.0	200	130	60	20	6	1.1	20	.5
23	2.4	9.6	4.6	8.0	180	100	55	17	5.5	1	10	.4
24	2.0	10	4.6	6.0	180	90	50	16	5	1	7.1	.4
25	2.0	8.5	4.4	5.6	250	80	46	15	4.6	2	5.8	.4
26	2.2	7.8	4.1	*5.2	200	78	44	15	4	1.5	4.9	.4
27	2.0	7.5	3.6	5.0	150	74	40	25	4.5	1	4.4	*.4
28	1.8	6.5	3.8	10	100	70	38	20	5	.9	3.8	.4
29	1.6	6.2	3.6	200	*80	66	36	18	4	.8	4.4	.4
30	1.6	5.2	3.8	3,000	-------	62	35	17	4.5	.7	*3.3	.4
31	1.8	-------	3.8	700	-------	60	-------	16	-------	*.8	2.5	---- --
Total	141.7	169.0	556.9	4,021.4	9,700	4,787	2,914	1,153	272.6	55.1	474.2	29.0
Mean	4.57	5.63	18.0	130	334	154	97.1	37.2	9.09	1.78	15.3	0.97
Cfsm	0.099	0.122	0.390	2.81	7.23	3.33	2.10	0.805	0.197	0.039	0.331	0.021
In.	0.11	0.14	0.45	3.24	7.81	3.85	2.35	0.93	0.22	0.04	0.38	0.02

Calendar year 1955: Max 2,260 Min 0.6 Mean 69.9 Cfsm 1.51 In. 20.54
Water year 1955-56: Max 3,000 Min 0.4 Mean 66.3 Cfsm 1.44 In. 19.54

Peak discharge (base, 1,600 cfs).--Jan. 30 (time and discharge unknown); Feb. 2 (time and discharge unknown); Feb. 18 (time and discharge unknown).
* Discharge measurement made on this day.
Note.--Doubtful or no gage-height record Dec. 31 to July 30, Aug. 31, Sept. 1, 11-30; discharge estimated on basis of 6 discharge measurements, weather records, and records for Little River near Cadiz.

Little River near Cadiz, Ky.

Location.--Lat 36°46'40", long 87°43'18", on right bank at upstream side of highway bridge, 50 ft downstream from Casey Creek, and 8¾ miles southeast of Cadiz, Trigg County.

Drainage area.--249 sq mi.

Records available.--February 1940 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 391.45 ft above mean sea level, unadjusted. Prior to July 31, 1945, wire-weight gage at same site and datum.

Average discharge.--16 years, 339 cfs.

Extremes.--Maximum discharge during year, 7,980 cfs Jan. 30 (gage height, 17.40 ft); minimum, 15 cfs Sept. 29-30.
1940-56: Maximum discharge, 14,200 cfs Jan. 14, 1951 (gage height, 21.00 ft); minimum observed, 1.0 cfs Oct. 3, 1941.

Remarks.--Records good. Some regulation at low flow by small mill at Pee Dee, 5 miles above station.

Revisions (water years).--WSP 1173: 1942-43, 1946(M), 1949.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 16-19, Feb. 13, Mar. 1-12)

2.4	10	4.5	630
2.7	38	6.0	1,190
3.0	79	11.0	2,970
3.5	185	14.0	4,660
3.8	295	16.0	6,500

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	386	31	28	29	1,850	598	305	180	81	39	42	40
2	119	32	29	29	*4,440	563	300	190	81	42	312	39
3	81	34	68	29	3,750	522	295	200	77	39	232	35
4	62	42	345	28	1,860	475	356	191	73	38	77	33
5	50	49	197	27	1,340	430	*362	178	71	53	54	32
6	50	42	121	27	1,140	405	622	172	69	45	69	28
7	66	36	95	26	994	430	1,050	226	68	39	42	26
8	71	32	81	26	846	618	610	746	*63	35	34	24
9	65	31	71	26	738	568	475	320	60	35	30	23
10	48	32	63	25	678	440	500	*215	56	31	28	22
11	39	28	56	24	750	394	742	185	55	29	27	22
12	43	27	51	24	774	384	654	165	53	55	27	21
13	56	28	46	34	630	625	522	153	53	71	26	21
14	*113	29	45	24	662	3,090	450	142	76	93	26	19
15	74	27	43	24	1,270	1,980	628	194	90	73	25	18
16	54	30	*39	24	1,240	1,550	1,300	522	66	51	24	16
17	46	*45	38	24	3,160	1,470	900	240	58	40	24	16
18	42	79	38	24	5,990	1,090	594	175	54	37	24	16
19	38	50	37	29	3,240	917	500	149	51	38	27	17
20	35	40	35	29	1,590	786	425	134	50	*35	824	18
21	34	45	35	38	1,280	698	372	125	48	32	470	17
22	33	43	34	40	1,090	634	330	115	48	31	156	16
23	31	40	33	43	955	590	300	109	45	29	105	16
24	33	38	33	39	1,000	540	272	105	44	31	86	16
25	31	36	33	38	1,270	495	259	97	43	33	71	16
26	31	35	31	35	1,300	460	236	95	42	31	62	16
27	31	33	31	*34	914	435	222	93	40	32	56	16
28	32	32	30	35	778	405	212	99	40	29	50	*16
29	34	29	29	2,520	*658	372	200	93	39	32	47	15
30	33	27	29	6,360	------	345	191	88	39	34	*45	15
31	32		29	3,480	------	325	------	84	------	26	44	------
Total	1,873	1,102	1,873	13,164	45,987	22,634	14,184	5,780	1,733	1,258	3,166	645
Mean	60.4	36.7	60.4	425	1,586	730	473	186	57.8	40.6	102	21.5
Cfsm	0.243	0.147	0.243	1.71	6.37	2.93	1.90	0.747	0.232	0.163	0.410	0.086
In.	0.28	0.16	0.28	1.97	6.87	3.38	2.12	0.86	0.26	0.19	0.47	0.10

Calendar year 1955: Max 4,980 Min 21 Mean 330 Cfsm 1.33 In. 17.97
Water year 1955-56: Max 6,360 Min 15 Mean 310 Cfsm 1.24 In. 16.94

Peak discharge (base, 3,500 cfs).--Jan. 30 (3:30 a.m.) 7,980 cfs (17.40 ft); Feb. 2 (10:30 a.m.) 6,030 cfs (15.53 ft); Feb. 18 (3 a.m.) 6,610 cfs (16.11 ft); Mar. 14 (9:30 p.m.) 3,860 cfs (12.66 ft).
* Discharge measurement made on this day.

Cumberland River at Smithland, Ky.

Location.--Lat 37°08'45", long 88°24'25", on downstream side of left center pier of bridge on U. S. Highway 60 at Smithland, Livingston County, 1 mile downstream from McCormick Creek and 2.8 miles upstream from mouth.

Drainage area.--18,080 sq mi, approximately.

Records available.--February 1939 to September 1956 (fragmentary prior to March 1940).

Gage.--Water-stage recorder. Datum of gage is 300.00 ft above mean sea level, Sandy Hook datum. Prior to Aug. 4, 1945, wire-weight gage at same site and datum. Auxiliary water-stage recorder at Dycusburg, 16.8 miles upstream, since Nov. 20, 1944. Prior to Oct. 1, 1944, auxiliary wire-weight gage at Eureka, 28.7 miles upstream and Oct. 1 to Nov. 19, 1944, auxiliary staff gage at present site. During periods of crest-wicket operation staff gage above spillway at lock and dam F, 40.8 miles upstream, read four times daily.

Average discharge.--16 years (1940-56), 27,120 cfs (unadjusted).

Extremes.--Maximum discharge during year, 137,000 cfs Feb. 23, 24; maximum gage height, 33.61 ft Feb. 26; minimum daily discharge, 937 cfs Sept. 27.
1939-56: Maximum discharge, 201,000 cfs Feb. 18, 1950; maximum gage height, 43.10 ft Feb. 13, 1950; minimum daily discharge, 1941-56, 453 cfs June 23, 1944.
Maximum stage known, 51.1 ft January to February 1937.

Remarks.--Record good above 15,000 cfs and fair below. Discharge above 15,000 cfs computed using fall as determined by auxiliary gage as a factor; discharge below 15,000 cfs computed using upper gage at lock and dam F with wicket operation at dam as a factor. Some regulation by navigation dams on Cumberland River, and by Great Falls Lake, Lake Cumberland, Dale Hollow, Center Hill, and Old Hickory Reservoirs (see following page).

Cooperation.--Gage-height record for lock and dam F and record of wicket manipulations furnished by Corps of Engineers.

Revisions (water years).--WSP 1175: 1947(M). WSP 1336: 1940-43.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18,600	17,100	18,700	12,700	105,000	95,600	45,800	31,900	4,760	16,800	4,370	15,000
2	16,700	16,500	23,400	17,600	123,000	83,600	44,300	34,400	4,560	16,900	4,340	14,900
3	11,100	15,100	24,200	20,600	130,000	75,300	*42,600	37,700	4,760	8,790	4,800	11,900
4	13,100	15,400	22,100	12,400	131,000	71,000	47,600	41,300	4,760	5,830	4,800	4,740
5	13,100	16,500	20,100	10,700	128,000	69,700	58,200	39,700	4,960	7,150	3,750	1,670
6	7,090	17,100	28,300	11,800	*127,000	69,700	59,200	38,900	6,390	12,800	*3,750	2,800
7	2,340	15,300	26,700	6,920	125,000	68,400	71,900	37,600	10,600	16,200	3,570	*11,100
8	2,980	15,300	23,700	6,410	120,000	69,300	83,900	34,800	14,800	13,200	2,410	13,500
9	5,060	16,300	23,900	6,130	110,000	72,100	90,800	36,300	15,400	9,230	3,150	14,900
10	7,650	16,600	20,500	4,530	93,000	76,000	91,800	37,500	15,100	8,500	4,900	11,900
11	6,090	17,700	18,200	5,740	79,200	75,900	86,100	38,400	15,000	15,300	8,100	11,100
12	5,360	18,500	21,800	9,550	69,800	73,900	74,800	38,000	12,600	11,900	9,930	9,170
13	6,180	17,400	16,600	9,840	67,800	69,100	64,300	37,200	10,500	14,400	10,300	9,540
14	7,790	8,610	12,100	7,630	66,400	74,400	56,700	35,500	9,610	15,700	10,300	14,400
15	11,400	6,450	18,700	4,090	64,500	81,500	56,200	30,000	12,600	15,100	10,700	16,100
16	12,200	9,720	26,300	2,360	70,400	89,300	55,700	25,000	16,900	9,230	9,930	13,500
17	13,100	8,780	29,600	972	78,800	92,900	52,600	20,000	12,300	2,400	9,540	7,090
18	14,500	8,780	28,800	1,250	97,200	94,800	55,300	*18,000	8,920	2,270	10,700	5,270
19	11,000	14,400	22,700	2,140	105,000	93,700	55,900	18,800	4,920	4,240	11,100	6,150
20	*10,700	20,500	8,450	2,030	114,000	88,900	54,900	18,400	5,530	4,150	14,000	3,910
21	13,000	27,400	6,880	1,390	122,000	82,700	54,000	10,800	9,190	3,530	14,000	2,020
22	13,800	26,800	7,940	2,130	130,000	76,700	52,400	7,330	14,000	1,890	9,540	1,940
23	13,000	*22,100	8,280	2,320	*135,000	71,000	50,600	8,660	15,200	3,330	6,150	6,750
24	10,100	18,600	7,450	2,410	136,000	65,200	47,400	11,600	16,200	3,700	3,800	13,500
25	7,420	17,900	5,110	2,410	131,000	61,000	46,200	14,300	13,200	1,920	5,040	9,170
26	5,730	15,700	3,980	2,410	126,000	56,600	45,500	18,100	12,400	2,810	7,090	6,040
27	5,280	10,400	4,170	2,910	120,000	55,200	43,500	19,300	14,000	3,700	11,900	937
28	6,530	8,370	6,280	4,000	113,000	56,800	40,900	9,320	*15,000	4,900	15,200	1,980
29	9,900	8,420	6,970	19,000	106,000	59,200	38,600	7,680	14,000	5,720	12,700	6,750
30	11,800	13,900	*6,970	72,700	-------	53,500	35,900	6,760	15,200	3,110	11,100	12,300
31	14,400	-------	9,340	90,000	-------	47,200	-------	5,360	-------	3,330	13,500	-------
Total	307,000	461,430	508,180	358,072	‡3,123.7	‡2,270.2	‡1,703.6	768,410	333,360	247,830	254,960	280,027
Mean	9,903	15,380	16,390	11,550	107,700	73,230	56,790	24,790	11,110	7,995	8,225	8,668

		Observed					Adjusted†				
Calendar year 1955:	Max	159,000	Min	2,320	Mean	29,490	Mean	28,000	Cfsm	1.55	In.	21.02
Water year 1955-56:	Max	136,000	Min	937	Mean	28,950	Mean	29,560	Cfsm	1.63	In.	22.26

* Discharge measurement made on this day.
† Adjusted for change in contents in Great Falls Lake, Lake Cumberland, Dale Hollow, Center Hill, and Old Hickory Reservoirs, furnished by Corps of Engineers and Tennessee Valley Authority.
‡ Expressed in thousands.

Reservoirs in Cumberland River basin

Lake Cumberland.--Lat 36°52'09", long 85°08'45", in pylon of Wolf Creek Dam on Cumberland River, 10 miles southwest of Jamestown, Russell County, Ky. Drainage area, 5,790 sq mi, approximately. Records available, July 1950 to September 1956 in reports of Geological Survey; April to July 1950 in files of Corps of Engineers. Prior to October 1955, published as Wolf Creek Reservoir. Water-stage recorder. Datum of gage is at mean sea level, Sandy Hook datum. Prior to Dec. 6, 1950, staff gage at same site at datum 545.0 ft higher. Maximum contents during year, 2,294,800 cfs-days Mar. 18 (elevation, 733.72 ft); minimum, 934,400 cfs-days Jan. 1 (elevation, 673.01 ft). Maximum contents during period 1950-56, 2,505,800 cfs-days Dec. 23, 1951 (elevation, 741.32 ft); minimum (after first filling), that of Jan. 1, 1956.

Reservoir is formed by earth embankment and concrete gravity dam surmounted by 10 taintor gates 37 ft high by 50 ft wide. Final closure of dam made Aug. 7, 1950. Total capacity at elevation 760.00 ft (top of gates) is 3,070,000 cfs-days, of which 1,056,000 cfs-days above elevation 723.00 ft (crest of spillway) are reserved for flood control and 1,080,000 cfs-days between elevations 673.00 ft (minimum power pool) and 723.00 ft will be used for power production. Figures given herein represent total contents, of which 934,000 cfs-days below elevation 673.00 ft are dead storage. Reservoir is used for flood control, power, and navigation. Records furnished by Corps of Engineers.

Dale Hollow Reservoir.--Lat 36°32'19", long 85°27'05", at Dale Hollow Dam on Obey River, 3 miles east of Celina, Clay County, Tenn., and 7.3 miles upstream from mouth. Drainage area, 935 sq mi. Records available, August 1943 to September 1956. Water-stage recorder. Datum of gage is at mean sea level, Sandy Hook datum. Prior to June 25, 1946, staff gage at same site and datum. Maximum contents during year, 703,200 cfs-days Apr. 7 (elevation, 652.48 ft); minimum, 433,000 cfs-days Jan. 12 (elevation, 631.08 ft). Maximum contents observed during period 1943-56, 780,000 cfs-days Feb. 10, 1950 (elevation, 657.8 ft); minimum observed (after first filling), 428,000 cfs-days Sept. 11, 1944 (elevation, 630.63 ft).

Reservoir is formed by concrete gravity dam. Spillway is equipped with 6 taintor gates each 12 ft high by 60 ft wide. Storage began Aug. 30, 1943, and water in reservoir first reached minimum pool elevation May 7, 1944. Total capacity at elevation 663.0 ft (top of gates) is 860,000 cfs-days of which 178,000 cfs-days between elevations 663.0 ft (top of gates) and 651.0 ft (crest of spillway) is reserved for flood control, and 250,000 cfs-days between elevations 651.0 and 631.0 ft (ordinary minimum pool) is used for power production. Reservoir is used for flood control, navigation, and power. Records furnished by Corps of Engineers.

Great Falls Lake.--Lat 35°48'10", long 85°38'00", at penstock inlet on Collins River, 800 ft southwest of powerhouse of Tennessee Valley Authority, 1.9 miles northwest of Rock Island, Warren County, Tenn., 2.3 miles upstream from mouth, and 2.4 miles upstream from Great Falls Dam on Caney Fork. Drainage area, 1,640 sq mi, approximately. Records available, January 1917 to September 1956. Remote indicator gage. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 38,700 cfs-days Feb. 2 (elevation, 805.97 ft); minimum, 8,500 cfs-days Jan. 14 (elevation, 780.79 ft). Maximum 12 p.m. elevation during period 1916-56, 817.48 ft Mar. 23, 1929 (contents not determined); minimum 12 p.m. contents, 1,700 cfs-days Aug. 19, 1918 (elevation, 756.3 ft).

Reservoir is formed by concrete gravity dam. Spillway is equipped with 18 taintor gates each 14 ft high by 25 ft wide. Dam completed and storage began in 1916; dam redesigned and crest raised 35 ft in 1925. Total capacity at elevation 804.9 ft (top of gates) is 27,400 cfs-days, of which 24,900 cfs-days is controlled storage above elevation 762.0 ft (minimum pool). Reservoir is used primarily for power. Records furnished by Tennessee Valley Authority.

Center Hill Reservoir.--Lat 36°05'48", long 85°49'38", at Center Hill Dam on Caney Fork, 10 miles north of Smithville, DeKalb County, 14 miles southeast of Carthage, Smith County, Tenn., and at mile 26.6. Drainage area, 2,195 sq mi. Records available, November 1948 to September 1956. Water-stage recorder. Datum of gage is at mean sea level, Sandy Hook datum. Prior to Mar. 14, 1949, staff gage a quarter of a mile upstream at same datum. Maximum contents during year, 768,000 cfs-days Feb. 20 (elevation, 658.26 ft); minimum, 421,600 cfs-days Jan. 13 (elevation, 617.90 ft). Maximum contents during period 1948-56, 1,005,000 cfs-days Feb. 10, 1950 (elevation, 680.6 ft); minimum observed (after first filling), 171,000 cfs-days Dec. 1, 2, 1949 (elevation, 576.1 ft).

Reservoir is formed by concrete dam with earth embankment. Spillway equipped with 8 taintor gates, 37 ft high by 50 ft wide. Closure of dam was made Nov. 27, 1948; water in reservoir first reached minimum pool elevation Jan. 11, 1949. Total capacity at elevation 685.0 ft (top of gates) is 1,055,000 cfs-days, of which 385,000 cfs-days between elevations 685.0 ft (top of gates) and 648.0 (crest of spillway) is reserved for flood control, and 248,000 cfs-days between elevations 648.0 ft (crest of spillway) and 618.0 ft (ordinary minimum pool) will be used for power production. Reservoir is used for navigation, flood control, and power. Records furnished by Corps of Engineers.

Old Hickory Reservoir.--Lat 36°17'50", long 86°39'20", at Old Hickory Dam on Cumberland River, 10 miles northeast of Nashville, Davidson County, Tenn., and at mile 216.2. Drainage area, 11,700 sq mi. Records available, June 1954 to September 1956. Staff gage read four times daily. Datum of gage is 408.5 ft above mean sea level, datum of 1929. Maximum contents during year, 129,200 cfs-days Sept. 28 (elevation, 436.0 ft); minimum, 42,000 cfs-days July 21 (elevation, 407.9 ft). Maximum contents during period 1954-56, that of Sept. 28, 1956; minimum (after first filling), that of July 21, 1956.

Reservoirs in Cumberland River basin--Continued

Old Hickory Reservoir.--Continued

Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with 6 taintor gates, 41 ft high and 45 ft wide. Closure of dam was made in June 1954 and water in reservoir was raised sufficiently to maintain navigation through the lock. Total capacity at elevation 450.0 ft (maximum allowable pool) is 275,000 cfs-days of which 63,000 cfs-days between elevation 450.0 ft and 445.0 ft (normal pool) is induced surcharge storage provided to compensate for loss of natural valley storage incurred by construction of the project, and 32,000 cfs-days between elevation 445.0 ft and 442.0 ft (ordinary minimum pool) will be used for power drawdown. Reservoir is used for navigation and power. Records furnished by Corps of Engineers.

Other reservoirs.--The following reservoir in the Cumberland River basin is described below, but records of contents are not published herein:

Cheatham Reservoir on Cumberland River, 20 miles southeast of Clarksville, Montgomery County, Tenn., with total capacity of 52,000 cfs-days of which 10,000 cfs-days is controlled storage.

Month-end elevation and contents, water year October 1955 to September 1956

Date	Lake Cumberland			Dale Hollow Reservoir		
	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)
Sept.30.....	695.48	1,374,600	-	637.46	506,500	-
Oct. 31.....	688.44	1,229,200	-145,400	635.54	483,800	-22,700
Nov. 30.....	677.58	1,018,400	-210,800	633.34	458,300	-25,500
Dec. 31.....	673.11	936,200	-82,200	631.75	440,400	-17,900
Calendar year 1955	-	-	-326,800	-	-	-82,400
Jan. 31.....	684.52	1,151,200	+215,000	636.76	498,200	+57,800
Feb. 29.....	727.47	2,128,800	+977,600	650.51	675,500	+177,300
Mar. 31.....	724.20	2,044,400	-84,400	649.36	659,700	-15,800
Apr. 30.....	726.15	2,094,500	+50,100	649.93	667,500	+7,800
May 31.....	719.81	1,933,900	-160,600	647.53	634,700	-32,800
June 30.....	712.87	1,765,300	-168,600	644.45	594,000	-40,700
July 31.....	716.03	1,841,100	+75,800	644.63	596,300	+2,300
Aug. 31.....	709.64	1,689,400	-151,700	642.43	567,900	-28,400
Sept.30.....	700.40	1,480,600	-208,800	639.74	534,300	-33,600
Water year 1955-56	-	-	+106,000	-	-	+27,800

Date	Great Falls Lake			Center Hill Reservoir		
Sept.30.....	785.30	11,000	-	632.67	536,700	-
Oct. 31.....	785.43	11,100	+100	630.09	515,700	-21,000
Nov. 30.....	785.77	11,300	+200	628.19	500,400	-15,300
Dec. 31.....	784.65	10,600	-700	624.32	470,000	-30,400
Calendar year 1955	-	-	-16,700	-	-	-115,800
Jan. 31.....	806.45	28,100	+17,500	631.68	528,600	+58,600
Feb. 29.....	805.77	28,400	+300	647.30	663,900	+135,300
Mar. 31.....	795.41	18,200	-10,200	641.10	608,400	-55,500
Apr. 30.....	795.74	18,400	+200	640.83	606,000	-2,400
May 31.....	785.27	11,000	-7,400	638.20	583,200	-22,800
June 30.....	785.42	11,100	+100	637.50	577,200	-6,000
July 31.....	786.35	11,700	+600	638.00	581,500	+4,300
Aug. 31.....	784.65	10,600	-1,100	637.40	576,400	-5,100
Sept.30.....	785.25	11,000	+400	635.05	556,500	-19,900
Water year 1955-56	-	-	0	-	-	+19,800

Date	Old Hickory Reservoir		
Sept.30.....	417.8	54,700	-
Oct. 31.....	420.6	60,400	+5,700
Nov. 30.....	421.1	61,600	+1,200
Dec. 31.....	421.0	61,400	-200
Calendar year 1955	-	-	-3,000
Jan. 31.....	426.0	76,500	+15,100
Feb. 29.....	422.6	65,500	-11,000
Mar. 31.....	419.6	58,200	-7,300
Apr. 30.....	419.5	58,000	-200
May 31.....	422.0	63,900	+5,900
June 30.....	422.7	65,800	+1,900
July 31.....	408.3	42,300	-23,500
Aug. 31.....	421.2	61,900	+19,600
Sept.30.....	435.3	124,400	+62,500
Water year 1955-56	-	-	+69,700

† Elevation at 12 p.m.

French Broad River at Rosman, N. C.

Location.--Lat 35°08'32", long 82°49'28", on left bank at upstream side of bridge on U. S. Highway 178 at Rosman, Transylvania County, 1.0 mile upstream from East Fork and at mile 216.4.

Drainage area.--67.9 sq mi.

Records available.--May 1907 to June 1909, January 1936 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,173.83 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to June 30, 1909, staff gage at site 500 ft downstream at different datum. Jan. 1, 1936, to July 6, 1937, wire-weight gage at present site and datum.

Average discharge.--21 years (1907-8, 1936-56), 228 cfs.

Extremes.--Maximum discharge during year, 2,700 cfs Apr. 15 (gage height, 7.78 ft); minimum, 46 cfs Sept. 23 (gage height, 1.62 ft).
1907-9, 1936-56: Maximum discharge, 9,410 cfs Aug. 30, 1940 (gage height, 11.86 ft), from rating curve extended above 3,300 cfs on basis of slope-area determination of peak flow; minimum, 23 cfs Jan. 3, 1940 (gage height, 1.51 ft), result of freezeup; minimum daily, 37 cfs Sept. 25-28, Oct. 5, 6, 25, 26, 1954.
Maximum stage known, 13.9 ft in July 1916, from floodmarks.

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

Revisions (water years).--WSP 823: Drainage area. WSP 893: 1936(M), 1938(M), 1939.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	42	2.7	332
1.7	60	3.0	432
1.9	100	4.0	792
2.1	150	4.5	1,000
2.4	238		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	172	87	b87	b70	*94	*241	175	*214	153	124	*100	73
2	110	*87	92	b70	291	247	*172	229	145	*124	98	66
3	*102	85	94	*71	278	238	167	323	140	127	96	64
4	98	85	122	70	316	238	172	284	*140	164	92	62
5	96	83	*129	68	288	217	164	241	137	153	105	*66
6	102	83	105	66	783	211	382	250	140	237	92	132
7	134	90	98	66	480	205	284	335	137	277	81	92
8	269	87	96	b55	306	214	232	288	129	211	77	73
9	147	85	107	b65	250	193	214	257	127	202	75	68
10	119	112	94	b65	214	187	202	241	124	158	73	62
11	110	110	b90	68	374	184	363	229	127	140	88	60
12	105	92	b85	68	281	175	281	214	127	127	85	60
13	102	90	b90	66	238	184	257	205	124	127	71	58
14	105	94	b90	b65	211	275	244	196	132	127	71	55
15	98	98	b85	b65	193	250	659	187	147	119	119	53
16	96	92	b85	b65	178	514	956	178	119	122	100	51
17	94	90	b100	b65	364	365	504	172	114	132	71	51
18	94	85	92	70	476	303	412	170	117	110	70	51
19	94	98	87	96	375	269	355	164	153	155	73	51
20	92	94	83	85	487	247	322	161	147	170	68	51
21	90	90	79	75	372	232	303	158	149	156	79	47
22	87	85	79	73	313	220	288	156	156	134	79	47
23	87	100	79	83	275	208	272	150	129	122	68	101
24	87	107	79	98	260	208	260	203	127	114	64	96
25	87	100	79	85	314	193	250	172	127	105	62	150
26	87	110	77	81	291	187	241	164	122	114	62	501
27	87	98	75	79	284	181	229	167	112	107	60	142
28	87	94	73	79	297	178	226	153	102	98	68	107
29	127	b85	75	81	257	235	220	172	119	94	70	94
30	96	b85	75	96	-------	202	217	187	145	105	70	85
31	90	-------	73	92	-------	184	-------	181	-------	110	79	-------
Total	3,351	2,781	2,754	2,301	9,140	7,185	9,023	6,401	3,967	4,365	2,466	2,669
Mean	108	92.7	88.8	74.2	315	232	301	206	132	141	79.5	89.0
Cfsm	1.59	1.37	1.31	1.09	4.64	3.42	4.43	3.03	1.94	2.08	1.17	1.31
In.	1.84	1.52	1.51	1.26	5.01	3.94	4.94	3.51	2.17	2.39	1.35	1.46

Calendar year 1955: Max 1,410 Min 70 Mean 192 Cfsm 2.83 In. 38.39
Water year 1955-56: Max 956 Min 47 Mean 154 Cfsm 2.27 In. 30.90

Peak discharge (base, 2,000 cfs).--Apr. 15 (10:30 p.m.) 2,700 cfs (7.78 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Davidson River near Brevard, N. C.

Location.--Lat 35°16'23", long 82°42'21", on right bank 150 ft upstream from State Highway 280, 2.0 miles upstream from mouth, 2.1 miles downstream from Avery Creek, and 3.3 miles northeast of Brevard, Transylvania County.

Drainage area.--40.4 sq mi.

Records available.--December 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,115.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Apr. 4, 1929, staff gage and Apr. 4, 1929, to May 17, 1934, chain gage, at site 50 ft downstream at same datum.

Average discharge.--35 years (1921-56), 125 cfs.

Extremes.--Maximum discharge during year, 2,030 cfs Apr. 15 (gage height, 4.77 ft); minimum, 21 cfs Sept. 21-23 (gage height, 0.43 ft).
1920-56: Maximum discharge, 8,400 cfs Aug. 15, 1928 (gage height, 11.8 ft), from rating curve extended above 1,300 cfs; minimum, 13 cfs Oct. 11, 1954 (gage height, 0.31 ft).

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

Revisions (water years).--WSP 823: Drainage area. WSP 1336: 1921, 1922(M), 1923, 1924-25(M), 1926, 1927(M), 1929-32(M).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	18	1.5	247
.6	42	2.0	405
.8	74	2.5	595
1.0	116	3.0	825

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	39	b38	b35	*45	*128	96	*126	76	110	*50	37
2	60	*39	42	b35	152	130	*94	142	71	*112	46	36
3	*50	38	46	*37	148	130	90	230	69	80	45	29
4	45	38	71	37	186	126	92	230	69	103	45	29
5	44	38	*72	37	162	114	86	173	*67	129	44	*36
6	46	38	54	36	514	112	188	160	66	116	41	82
7	75	42	50	36	289	107	148	210	64	118	38	56
8	212	39	46	b28	175	116	123	181	62	109	36	38
9	84	38	56	b35	140	103	112	160	60	114	36	33
10	66	58	46	b35	118	101	107	148	66	96	34	29
11	57	51	45	36	227	98	140	138	62	82	33	29
12	52	42	b45	36	168	94	186	130	59	74	38	28
13	52	41	b45	34	138	94	160	123	57	71	41	27
14	52	44	b43	b30	118	152	148	116	59	71	39	26
15	48	44	b40	b30	107	148	413	109	84	66	54	25
16	48	41	b43	34	101	300	675	105	60	64	42	24
17	46	39	b58	34	241	213	320	98	56	74	37	24
18	45	38	51	33	296	175	253	96	52	56	36	22
19	45	45	46	44	221	152	215	92	66	62	53	24
20	44	41	44	42	253	135	191	90	66	80	44	24
21	42	38	42	38	199	126	175	90	66	66	38	21
22	42	38	41	37	170	121	165	88	72	56	36	21
23	41	46	41	42	148	114	152	84	76	52	33	22
24	41	50	41	52	142	112	145	96	66	50	32	27
25	39	45	41	42	184	103	138	90	84	54	30	68
26	39	48	41	41	170	101	133	86	71	46	30	216
27	39	44	39	39	160	96	128	90	62	44	29	66
28	39	41	38	39	162	94	123	84	52	41	29	48
29	59	b38	39	39	138	140	121	88	85	45	30	41
30	45	b36	39	51	-------	112	133	86	96	51	29	37
31	41	-------	b35	48	-------	103	-------	76	-------	54	30	-------
Total	1,728	1,257	1,418	1,172	5,272	3,950	5,250	3,815	2,021	2,346	1,178	1,225
Mean	55.7	41.9	45.7	37.8	182	127	175	123	67.4	75.7	38.0	40.8
Cfsm	1.38	1.04	1.13	0.936	4.50	3.14	4.33	3.04	1.67	1.87	0.941	1.01
In.	1.59	1.16	1.31	1.08	4.85	3.64	4.83	3.51	1.86	2.16	1.08	1.13

Calendar year 1955: Max 636 Min 35 Mean 102 Cfsm 2.52 In. 34.21
Water year 1955-56: Max 675 Min 21 Mean 83.7 Cfsm 2.07 In. 28.20

Peak discharge (base, 1,000 cfs).--Apr. 15 (10 p.m.) 2,030 cfs (4.77 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

French Broad River at Blantyre, N. C.

Location.--Lat 35°17'56", long 82°37'27", on left bank at upstream side of highway bridge, 700 ft east of Blantyre railroad station, Transylvania County, 3.4 miles downstream from Little River, and at mile 183.7.

Drainage area.--296 sq mi.

Records available.--December 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,060.32 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--35 years (1921-56), 921 cfs.

Extremes.--Maximum discharge during year, 3,900 cfs Apr. 16; maximum gage height 15.29 ft Apr. 16; minimum discharge, 155 cfs Jan. 9 (gage height, 2.74 ft), result of freezeup.
1920-56: Maximum discharge, 26,500 cfs Aug. 16, 1928 (gage height, 22.9 ft), from rating curve extended above 11,500 cfs; minimum, 119 cfs Oct. 11, 1954 (gage height, 2.36 ft).
Maximum stage known, 27.1 ft in July 1916, from floodmarks.

Remarks.--Records excellent. Considerable diurnal fluctuation at low flow caused by powerplant above station.

Revisions (water years).--WSP 923: 1921-23, 1929, 1933, 1935-36(M), 1938, 1940.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Rate of change in stage used as a factor Feb. 4-8, 11, 12, 17-21, 25, 26, Mar. 16, 17, Apr. 6, 7, 11, 12, 15-18, May 3, 7, Sept. 26, 27)

2.7	150	8.0	1,340
3.0	190	10.0	1,980
4.0	351	12.0	2,600
5.0	541	14.0	3,310
6.0	780	15.2	3,830

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	495	*294	292	222	*302	964	626	855	541	456	405	263
2	422	292	321	237	783	*929	617	*832	521	515	*346	244
3	405	290	344	*260	1,170	902	*643	1,150	483	485	337	222
4	434	287	355	258	1,300	926	675	1,160	451	515	326	240
5	365	276	449	252	1,360	848	602	978	*477	564	289	240
6	*365	245	*396	250	2,590	814	1,000	905	475	*573	328	*358
7	383	261	355	247	3,170	809	1,430	1,220	477	858	306	430
8	702	299	338	207	1,640	745	983	1,220	449	672	287	330
9	545	287	356	194	1,150	705	868	1,020	437	698	276	247
10	400	319	338	256	948	665	816	953	396	591	268	230
11	385	432	277	258	1,300	655	1,490	902	413	507	263	242
12	365	335	277	252	1,370	641	1,660	840	441	468	276	231
13	353	272	294	248	1,050	662	1,260	752	424	441	274	226
14	360	296	294	237	892	950	1,100	785	437	418	280	214
15	337	347	309	201	816	994	1,310	750	535	430	276	204
16	289	335	290	219	765	1,800	*3,790	662	452	470	413	172
17	294	324	256	237	1,260	1,830	*3,070	631	369	495	296	177
18	318	311	274	240	2,130	1,310	*1,860	638	371	435	268	194
19	316	314	284	277	1,740	1,120	1,530	629	439	416	266	196
20	309	299	292	346	2,010	858	1,340	591	564	600	308	194
21	304	279	282	274	1,710	913	1,200	598	462	537	287	189
22	296	306	277	225	1,340	866	1,130	629	473	473	294	180
23	263	309	277	247	1,140	824	1,060	589	607	407	264	160
24	269	383	274	364	1,030	801	996	571	660	428	250	296
25	285	347	250	335	1,070	715	959	678	577	413	237	310
26	282	365	256	308	1,260	675	932	598	531	373	208	2,000
27	282	309	271	294	1,090	692	900	609	454	378	213	1,040
28	282	301	266	274	1,230	708	879	580	396	351	231	600
29	355	316	263	244	1,060	829	798	582	391	304	313	456
30	326	296	271	268	-------	745	842	609	511	364	253	333
31	279	-------	261	338	-------	658	-------	586	-------	426	292	-------
Total	11,065	9,326	9,339	8,069	38,676	27,553	36,366	24,102	14,214	15,061	8,930	10,418
Mean	357	311	301	260	1,334	889	1,212	777	474	486	288	347
Cfsm	1.21	1.05	1.02	0.878	4.51	3.00	4.09	2.62	1.60	1.64	0.973	1.17
In.	1.39	1.17	1.17	1.01	4.86	3.46	4.57	3.03	1.79	1.89	1.12	1.31

Calendar year 1955: Max 4,480 Min 245 Mean 730 Cfsm 2.47 In. 33.48
Water year 1955-56: Max 3,790 Min 160 Mean 582 Cfsm 1.97 In. 26.77

Peak discharge (base, 4,300 cfs).--No peak above base.
* Discharge measurement made on this day.

Mills River near Mills River, N. C.

Location.--Lat 35°23'45", long 82°35'25", on right bank 1.4 miles downstream from confluence of North and South Forks, 2.2 miles upstream from village of Mills River, Henderson County, and 4.2 miles northwest of Horseshoe.

Drainage area.--66.7 sq mi.

Records available.--September 1924 to September 1926, May 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,088.47 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Sept. 9, 1924, to Sept. 30, 1926, staff gage at site 500 ft upstream at datum 2.97 ft higher.

Average discharge.--24 years, 155 cfs.

Extremes.--Maximum discharge during year, 1,740 cfs Apr. 16 (gage height, 5.13 ft); minimum, 17 cfs Jan. 8 (gage height, 1.34 ft), result of freezeup.
1924-26, 1934-56: Maximum discharge, 13,400 cfs Aug. 30, 1940 (gage height, 13.62 ft), from rating curve extended above 5,500 cfs on basis of slope-area determination of peak flow; minimum, 16 cfs Dec. 24, 1943 (gage height, 1.33 ft), result of freezeup; minimum daily, 18 cfs Sept. 30, 1954.

Remarks.--Records excellent except those for periods of ice effect, which are good. City of Hendersonville diverted from North Fork and Bradley Creek (tributary to South Fork) about 4 cfs for water supply.

Revisions (water years).--WSP 823: Drainage area. WSP 923: 1935, 1937, 1939. WSP 1003: 1938, 1940-42. WSP 1143: 1940(P). WSP 1276: 1926.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	28	2.5	243
1.6	38	3.0	447
1.8	65	3.5	705
2.0	102	4.0	1,030

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	*49	b46	b35	53	*143	118	*165	98	94	*74	50
2	82	49	b55	b40	123	138	*120	188	96	*104	70	58
3	67	49	59	44	176	135	118	268	94	88	68	49
4	58	49	70	*40	*201	143	116	306	90	82	65	48
5	54	48	*79	40	198	125	111	230	90	107	64	*50
6	54	48	60	40	*502	123	218	207	*88	167	59	135
7	*58	53	56	b40	380	120	191	247	84	138	54	114
8	163	53	53	b28	226	135	159	217	86	109	52	68
9	84	49	65	b40	176	120	146	198	82	100	50	56
10	64	65	b53	b40	146	118	138	185	86	86	50	50
11	59	75	b43	46	276	116	303	176	86	77	86	48
12	56	56	b43	45	243	116	295	168	77	72	77	46
13	56	53	b48	b40	191	109	243	162	74	68	58	43
14	60	53	b50	b30	162	171	223	151	72	70	53	42
15	53	56	b45	b32	146	179	400	146	90	77	62	40
16	53	52	b40	b35	133	338	*1,020	141	86	82	65	37
17	52	50	b50	b35	199	295	484	133	80	79	53	36
18	52	49	b50	b40	257	226	368	130	72	65	50	36
19	50	53	53	52	217	194	310	125	102	89	65	35
20	50	54	49	53	247	176	272	123	88	182	70	35
21	49	50	b42	b40	210	159	247	120	79	123	65	33
22	48	49	b44	b40	185	151	230	116	107	100	58	33
23	48	50	b45	52	168	146	217	111	104	86	50	34
24	48	56	48	65	159	141	201	114	92	87	48	36
25	48	53	48	53	185	133	191	118	79	172	45	71
26	48	54	48	49	201	128	185	111	80	102	45	393
27	48	50	45	44	176	123	176	114	77	88	46	182
28	48	49	44	49	176	120	171	114	65	77	49	114
29	67	b43	44	49	154	157	165	114	64	74	54	86
30	58	b38	45	56	-------	133	165	114	75	77	56	74
31	52	----	b40	58	-------	123	-------	102	-------	75	52	-------
Total	1,885	1,555	1,560	1,350	5,866	4,734	7,301	4,914	2,543	2,997	1,813	2,132
Mean	60.8	51.8	50.3	43.5	202	153	243	159	84.8	96.7	58.5	71.1
Cfsm	0.912	0.777	0.754	0.652	3.03	2.29	3.64	2.38	1.27	1.45	0.877	1.07
In.	1.05	0.87	0.87	0.75	3.27	2.64	4.07	2.74	1.42	1.67	1.01	1.19

Calendar year 1955: Max 700 Min 38 Mean 123 Cfsm 1.84 In. 25.05
Water year 1955-56: Max 1,020 Min 28 Mean 106 Cfsm 1.59 In. 21.55

Peak discharge (base, 1,000 cfs).--Apr. 16 (1:30 a.m.) 1,740 cfs (5.13 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Cane Creek at Fletcher, N. C.

Location.--Lat 35°26'08", long 82°29'23", on right bank at downstream side of highway bridge, 0.5 mile upstream from Hooper Creek, 0.5 mile northeast of Fletcher, Henderson County, and 0.8 mile downstream from county line.

Drainage area.--63.1 sq mi.

Records available.--October 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,072.22 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--14 years, 72.7 cfs.

Extremes.--Maximum discharge during year, 2,130 cfs Apr. 16 (gage height, 7.88 ft); minimum, 9.4 cfs Sept. 21.
1942-56: Maximum discharge, 2,900 cfs Jan. 22, 1954 (gage height, 8.52 ft); minimum, that of Sept. 21, 1956.
Floods of July 1916 and Aug. 30, 1940, reached stages of 14.8 and 9.4 ft, respectively, from high-water marks and flood profiles by Tennessee Valley Authority.

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

Revisions (water years).--WSP 1276: 1943(M), 1946(M), 1949(P), 1951-52(M).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.3	8.0	2.0	360
.4	15	2.5	485
.6	39	3.0	610
1.0	119	4.0	870
1.5	236		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	19	b23	22	21	41	41	64	41	26	23	14
2	35	19	25	21	48	*41	46	*65	35	38	*20	13
3	25	*19	25	20	58	42	*46	250	33	29	19	14
4	22	19	32	*20	*93	48	42	234	33	32	20	14
5	21	19	31	20	86	41	41	124	32	28	19	14
6	22	20	*24	20	291	39	110	99	*32	*33	17	*43
7	22	23	24	20	135	39	86	93	29	44	15	26
8	35	22	23	b15	*80	48	68	80	29	32	14	18
9	25	21	36	b20	64	42	58	74	29	44	14	16
10	21	40	26	b20	54	41	54	70	33	33	13	14
11	21	35	24	22	78	41	388	64	31	25	29	14
12	20	25	b24	22	64	41	218	60	28	23	25	14
13	22	23	b23	b22	54	42	133	56	26	23	17	12
14	23	24	b23	b25	49	82	101	54	25	29	15	12
15	20	24	b20	b23	46	97	447	51	26	66	63	12
16	20	23	b18	b18	42	269	795	49	31	54	29	11
17	20	22	b21	b20	78	140	226	44	28	42	18	11
18	20	21	23	b20	89	99	154	42	24	29	17	11
19	20	26	22	25	76	82	119	41	29	28	17	11
20	20	25	21	23	128	72	104	42	29	44	17	12
21	*20	24	20	20	91	64	99	41	29	51	22	10
22	18	24	22	20	72	58	95	39	48	36	18	11
23	17	24	20	25	60	54	93	39	77	32	15	11
24	17	25	20	31	54	54	89	44	57	32	14	12
25	16	25	21	25	60	49	86	41	31	32	14	32
26	17	29	21	23	54	49	84	38	33	28	14	212
27	18	25	20	22	51	46	80	39	29	25	13	89
28	18	25	19	23	51	46	78	36	25	22	14	44
29	33	b23	20	23	44	51	72	33	83	20	18	33
30	20	b25	21	23	------	46	68	38	41	21	15	28
31	19	------	20	21	------	41	------	51	------	22	15	------
Total	679	718	712	674	2,171	1,945	4,121	2,095	1,056	1,023	593	788
Mean	21.9	23.9	23.0	21.7	74.9	62.7	137	67.6	35.2	33.0	19.1	26.3
Cfsm	0.347	0.379	0.365	0.344	1.19	0.994	2.17	1.07	0.558	0.523	0.303	0.417
In.	0.40	0.42	0.42	0.40	1.28	1.15	2.43	1.23	0.62	0.60	0.35	0.46

Calendar year 1955: Max 412 Min 16 Mean 41.5 Cfsm 0.658 In. 8.92
Water year 1955-56: Max 795 Min 10 Mean 45.3 Cfsm 0.718 In. 9.76

Peak discharge (base, 800 cfs).--Apr. 16 (12:30 a.m.) 2,130 cfs (7.88 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

French Broad River at Bent Creek, N. C.

Location.--Lat 35°30'07", long 82°35'35", on left bank 50 ft downstream from Bent Creek, 6.2 miles upstream from Hominy Creek, 6.7 miles south of Asheville, Buncombe County, and at mile 157.7.

Drainage area.--676 sq mi.

Records available.--May 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,995.91 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--22 years, 1,582 cfs.

Extremes.--Maximum discharge during year, 8,160 cfs Apr. 16 (gage height, 7.23 ft); minimum, 290 cfs Sept. 23, 24 (gage height, 2.25 ft).
1934-56: Maximum discharge, 23,600 cfs Aug. 14, 1940 (gage height, 12.6 ft); minimum, 230 cfs Oct. 4, 5, 10, 11, 12, 1954 (gage height, 2.05 ft).
Maximum stage known, about 27.3 ft July 15, 1916, from floodmarks. Flood of August 1928 reached a stage of about 16.1 ft, from floodmarks.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Some diurnal fluctuation caused by powerplant above station.

Revisions.--WSP 823: Drainage area.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 6, Apr. 17 to Sept. 30				Feb. 7 to Apr. 16			
2.2	265	3.5	1,450	3.0	955	5.0	3,790
2.3	315	4.0	2,170	3.5	1,550	6.0	5,670
2.5	440	5.0	3,790	4.0	2,220	7.0	7,680
2.7	585	6.0	5,670				
3.0	850	7.0	7,680				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	701	510	525	454	562	1,500	1,020	1,260	940	784	657	525
2	802	510	555	440	878	1,410	997	1,260	870	822	617	489
3	728	510	585	461	1,700	1,370	1,020	1,960	822	802	578	440
4	a700	503	609	475	1,930	1,360	1,040	2,470	755	764	562	434
5	a680	503	683	468	2,200	1,300	1,020	1,800	764	983	540	434
6	a600	496	701	461	3,680	1,190	1,400	1,580	755	1,010	510	601
7	a620	475	641	468	5,330	1,150	2,400	1,730	755	1,630	525	755
8	a850	503	609	b400	3,510	1,140	1,680	2,000	737	1,230	496	593
9	a1,160	518	625	b380	1,970	1,080	1,420	1,690	719	1,040	475	496
10	a780	548	641	b480	1,590	1,020	1,300	1,520	764	1,060	468	408
11	633	728	585	b460	1,840	997	2,720	1,450	755	831	525	401
12	601	649	525	b430	2,330	986	3,680	1,350	737	755	562	401
13	578	562	540	b410	1,740	976	2,400	1,230	728	719	496	394
14	593	525	540	b400	1,470	1,250	1,970	1,210	710	737	475	375
15	585	578	548	394	1,300	1,550	2,250	1,190	764	764	482	357
16	548	593	548	388	1,190	2,740	7,470	1,110	755	950	578	333
17	518	570	555	b370	1,530	3,270	5,950	1,030	746	870	*585	*310
18	525	562	503	*447	3,030	2,250	3,830	*1,000	*649	802	496	310
19	532	562	518	482	2,820	1,850	2,580	1,000	692	774	461	315
20	532	578	518	562	2,920	1,800	*2,180	994	860	983	540	315
21	525	540	*510	548	*2,840	*1,460	1,920	961	850	1,100	532	315
22	518	532	496	482	2,160	1,360	1,760	994	920	961	518	310
23	503	540	496	468	1,800	1,290	1,650	961	930	793	496	300
24	482	585	496	578	1,600	1,240	1,520	961	1,060	*746	461	305
25	*482	617	496	617	1,550	1,170	1,440	1,030	880	900	440	475
26	489	609	482	570	1,840	1,090	1,370	1,030	870	701	427	2,700
27	489	601	482	548	1,650	1,060	1,320	1,020	822	649	408	2,320
28	489	548	482	540	1,710	1,070	1,270	1,000	692	609	427	1,060
29	570	540	482	525	1,690	1,170	1,220	1,000	641	562	548	802
30	633	*532	482	518	------	1,240	1,180	994	774	555	617	625
31	532	------	489	548	------	1,080	------	1,230	------	617	548	------
Total	18,978	16,627	16,947	14,772	60,360	43,219	62,977	40,015	23,716	26,503	16,050	17,898
Mean	612	554	547	477	2,081	1,394	2,099	1,291	791	855	518	597
Cfsm	0.905	0.820	0.809	0.706	3.08	2.06	3.11	1.91	1.17	1.26	0.766	0.883
In.	1.04	0.91	0.93	0.81	3.32	2.38	3.46	2.20	1.30	1.46	0.88	0.98

Calendar year 1955: Max 6,600 Min 471 Mean 1,186 Cfsm 1.75 In. 23.80
Water year 1955-56: Max 7,470 Min 300 Mean 978 Cfsm 1.45 In. 19.67

Peak discharge (base, 6,000 cfs).--Apr. 16 (7:30 a.m.) 8,160 cfs (7.23 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for stations at Asheville and Blantyre.
b Stage-discharge relation affected by ice.

Hominy Creek at Candler, N. C.

Location.--Lat 35°32'28", long 82°40'35", on left bank 0.1 mile downstream from Pole Creek and 1.0 mile east of Candler, Buncombe County.

Drainage area.--79.8 sq mi.

Records available.--October 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,065.83 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--14 years, 84.3 cfs.

Extremes.--Maximum discharge during year, 935 cfs Apr. 15 (gage height, 3.50 ft); minimum, 15 cfs Aug. 27 (gage height, 0.82 ft).
1942-56: Maximum discharge, 6,800 cfs June 16, 1949 (gage height, 13.25 ft); minimum, 13 cfs Sept. 2, 1953 (gage height, 0.80 ft).
Flood of Aug. 30, 1940, reached a stage of 18.0 ft, from floodmarks (discharge, 13,100 cfs by conveyance method).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Numerous small diversions for irrigation above station.

Revisions--WSP 1113: Drainage area.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 11				Apr. 12 to Sept. 30			
0.9	19	1.6	130	0.8	14	1.8	185
1.0	27	1.8	180	1.0	30	2.0	240
1.2	52	2.0	237	1.2	56	2.3	340
1.4	88			1.4	92	2.6	463
				1.6	135		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	27	a29	b25	31	59	52	84	50	52	28	32
2	35	27	29	b26	62	57	57	92	49	42	26	29
3	30	27	29	26	78	62	55	135	46	35	25	23
4	26	27	44	25	88	60	57	113	43	58	25	22
5	25	27	39	b25	82	55	52	107	42	67	24	22
6	25	27	32	*b25	198	52	100	92	40	125	22	52
7	26	36	31	25	130	51	84	*90	40	79	20	43
8	46	32	30	b20	88	78	71	86	38	52	*20	30
9	31	29	a40	b22	73	59	66	79	38	59	19	26
10	27	45	a36	b23	*62	55	62	73	42	46	20	24
11	*26	41	a33	25	96	54	198	71	41	37	34	23
12	26	32	a31	25	80	52	159	68	35	34	28	22
13	26	29	*a35	25	69	52	*140	66	34	34	23	*21
14	27	31	b30	b22	62	77	128	63	38	62	20	20
15	26	32	b25	b23	57	101	239	59	48	64	20	18
16	27	*30	b25	b23	54	196	445	58	50	56	23	18
17	27	32	b35	b25	110	147	232	55	40	53	19	18
18	27	29	32	b25	121	121	180	53	34	*40	18	17
19	27	41	30	32	100	100	147	52	36	80	20	17
20	27	32	28	29	137	88	128	50	*40	64	21	17
21	26	30	27	25	108	*80	115	49	49	50	28	16
22	25	29	b26	b25	90	75	109	48	43	41	24	17
23	25	32	b26	30	78	71	100	46	37	38	20	18
24	25	32	27	42	71	71	94	52	34	34	18	26
25	25	31	27	36	84	64	88	52	46	35	17	53
26	25	35	27	31	75	62	86	49	35	38	16	272
27	25	31	27	29	69	60	82	49	34	34	16	135
28	25	30	25	28	69	57	79	52	28	28	35	61
29	32	a29	25	29	62	66	75	50	48	26	42	46
30	28	a29	27	34	------	59	82	49	61	27	69	37
31	27	-	b26	31	-- ---	55	--------	46	- ----	28	38	
Total	861	941	933	836	2,484	2,296	3,562	2,088	1,239	1,518	778	1,175
Mean	27.8	31.4	30.1	27.0	85.7	74.1	119	67.4	41.3	49.0	25.1	39.2
Cfsm	0.348	0.393	0.377	0.338	1.07	0.929	1.49	0.845	0.518	0.614	0.315	0.491
In.	0.40	0.44	0.43	0.39	1.16	1.07	1.66	0.97	0.58	0.71	0.36	0.55

Calendar year 1955: Max 411 Min 20 Mean 58.3 Cfsm 0.731 In. 9.91
Water year 1955-56: Max 445 Min 16 Mean 51.1 Cfsm 0.640 In. 8.72

Peak discharge (base, 900 cfs).--Apr. 15 (11:30 p.m.) 935 cfs (3.50 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Mills River near Mills River.
b Stage-discharge relation affected by ice.

North Fork Swannanoa River near Black Mountain, N. C.

Location.--Lat 35°39'11", long 82°21'04", on left bank 0.1 mile downstream from Walker Branch, 0.8 mile downstream from Burnett Dam, 1.9 miles downstream from Sugar Fork, 3.0 miles northwest of town of Black Mountain, Buncombe County, and 3.4 miles downstream from Right Fork.

Drainage area.--23.8 sq mi.

Records available.--January 1926 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 2,428.03 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--30 years, 47.3 cfs (unadjusted).

Extremes.--Maximum discharge during year, 531 cfs Apr. 16 (gage height, 3.22 ft); minimum, 1.6 cfs Oct. 28 (gage height, 0.94 ft).

1926-56: Maximum discharge, 16,500 cfs June 16, 1949 (gage height, 9.10 ft), from rating curve extended above 2,600 cfs on basis of slop-area determinations at gage heights 8.55 and 9.10 ft; minimum, 0.6 cfs Sept. 17, 1953 (gage height, 0.83 ft).

Remarks.--Records good except those for periods of ice effect, which are fair. City of Asheville diverted part of its water supply by gravity from four main tributaries with a combined drainage area of 16.4 sq mi at points 1.9 to 4.0 miles upstream, and after Aug. 6 by pumping from Burnett Lake (see p. 231).

Revisions (water years).--WSP 823: Drainage area. WSP 893: 1926. WSP 1143: 1927-28, 1929(M), 1930, 1931-32(M), 1933-34, 1935(M), 1940(P), 1941-45(M), 1946-47(P). WSP 1336: 1927.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	1.2	1.7	22
1.0	2.3	1.8	36
1.1	3.5	2.1	66
1.2	5.1	2.3	118
1.3	7.3	2.6	231
1.4	10	2.9	369
1.5	13	3.2	520

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	2.3	5.1	8.4	10	52	46	41	14	15	3.0	2.1
2	4.8	2.3	5.5	8.6	16	47	47	43	12	11	3.1	2.1
3	4.3	*2.7	5.5	8.4	64	46	48	*66	9.7	8.6	*2.9	2.1
4	3.8	2.2	8.4	8.9	121	48	*44	80	8.9	6.9	2.4	2.1
5	3.7	2.1	18	*6.9	138	*44	41	73	8.4	*14	2.5	2.8
6	3.4	2.0	19	6.2	223	41	57	64	7.8	13	2.8	4.7
7	3.5	2.1	*16	b5.5	*249	40	78	59	*7.6	10	2.1	3.4
8	23	2.1	15	b4.5	141	80	68	53	6.6	7.8	2.1	2.7
9	22	2.1	b16	b4.0	96	90	59	46	6.6	6.9	2.0	2.4
10	14	3.5	b12	b3.5	73	73	53	42	24	5.3	1.9	*2.4
11	10	4.5	12	b3.0	76	62	83	40	20	4.3	2.1	2.3
12	7.6	4.1	11	b2.6	80	57	96	36	13	3.7	2.0	2.3
13	6.2	3.8	9.2	b2.4	68	53	96	34	10	3.8	1.9	2.3
14	5.1	4.6	8.1	2.2	57	80	101	31	8.6	12	1.9	2.2
15	4.1	4.9	b7.0	2.0	48	112	153	29	7.1	23	2.9	2.1
16	3.5	4.9	b6.0	2.0	44	288	443	27	6.4	19	2.3	2.1
17	3.0	5.5	b5.5	2.0	66	266	244	23	5.8	23	2.6	2.1
18	3.0	3.4	6.0	1.8	162	178	166	20	5.5	20	2.1	2.1
19	3.0	5.5	6.2	2.0	151	134	128	18	5.3	15	2.1	3.3
20	*2.5	6.2	5.8	2.0	131	104	104	18	5.1	14	2.1	2.5
21	2.7	6.6	5.5	1.9	107	85	88	17	5.1	15	2.4	2.4
22	2.4	6.6	5.3	1.9	85	78	78	16	4.9	12	2.2	2.4
23	2.2	7.1	5.1	2.2	71	73	68	15	4.8	11	2.1	2.5
24	3.1	7.3	4.9	3.0	62	73	61	16	4.9	9.5	2.0	2.5
25	2.5	7.8	5.1	3.4	73	68	55	15	4.5	7.8	2.0	4.3
26	2.3	9.5	5.1	3.7	101	62	50	14	4.0	6.2	2.0	11
27	2.1	10	5.3	3.4	85	59	46	13	3.8	4.8	2.3	5.5
28	2.2	11	5.5	3.7	71	59	42	13	3.3	4.3	2.4	4.0
29	3.1	8.4	5.8	4.1	61	62	42	12	3.5	3.1	2.3	3.5
30	2.9	6.4	7.8	5.5	-------	59	41	12	16	2.7	2.2	3.1
31	2.5	-------	8.1	8.1	-------	52	-------	12	-------	2.9	2.1	-------
Total	163.1	151.5	260.8	127.8	2,730	2,625	2,726	998	247.2	315.6	70.8	91.3
Mean	5.26	5.05	8.41	4.12	94.1	84.7	90.9	32.2	8.24	10.2	2.28	3.04
(†)	+278.4	+288.6	+309.8	+295.0	+364.2	+338.2	+339.6	+339.5	+326.1	+339.4	+181.2	+541.6

Adjusted for diversion, evaporation, and change in reservoir contents

Mean	14.2	14.7	18.4	13.6	107	95.6	102	43.1	19.1	21.1	8.13	21.0
Cfsm	0.597	0.618	0.773	0.571	4.50	4.02	4.29	1.81	0.803	0.887	0.342	0.887
In.	0.69	0.69	0.89	0.66	4.84	4.63	4.79	2.09	0.90	1.02	0.39	0.99

	Observed						Adjusted				
Calendar year 1955:	Max	322	Min	1.8	Mean	33.0	Mean	45.3	Cfsm	1.90	In. 25.81
Water year 1955-56:	Max	443	Min	1.8	Mean	28.7	Mean	39.5	Cfsm	1.66	In. 22.58

* Discharge measurement made on this day.

† Diversion by city of Asheville and evaporation and change in contents in Burnett Lake, equivalent in cfs-days. Records of diversion and change in contents in Burnett Lake furnished by city of Asheville, Division of Watersheds. Records of evaporation furnished by Tennessee Valley Authority.

b Stage-discharge relation affected by ice.

Beetree Creek near Swannanoa, N. C.

Location.--Lat 35°39'11", long 82°24'20", on left bank 1,000 ft upstream from Beetree Reservoir and 3.8 miles north of Swannanoa, Buncombe County.

Drainage area.--5.46 sq mi.

Records available.--February 1926 to September 1956.

Gage.--Water-stage recorder and modified Parshall flume set in masonry control. Datum of gage is 2,728.39 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--30 years, 10.2 cfs.

Extremes.--Maximum discharge during year, 132 cfs Apr. 15 (gage height, 3.30 ft); minimum, 0.4 cfs Sept. 18 (gage height, 0.29 ft).
1926-56: Maximum discharge, 1,370 cfs Aug. 13, 1940 (gage height, 6.20 ft), from rating curve extended above 240 cfs on basis of computation of peak flow over weir; minimum, 0.3 cfs Sept. 29, 30, Oct. 1, 1954 (gage height, 0.26 ft).

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

Revisions (water years).--WSP 823: Drainage area. WSP 893: 1928, 1936-37(M). WSP 953: 1929(M). WSP 1276: 1932.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.3	0.5	1.3	11
.4	1.0	1.6	17
.5	1.6	2.0	26
.6	2.4	2.5	43
.8	4.4	3.0	84
1.0	7.0		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	1.4	b2.0	3.1	4.9	11	11	11	5.4	2.2	2.0	0.8
2	1.9	1.3	b2.3	3.1	7.8	11	12	11	4.5	3.2	1.7	.8
3	1.8	*1.3	2.8	3.1	a13	11	12	*21	4.1	3.4	*1.6	.7
4	1.5	1.2	4.9	3.0	a15	11	*11	19	3.9	3.5	1.7	.7
5	1.4	1.2	5.6	*2.8	a14	*9.8	10	17	3.7	4.1	1.6	.7
6	1.5	1.3	4.3	2.8	*40	9.5	15	16	3.6	3.8	1.5	2.4
7	1.7	1.7	*4.1	2.8	26	9.2	14	14	*3.5	3.1	1.3	2.3
8	6.8	1.6	4.1	b2.0	a16	26	13	13	3.3	2.6	1.2	1.2
9	2.5	1.4	5.2	b1.8	a15	20	12	12	3.1	3.1	1.1	1.0
10	1.9	2.9	4.1	b2.1	14	17	12	11	3.0	2.7	1.0	*.8
11	1.6	2.9	3.9	2.4	15	15	22	11	2.7	2.1	1.0	.8
12	1.5	2.2	b3.5	2.4	13	14	24	10	2.6	1.8	1.1	.7
13	1.4	1.9	b3.3	2.4	12	13	25	9.5	2.5	2.8	1.0	.7
14	1.6	2.3	b3.2	b2.2	11	19	24	8.9	2.4	7.2	.9	.6
15	1.5	2.4	b3.0	b2.1	10	23	42	8.4	2.4	4.9	1.0	.5
16	1.4	2.0	b2.5	b2.2	9.5	45	76	7.9	2.7	4.1	1.0	.5
17	1.4	2.4	b2.7	2.2	19	32	46	7.4	2.4	5.9	.9	.5
18	1.4	2.0	3.3	2.2	31	28	35	7.0	2.3	4.0	.8	.5
19	1.4	2.9	3.4	2.4	25	26	28	6.5	2.4	3.6	.8	1.1
20	*1.4	2.5	3.1	2.4	23	22	22	6.1	2.5	4.2	.8	1.0
21	1.4	2.3	2.9	2.1	19	20	20	5.7	2.4	5.0	1.2	.7
22	1.3	2.2	2.8	2.0	17	18	18	5.5	2.2	4.4	1.0	.6
23	1.3	2.4	2.8	2.5	14	17	16	5.6	2.1	3.5	.9	.6
24	1.3	2.5	3.0	2.9	13	18	14	5.6	2.4	3.5	.8	1.0
25	1.2	2.7	3.2	2.4	16	16	13	5.1	1.9	3.3	.7	3.0
26	1.2	3.8	3.0	2.3	15	15	12	5.0	1.7	2.7	.7	*11
27	1.2	3.0	2.9	2.3	15	14	11	5.1	1.7	2.4	1.1	5.9
28	1.2	2.7	2.7	2.4	13	13	11	4.8	1.5	2.2	2.0	3.2
29	2.4	b2.2	2.9	3.5	12	14	11	4.4	1.4	1.9	1.4	2.3
30	1.6	b2.1	3.8	6.7	------	12	11	4.6	2.4	1.8	1.0	1.8
31	1.5	------	3.3	5.5	------	11	------	4.8	------	2.0	.9	------
Total	53.2	64.7	104.6	84.1	468.2	540.5	603	283.9	82.7	105.0	35.7	48.4
Mean	1.72	2.16	3.37	2.71	16.1	17.4	20.1	9.16	2.76	3.39	1.15	1.61
Cfsm	0.315	0.396	0.617	0.496	2.95	3.19	3.68	1.68	0.505	0.621	0.211	0.295
In.	0.36	0.44	0.71	0.57	3.19	3.68	4.11	1.93	0.56	0.72	0.24	0.33

Calendar year 1955: Max 62 Min 1.1 Mean 7.90 Cfsm 1.45 In. 19.63
Water year 1955-56: Max 76 Min 0.5 Mean 6.76 Cfsm 1.24 In. 16.84

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 weather records, recorded range in stage, and records for Cane Creek at Fletcher.
b Stage-discharge relation affected by ice.

Swannanoa River at Biltmore, N. C.

Location.--Lat 35°34'06", long 82°32'42", on left bank at Biltmore, Buncombe County, 100 ft downstream from Biltmore Avenue Bridge, 200 ft upstream from Southern Railway bridge, and 1.6 miles upstream from mouth.
Drainage area.--130 sq mi.
Records available.--December 1920 to September 1926, May 1934 to September 1956.
Gage.--Water-stage recorder and concrete control. Datum of gage is 1,976.58 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Dec. 1, 1920, to Sept. 30, 1926, staff gage at site 100 ft upstream at same datum.
Average discharge.--27 years (1921-26, 1934-56), 151 cfs (unadjusted).
Extremes.--Maximum discharge during year, 1,320 cfs Apr. 16 (gage height, 4.56 ft); minimum, 5.2 cfs Sept. 17 (gage height, 1.12 ft); minimum daily, 8.2 cfs Sept. 19, 1920-26, 1934-56: Maximum discharge, 18,400 cfs Aug. 13, 1940 (gage height, 19.00 ft), from rating curve extended above 8,400 cfs on basis of computation of peak flow over dam 3.6 miles above station; minimum, 1.1 cfs Oct. 9, 14, 15, 1941; minimum daily, 1.2 cfs Oct. 14, 1941; minimum gage height, 0.65 ft July 17, 1936.
Maximum stage known, 21.5 ft in July 1916, from floodmarks. Flood of Aug. 16, 1928, reached a stage of 18.74 ft, from floodmarks. Extremely high stages subject to backwater from French Broad River.
Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. No regulation from Lake Craig 3.6 miles above station after 1950 (reservoir silted). City of Asheville diverts its water supply above station from Beetree Reservoir (capacity, 843 cfs-days), North Fork Swannanoa River, and from Burnett Lake on North Fork (see p. 231). Textile mills 2.0 miles above gage divert for industrial use about 5.0 mgd, of which about 3 mgd, equivalent to a mean discharge of 4½ cfs, is discharged into French Broad River. Records of chemical analyses for the water year 1956 are given in WSP 1450.
Revisions (water years).--WSP 803: 1921(M), 1923-26(M). WSP 823: Drainage area.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-29		Oct. 30 to Sept. 30			
1.3	18	1.1	4.0	2.6	348
1.5	45	1.3	20	3.0	515
1.7	82	1.5	47	3.5	755
		1.7	83	4.0	1,010
		1.9	127	4.5	1,280
		2.2	208		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	31	b30	40	41	137	132	152	74	109	28	12
2	45	25	b35	40	66	130	134	147	68	64	*26	13
3	40	*26	42	35	120	132	140	*250	61	50	25	13
4	30	25	52	*35	224	142	*130	281	54	47	27	10
5	26	30	59	32	264	122	118	224	50	72	28	8.8
6	26	32	57	31	499	*116	218	202	47	*116	22	108
7	26	34	52	35	*515	111	234	185	*47	77	20	*92
8	76	31	*47	b30	*299	194	194	166	44	57	16	35
9	70	27	70	b25	*214	202	171	147	44	61	15	28
10	47	49	59	b30	171	176	155	140	49	59	14	19
11	36	62	54	b35	202	163	375	132	107	40	18	17
12	34	42	47	31	194	144	360	127	56	34	20	14
13	a37	41	42	25	166	134	299	118	50	31	15	12
14	a38	40	40	b26	144	163	278	109	42	50	12	11
15	a35	42	36	b28	132	257	372	100	40	86	14	13
16	a30	36	28	b30	118	618	1,140	96	52	86	24	14
17	a28	34	35	b25	180	605	650	89	47	102	17	10
18	a26	34	46	b25	310	429	450	85	36	66	17	8.8
19	a25	44	38	30	306	337	352	85	40	65	18	8.2
20	*a25	49	35	28	299	271	292	83	36	66	18	30
21	a25	40	32	b25	247	234	254	79	40	75	40	13
22	a24	36	28	b27	205	208	227	75	36	79	20	11
23	a24	35	34	34	182	202	205	68	78	168	14	14
24	24	42	38	42	168	188	185	72	52	75	*14	10
25	22	44	38	36	176	179	171	72	35	56	14	56
26	22	56	38	31	218	166	160	70	30	42	14	372
27	23	50	34	31	191	155	150	75	34	35	13	162
28	23	44	31	35	176	144	144	68	32	34	18	79
29	48	b30	30	41	152	160	140	61	46	32	18	59
30	38	b30	34	41	-------	147	152	64	74	26	13	50
31	30	-------	35	41	-------	137	-------	66	-------	26	11	-------
Total	1,039	1,141	1,276	1,000	6,179	6,503	7,982	3,688	1,501	1,986	583	1,302.8
Mean	33.5	38.0	41.2	32.3	213	210	266	119	50.0	64.1	18.8	43.4
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 700 Min 20 Mean 99.3 Cfsm - In. -
Water year 1955-56: Max 1,140 Min 8.2 Mean 93.4 Cfsm - In. -

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, 1 discharge measurement, and records for Cane Creek at Fletcher.
b Stage-discharge relation affected by ice.

French Broad River at Asheville, N. C.

Location.--Lat 35°36'32", long 82°34'41", on right bank at downstream side of Pearson Bridge at Asheville, Buncombe County, 2.3 miles downstream from Southern Railway station, 3.1 miles downstream from Swannanoa River, and at mile 145.8.

Drainage area.--945 sq mi.

Records available.--September 1895 to December 1901 and January 1905 to September 1956 in reports of Geological Survey. September 1895 to December 1901 and March 1903 to December 1923 in North Carolina Department of Conservation and Development Bulletin 34 and Tennessee Division of Geology Bulletin 34. Records prior to January 1909 have been revised in these two bulletins.

Gage.--Water-stage recorder. Datum of gage is 1,950.28 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Sept. 17, 1895, to Dec. 31, 1901, wire-weight gage at present site at different datum. Mar. 19, 1903, to July 15, 1916, and Jan. 1, 1917, to Sept. 30, 1922, staff gage at Smith Bridge 1.5 miles upstream at datum 11.52 ft higher. Oct. 1, 1922, to Aug. 9, 1930, chain gage at present site and datum.

Average discharge.--59 years (1895-1901, 1903-56), 2,072 cfs.

Extremes.--Maximum discharge during year, 10,400 cfs Apr. 16 (gage height, 6.00 ft); minimum, 305 cfs Jan. 9 (gage height, 0.42 ft), result of freezeup.

1895-1901, 1903-56: Maximum discharge, 110,000 cfs July 16, 1916 (gage height, 23.1 ft, present site and datum, from floodmarks), from rating curve extended above 43,000 cfs; minimum, 239 cfs at times in August and September 1925 (gage height, 0.16 ft).

Remarks.--Records excellent except those for periods of ice effect, which are good. Small diversions from tributaries for water supply. Slight diurnal fluctuation and occasional slight regulation at low flow caused by powerplants and small reservoirs above station.

Revisions.--WSP 823: Drainage area. See also Records available.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to July 6				July 7 to Sept. 30			
0.5	365	2.5	2,850	0.5	350	2.0	2,000
.7	530	3.0	3,660	.7	505	2.5	2,750
1.0	825	4.0	5,520	1.0	780	3.0	3,580
1.5	1,410	5.0	7,850	1.5	1,350		
2.0	2,100	6.0	10,400				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	752	575	602	530	640	1,740	1,210	1,660	1,120	981	720	573
2	935	575	630	504	902	1,630	1,190	1,660	1,000	924	680	556
3	902	575	660	513	1,960	1,590	1,220	2,360	935	891	635	505
4	794	566	741	530	2,360	1,600	1,210	3,040	869	836	599	473
5	762	566	814	530	2,760	1,500	1,210	2,320	836	1,100	582	489
6	680	566	847	513	4,130	1,410	1,570	1,980	858	1,270	539	962
7	700	557	772	522	6,180	1,390	2,800	2,040	836	1,730	556	1,090
8	935	575	720	b480	4,290	1,510	2,060	2,380	825	1,410	530	760
9	1,240	593	783	b640	2,490	1,410	1,700	2,040	804	1,130	497	617
10	856	640	783	b650	1,950	1,300	1,550	1,850	847	1,240	481	505
11	730	891	710	b580	2,130	1,250	2,840	1,740	880	934	489	465
12	700	804	611	b530	2,780	1,240	4,540	1,640	847	813	690	473
13	680	670	611	b500	2,160	1,220	3,060	1,530	804	760	539	473
14	680	611	620	b490	1,780	1,460	2,520	1,460	772	835	505	*449
15	670	670	650	b470	1,590	2,000	2,430	1,440	804	934	505	418
16	630	690	620	454	1,480	3,380	9,250	1,340	970	1,230	*608	402
17	584	670	593	b440	1,740	4,360	7,140	*1,250	891	1,070	671	365
18	584	640	593	479	3,470	3,040	4,860	1,190	*720	901	564	350
19	602	670	602	496	3,410	2,440	3,280	1,190	720	868	522	365
20	602	700	*593	602	3,360	2,100	*2,760	1,160	891	1,120	564	402
21	593	620	584	611	*3,410	*1,850	2,480	1,110	935	1,230	644	388
22	584	602	566	522	2,670	1,730	2,250	1,150	970	1,110	590	365
23	566	630	575	496	2,250	1,640	*2,130	1,100	1,090	978	548	365
24	539	660	566	640	2,000	1,550	1,960	1,110	1,160	*868	514	358
25	*530	730	575	710	1,910	1,490	1,850	1,160	1,030	978	489	614
26	539	730	557	650	2,200	1,360	1,750	1,180	970	835	457	*3,440
27	539	720	539	593	2,020	1,330	1,710	1,130	946	750	441	3,330
28	530	640	539	575	2,020	1,310	1,630	1,120	762	700	433	1,600
29	640	620	539	575	2,000	1,410	1,580	1,160	752	635	608	1,100
30	741	*611	557	566	-------	1,500	1,550	1,110	902	599	750	868
31	620	-------	557	593	-------	1,310	-------	1,370	-------	662	680	-------
Total	21,441	19,367	19,709	16,984	72,022	54,050	77,290	47,970	26,746	30,322	17,630	23,120
Mean	692	646	636	548	2,484	1,744	2,576	1,547	892	978	569	771
Cfsm	0.732	0.684	0.673	0.580	2.63	1.85	2.73	1.64	0.944	1.03	0.602	0.816
In.	0.84	0.76	0.78	0.67	2.83	2.13	3.04	1.89	1.05	1.19	0.69	0.91

Calendar year 1955: Max 7,590 Min 530 Mean 1,378 Cfsm 1.46 In. 19.79
Water year 1955-56: Max 9,250 Min 350 Mean 1,166 Cfsm 1.23 In. 16.78

Peak discharge (base, 9,000 cfs).--Apr. 16 (10 a.m.) 10,400 cfs (6.00 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Ivy River near Marshall, N. C.

Location.--Lat 35°46'10", long 82°37'16", on right bank 0.2 mile downstream from highway bridge, 1.9 miles upstream from mouth, and 4.0 miles southeast of Marshall, Madison County.

Drainage area.--158 sq mi.

Records available.--May 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,700.41 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--22 years, 145 cfs.

Extremes.--Maximum discharge during year, 3,370 cfs Apr. 16 (gage height, 8.00 ft); minimum, 13 cfs Jan. 9 (gage height, 1.61 ft), result of freezeup.
1934-56: Maximum discharge, 8,880 cfs Aug. 30, 1940 (gage height, 12.67 ft), from rating curve extended above 5,400 cfs on basis of slope-area determination of peak flow; minimum, 3 cfs Jan. 20, 1940, result of freezeup; minimum gage height, 1.51 ft Aug. 30, Sept. 2, 1953; minimum daily discharge, 8.5 cfs Sept. 2, 18, 1953.

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

Revisions (water years).--WSP 803: 1934(M), 1935.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 6-18, Feb. 21 to Mar. 17, Mar. 20 to Apr. 11)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30					
1.7	19	3.0	216	1.6	12	2.8	160	5.0	990
2.0	47	3.5	345	1.8	25	3.1	220	5.5	1,290
2.3	87	4.0	505	2.0	44	3.5	324	6.0	1,630
2.6	135			2.2	67	4.0	505	6.5	2,090
				2.5	109	4.5	720		

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

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	25	42	b50	130	126	146	111	88	127	36	21
2	34	24	48	b50	158	126	169	122	80	112	33	41
3	29	24	48	48	384	121	173	232	66	61	34	32
4	25	24	62	46	414	144	157	263	60	337	33	48
5	24	24	93	b40	351	123	144	214	56	225	31	26
6	23	24	73	b40	902	116	233	185	52	141	30	65
7	24	28	62	40	584	112	256	168	51	76	27	132
8	109	32	57	b30	305	254	218	153	46	68	24	44
9	58	28	79	b30	214	214	184	132	45	193	*23	31
10	35	32	67	b65	163	175	161	120	87	103	22	26
11	31	62	60	b60	203	155	485	114	53	63	21	24
12	27	42	52	46	198	139	537	104	45	50	23	24
13	26	35	a58	38	161	137	460	98	43	60	22	22
14	28	39	a63	b35	135	163	402	93	45	490	19	21
15	26	51	a67	b60	120	*353	633	*87	40	266	*18	19
16	25	*42	a50	b55	108	1,340	*1,890	81	46	218	17	18
17	25	90	a60	b50	458	835	*836	75	41	205	16	*16
18	26	58	a67	b50	730	529	525	72	38	142	16	30
19	27	79	a80	b45	466	402	376	67	50	123	17	26
20	27	76	*a51	*45	*399	322	*287	65	59	*117	20	30
21	26	55	45	b34	316	271	236	62	*43	103	24	22
22	25	49	40	b32	241	*232	207	59	43	79	27	19
23	25	47	45	44	190	198	185	61	40	67	22	22
24	25	54	42	77	163	201	*166	88	45	67	19	28
25	*24	49	44	63	183	171	151	66	35	62	16	33
26	23	90	44	58	218	159	139	60	30	55	16	399
27	*23	67	42	b50	184	151	128	60	29	48	16	346
28	23	57	38	58	177	140	119	59	28	44	18	155
29	32	45	39	73	144	201	114	65	24	39	25	93
30	33	40	55	174	-----	190	111	59	28	37	21	72
31	26	---	b58	190	-----	165	-----	72	-----	35	20	---
Total	963	1,392	1,731	1,776	8,399	7,965	9,828	3,267	1,436	3,813	706	1,889
Mean	31.1	46.4	55.8	57.3	290	257	328	105	47.9	123	22.8	63.0
Cfsm	0.197	0.294	0.353	0.363	1.84	1.63	2.08	0.665	0.303	0.778	0.144	0.399
In.	0.23	0.33	0.41	0.42	1.98	1.87	2.31	0.77	0.34	0.90	0.17	0.44

Calendar year 1955: Max 1,450 Min 14 Mean 102 Cfsm 0.646 In. 8.82
Water year 1955-56: Max 1,890 Min 16 Mean 118 Cfsm 0.747 In. 10.17

Peak discharge (base, 2,700 cfs).--Apr. 16 (1:30 a.m.) 3,370 cfs (8.00 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 Big Laurel Creek near Stackhouse.
b Stage-discharge relation affected by ice.

French Broad River at Marshall, N. C.

Location.--Lat 35°47'16", long 82°39'47", on right bank 0.4 mile upstream from Hayes Creek, 1.0 mile downstream from Ivy River, 1.5 miles southeast of Marshall, Madison County, and at mile 126.5.

Drainage area.--1,332 sq mi.

Records available.--October 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,646.79 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--14 years, 2,199 cfs.

Extremes.--Maximum discharge during year, 13,800 cfs Apr. 16 (gage height, 6.29 ft); minimum, 203 cfs Jan. 9 (gage height, 0.38 ft), result of freezeup; minimum daily, 367 cfs Sept. 23.

1942-56: Maximum discharge, 29,600 cfs Jan. 7, 1946 (gage height, 9.18 ft); minimum, 193 cfs Sept. 13, 14, 1954 (gage height, 0.36 ft); minimum daily, 292 cfs Sept. 27, 28, 1954.

Floods of July 1916 and Aug. 30, 1940, reached stages of 18½ and 13½ ft, respectively, from high-water marks and flood profiles by Tennessee Valley Authority.

Revisions.--The maximum discharge for the water year 1954 has been revised to 23,200 cfs Jan. 22, 1954 (gage height, 8.48 ft), superseding figure published in WSP 1336.

Remarks.--Records excellent except those for period of ice effect, which are good. Diurnal fluctuation at low flow caused by powerplants above station.

Rating table, water year 1955-56, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 16				Apr. 16 to Sept. 30			
0.7	393	3.0	3,600	0.6	315	3.0	3,540
1.0	635	4.0	6,000	1.0	620	4.0	5,790
1.5	1,190	4.5	7,430	1.5	1,150	5.0	8,750
2.0	1,880			2.0	1,810	6.0	12,400

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	856	675	725	675	900	2,200	1,690	1,940	1,450	1,310	843	656
2	1,070	675	735	655	1,060	2,040	1,720	1,960	1,300	1,110	865	692
3	1,110	665	779	645	2,340	1,970	1,790	2,600	1,200	1,070	770	602
4	955	665	878	655	2,860	2,020	1,700	3,500	1,130	1,410	710	557
5	944	655	1,000	655	3,320	1,940	1,720	2,730	1,020	1,310	701	548
6	834	655	1,010	645	4,780	1,790	1,960	2,330	1,070	1,600	683	1,030
7	834	675	955	655	7,280	1,730	3,380	2,270	1,040	1,920	620	1,530
8	1,110	685	878	608	5,480	2,030	2,840	2,650	1,020	1,780	638	964
9	1,450	695	944	415	3,120	1,920	2,320	2,330	997	1,490	584	750
10	1,140	757	966	b900	2,450	1,780	2,100	2,110	1,080	1,520	557	629
11	889	1,080	889	b800	2,450	1,700	3,420	1,990	1,110	1,160	548	539
12	856	1,020	757	b720	3,210	1,670	6,080	1,900	1,010	1,010	750	539
13	823	867	715	*b680	2,700	*1,650	4,170	1,810	986	1,070	629	522
14	812	768	*746	b640	2,280	1,800	3,400	1,670	964	1,670	593	506
15	812	*779	757	b600	2,060	2,670	3,760	1,680	964	1,410	575	474
16	768	823	768	b580	1,940	5,170	*12,200	1,590	1,110	2,210	*593	443
17	715	878	812	b560	2,600	6,140	*8,650	*1,460	1,140	1,780	710	*436
18	695	779	735	b610	4,620	4,240	*6,180	1,410	920	1,270	656	408
19	735	845	746	665	4,610	3,340	4,140	1,390	865	1,230	566	408
20	725	867	735	*746	*4,060	2,840	*3,400	1,360	*997	*1,390	539	415
21	705	790	725	790	4,240	2,500	2,960	1,310	1,090	1,560	720	422
22	685	725	685	705	3,380	2,310	2,690	1,280	1,090	1,440	656	401
23	695	757	695	665	2,810	2,160	2,520	1,320	1,140	1,150	548	367
24	655	790	705	845	2,500	2,160	*2,350	1,340	1,340	1,140	539	436
25	*599	856	695	933	2,390	1,970	2,210	1,340	1,190	1,170	*514	506
26	635	933	695	889	2,600	1,820	2,110	1,390	1,090	1,110	482	3,800
27	635	900	675	790	2,570	1,780	*2,040	1,280	1,070	931	458	4,120
28	626	812	645	779	2,420	1,720	1,960	1,320	887	854	466	2,170
29	695	715	665	801	2,440	1,880	1,900	1,310	790	780	566	1,430
30	856	735	695	900	-------	2,040	1,810	1,260	1,030	720	760	1,140
31	779	-------	715	944	-------	1,800	-------	1,540	-------	730	854	-------
Total	25,698	23,501	24,125	22,150	89,470	72,780	99,170	55,370	32,090	40,305	19,693	27,440
Mean	829	783	778	715	3,085	2,348	3,306	1,786	1,070	1,300	635	915
Cfsm	0.622	0.588	0.584	0.537	2.32	1.76	2.48	1.34	0.803	0.976	0.477	0.687
In.	0.72	0.86	0.67	0.62	2.50	2.03	2.77	1.55	0.90	1.13	0.55	0.77

Calendar year 1955: Max 8,870 Min 599 Mean 1,648 Cfsm 1.24 In. 16.80
Water year 1955-56: Max 12,200 Min 367 Mean 1,453 Cfsm 1.09 In. 14.87

Peak discharge (base, 10,000 cfs).--Apr. 16 (7:30 a.m.) 13,800 cfs (6.29 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Big Laurel Creek near Stackhouse, N. C.

Location.--Lat 35°55'11", long 82°45'42", on left bank 50 ft west of State Highway 208, 0.3 mile downstream from Big Hurricane Creek, 0.6 mile upstream from Little Hurricane Creek, 2.8 miles north of Stackhouse, Madison County, and 4.2 miles upstream from mouth.

Drainage area.--126 sq mi.

Records available.--May 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,595.68 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--22 years, 177 cfs.

Extremes.--Maximum discharge during year, 4,380 cfs Apr. 16 (gage height, 6.36 ft); minimum, 22 cfs Jan. 14 (gage height, 1.10 ft), result of freezeup; minimum daily, 29 cfs Sept. 17, 22.
1934-56: Maximum discharge, 7,260 cfs Mar. 25, 1935 (gage height, 7.94 ft); minimum, 11 cfs Jan. 6, 1942 (gage height, 0.92 ft), result of freezeup; minimum daily, 19 cfs Sept. 2, 16-18, 1953.

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

Revisions.--WSP 823: Drainage area.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.2	29	3.0	580
1.4	49	3.5	900
1.6	77	4.0	1,310
1.8	113	4.5	1,810
2.0	162	5.0	2,390
2.5	332	5.5	3,060

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	35	b65	b105	285	206	277	193	232	94	61	32
2	48	35	71	b95	315	218	316	236	157	116	57	37
3	40	35	68	94	918	215	384	676	136	92	58	32
4	36	36	94	94	865	281	345	724	a130	70	57	37
5	34	35	129	b85	574	255	288	455	a125	77	54	39
6	34	35	102	b83	640	235	375	375	a120	96	53	117
7	34	41	89	80	774	212	455	398	a115	74	47	152
8	197	47	80	b60	455	292	375	358	a112	74	45	62
9	79	38	115	b55	324	277	304	304	a110	158	41	48
10	54	42	100	b80	245	252	255	266	a220	109	39	41
11	46	64	89	b85	292	228	384	231	a150	74	42	39
12	42	52	b70	77	304	206	547	209	a140	62	49	38
13	40	50	b75	62	262	*212	450	190	a130	64	40	36
14	44	59	*84	b50	221	278	366	173	a140	286	41	34
15	40	*70	91	b70	215	594	562	*165	a130	202	*44	31
16	39	70	b65	b62	212	1,490	2,640	165	a140	243	37	31
17	40	141	b75	b60	674	983	879	146	a125	231	34	*29
18	40	87	b90	b60	1,260	592	*558	136	a115	157	33	45
19	45	107	122	68	795	425	406	129	a170	144	34	36
20	42	102	107	*76	*652	341	328	122	*105	*207	38	34
21	39	82	96	b60	580	308	274	118	82	241	89	31
22	38	71	87	b58	411	292	248	109	79	157	53	29
23	36	70	80	86	308	262	231	122	79	122	41	30
24	35	74	80	118	270	304	206	159	71	115	37	54
25	34	66	86	107	296	308	187	122	68	113	35	56
26	34	100	82	98	349	292	179	113	61	100	34	264
27	*34	79	74	86	312	262	170	113	65	80	31	196
28	34	72	68	98	288	235	196	115	59	79	33	98
29	54	56	66	156	231	416	215	120	53	72	34	71
30	45	b60	111	667	-----	425	196	111	85	66	34	56
31	37	-----	124	520	-----	341	-----	122	-----	61	34	-----
Total	1,465	1,911	2,735	3,555	13,327	11,237	12,596	6,975	3,504	3,836	1,359	1,835
Mean	47.3	63.7	88.2	115	460	362	420	225	117	124	43.8	61.2
Cfsm	0.375	0.506	0.700	0.913	3.65	2.87	3.33	1.79	0.929	0.984	0.348	0.486
In.	0.43	0.56	0.81	1.05	3.93	3.32	3.72	2.06	1.03	1.13	0.40	0.54

Calendar year 1955: Max 1,670 Min 22 Mean 154 Cfsm 1.22 In. 16.61
Water year 1955-56: Max 2,640 Min 29 Mean 176 Cfsm 1.40 In. 18.98

Peak discharge (base, 1,500 cfs).--Feb. 17 (7 p.m.) 1,520 cfs (4.22 ft); Mar. 16 (2:30 p.m.) 1,830 cfs (4.52 ft); Apr. 16 (3:30 a.m.) 4,380 cfs (6.36 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 Ivy River near Marshall.

b Stage-discharge relation affected by ice.

French Broad River near Newport, Tenn.

Location.--Lat 35°58'54", long 83°09'40", on left bank 15 ft downstream from bridge on State Highway 35 at Oldtown, 1 mile northeast of Newport city limits, Cocke County, 3.7 miles upstream from Pigeon River, and at mile 77.5.

Drainage area.--1,858 sq mi.

Records available.--September 1900 to November 1901, November 1902 to December 1905, August to December 1907, and November 1920 to September 1956 in reports of Geological Survey. Records prior to October 1924 (records prior to 1908, revised) in Tennessee Division of Geology Bulletin 34.

Gage.--Water-stage recorder. Datum of gage is 1,011.61 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. September 1900 to November 1901 wire-weight gage at bridge at datum 1.3 ft higher. November 1902 to December 1905 wire-weight gage and August to December 1907 chain gage, at datum approximately 0.9 ft higher. November 1920 to Sept. 13, 1926, chain gage and Sept. 14, 1926, to Mar. 30, 1934, water-stage recorder, at left pier at present datum.

Average discharge.--37 years (1903-5, 1921-56), 2,759 cfs.

Extremes.--Maximum discharge during year, 17,900 cfs Apr. 16 (gage height, 8.25 ft); minimum, 418 cfs Sept. 21 (gage height, 1.08 ft); minimum daily, 479 cfs Sept. 20-22.
1900-1901, 1902-5, 1907, 1920-56: Maximum discharge, 76,300 cfs Aug. 30, 1940 (gage height, 19.25 ft); minimum, 208 cfs Oct. 23, 1952 (gage height, 0.97 ft); minimum daily, 240 cfs Sept. 9, 1925.
Floods of Feb. 28, 1902, and July 17, 1916, reached stages of about 23 ft (discharge, 101,000 cfs) and 22.5 ft (discharge, 97,000 cfs), respectively, present datum, from floodmarks.

Remarks.--Records good. Diurnal fluctuation during low flow caused by powerplants above station.

Revisions (water years).--WSP 783: 1933-34. WSP 823: Drainage area. WSP 893: 1928(M). WSP 1336: 1903(M), 1921-22(M), 1923, 1925(M), 1927(M), 1928, 1932. See also Records available.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.1	430	3.0	3,430
1.3	580	4.0	6,000
1.5	770	6.0	11,300
2.0	1,420	8.0	17,100

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,030	740	781	976	1,890	3,010	2,740	2,490	2,100	1,270	858	904
2	892	670	836	928	1,700	2,810	2,530	2,660	2,180	1,330	964	770
3	1,050	*710	847	869	2,360	2,740	2,940	*3,860	1,790	1,270	964	760
4	1,030	670	916	858	6,260	2,980	*2,760	6,340	1,530	1,160	858	690
5	892	680	1,130	847	5,530	2,960	2,590	5,140	1,360	1,640	825	643
6	*858	690	*1,170	825	5,900	*2,740	2,700	3,960	*1,260	*1,700	*770	*868
7	803	680	1,140	814	*10,600	2,720	4,570	3,800	1,280	1,890	740	2,360
8	1,210	720	1,060	803	8,290	2,810	4,730	3,780	1,210	2,260	690	1,470
9	1,390	700	1,100	643	5,380	3,290	3,600	3,660	1,200	1,930	690	988
10	1,390	740	1,190	556	3,780	2,870	3,080	3,120	1,170	1,880	625	781
11	1,030	869	1,120	589	3,380	2,510	3,410	2,850	1,210	1,580	625	700
12	858	1,050	976	858	4,260	2,340	8,370	2,640	1,190	1,170	652	607
13	836	1,040	847	*858	4,130	2,340	6,910	2,470	1,100	1,060	803	598
14	814	964	847	740	3,260	2,470	5,270	2,280	1,100	2,140	710	580
15	803	869	904	661	2,870	4,100	5,500	2,100	1,060	2,780	740	564
16	770	892	836	792	2,720	*9,090	17,100	2,160	1,100	3,340	643	540
17	760	1,090	760	690	3,780	10,700	*13,600	1,840	1,270	3,360	625	508
18	710	1,060	869	680	9,760	7,360	9,790	1,750	1,170	2,470	760	516
19	710	964	1,000	770	8,390	5,530	6,700	1,660	1,000	1,860	781	516
20	760	1,100	952	847	6,650	4,470	5,270	1,650	1,010	1,950	720	479
21	730	1,010	940	880	6,730	3,860	4,520	1,580	1,160	2,300	952	479
22	720	880	892	880	5,450	3,430	3,980	1,520	1,270	2,060	952	479
23	690	836	847	858	4,280	3,140	3,680	1,530	1,380	1,790	760	516
24	690	892	847	988	3,630	3,080	3,360	1,700	1,420	1,500	661	508
25	652	892	858	1,140	3,380	3,120	3,080	1,600	1,440	1,420	598	572
26	625	1,040	858	1,170	3,760	2,850	2,890	1,530	1,300	1,470	589	2,290
27	625	1,080	825	1,060	3,800	2,700	2,760	1,550	1,230	1,200	556	5,690
28	652	1,000	792	1,010	3,500	2,510	2,660	1,520	1,160	1,090	524	3,680
29	670	858	760	1,240	3,360	3,480	2,660	1,500	952	976	548	2,020
30	740	770	892	2,300	------	3,930	2,530	1,470	916	892	616	1,450
31	825	-- --	1,100	2,870	------	3,380	-------	1,500	-- ----	858	847	-- -
Total	26,215	26,156	28,892	30,000	138,780	115,340	146,280	77,210	38,518	53,596	22,646	33,526
Mean	846	872	932	968	4,786	3,721	4,876	2,491	1,284	1,729	731	1,118
Cfsm	0.455	0.469	0.502	0.521	2.58	2.00	2.62	1.34	0.691	0.931	0.393	0.602
In.	0.52	0.52	0.58	0.60	2.78	2.31	2.93	1.55	0.77	1.07	0.45	0.67

Calendar year 1955: Max 10,700 Min 550 Mean 2,072 Cfsm 1.12 In. 15.13
Water year 1955-56: Max 17,100 Min 479 Mean 2,014 Cfsm 1.08 In. 14.75

Peak discharge (base, 16,000 cfs).--Apr. 16 (8:30 a.m.) 17,900 cfs (8.25 ft).
* Discharge measurement made on this day.

West Fork Pigeon River above Lake Logan, near Hazelwood, N. C.

Location.--Lat 35°23'46", long 82°56'17", on right bank at upstream side of county bridge, 600 ft upstream from Big Creek, 1.1 miles upstream from Lake Logan, and 6.7 miles southeast of Hazelwood, Haywood County.

Drainage area.--27.6 sq mi.

Records available.--February 1954 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,976.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 4,550 cfs Apr. 15 (gage height, 6.62 ft), from rating curve extended above 800 cfs by logarithmic plotting; minimum, 14 cfs Sept. 21-23 (gage height, 0.91 ft).
1954-56: Maximum discharge, that of Apr. 15, 1956; minimum, 9.4 cfs Sept. 29, 30, 1954 (gage height, 1.06 ft).

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

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30			
1.1	12	2.0	217	0.9	13	2.0	244
1.2	21	2.5	424	1.1	29	2.5	435
1.3	34	3.0	690	1.3	53	3.0	690
1.4	51	3.5	1,030	1.6	117		
1.6	97						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	21	31	b35	51	138	84	100	53	96	38	26
2	30	21	42	b30	254	141	87	110	46	97	37	20
3	25	21	51	31	*332	159	82	212	44	89	38	20
4	22	20	224	*b28	275	141	90	157	40	88	36	20
5	21	20	134	b28	191	124	77	114	40	109	37	22
6	25	20	77	b27	551	121	206	114	39	134	*33	39
7	79	28	64	28	242	116	127	181	38	139	30	31
8	257	22	62	b25	175	208	102	*134	*37	114	29	24
9	53	20	64	28	153	127	97	112	48	128	29	20
10	39	36	b50	36	130	116	92	102	41	94	28	19
11	34	36	b48	42	200	113	119	94	44	77	28	*18
12	*30	26	b40	34	133	*105	*121	88	40	67	29	18
13	30	26	b35	29	119	116	150	83	37	70	27	16
14	31	48	*b40	b28	113	291	187	*77	37	79	26	16
15	28	*36	b35	30	108	200	852	72	63	65	34	15
16	28	30	b37	26	102	*392	580	68	39	77	30	15
17	26	41	b45	b26	232	217	287	65	36	95	26	15
18	26	29	57	b25	267	191	234	62	34	60	24	15
19	26	58	44	37	194	168	202	60	51	65	29	15
20	25	36	37	28	314	153	179	58	46	88	26	15
21	25	33	b36	b25	191	141	160	55	76	67	29	*14
22	24	29	b35	b25	162	133	148	*52	89	58	26	14
23	24	72	37	37	141	121	137	50	62	52	24	14
24	24	49	42	34	141	124	125	58	68	50	23	16
25	22	49	41	29	320	108	117	55	132	58	22	94
26	22	59	37	26	191	102	110	50	99	55	21	*251
27	22	37	34	b25	191	97	104	53	67	44	*20	77
28	22	34	33	28	200	94	97	49	50	41	21	41
29	44	b32	39	41	153	144	92	60	60	40	22	31
30	25	b30	42	130	-----	102	88	53	77	39	20	27
31	22		b36	55	-----	92	-----	46	-----	40	20	-----
Total	1,163	1,019	1,629	1,056	5,886	4,595	5,133	2,644	1,631	2,375	862	978
Mean	37.5	34.0	52.5	34.1	203	148	171	85.3	54.4	76.6	27.8	32.6
Cfsm	1.36	1.23	1.90	1.24	7.36	5.36	6.20	3.09	1.97	2.78	1.01	1.18
In.	1.57	1.37	2.20	1.42	7.93	6.19	6.92	3.56	2.20	3.20	1.16	1.32

Calendar year 1955: Max 838 Min 20 Mean 85.8 Cfsm 3.11 In. 42.20
Water year 1955-56: Max 852 Min 14 Mean 79.2 Cfsm 2.87 In. 39.04

Peak discharge (base, 1,500 cfs).--Apr. 15 (7:30 p.m.) 4,550 cfs (6.62 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

West Fork Pigeon River below Lake Logan, near Waynesville, N. C.

Location.--Lat 35°26'38", long 82°54'46", on right bank at downstream side of county bridge at Riverside Church, 2.6 miles downstream from Little East Fork Pigeon River, 3.4 miles downstream from Lake Logan, 3.8 miles upstream from confluence with East Fork Pigeon River, and 5.3 miles southeast of Waynesville, Haywood County.

Drainage area.--55.3 sq mi.

Records available.--March 1954 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,725.08 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 5,180 cfs Apr. 15 (gage height, 7.80 ft), from rating curve extended above 3,300 cfs on basis of logarithmic plotting; minimum, 18 cfs Nov. 16 (gage height, 0.43 ft).
1954-56: Maximum discharge, that of Apr. 15, 1956; minimum, 7.6 cfs Sept. 7, 1954 (gage height, 0.16 ft).

Remarks.--Records excellent. Considerable regulation and diurnal fluctuation at low flow caused by Lake Logan (capacity, 1,050 cfs-days).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30			
0.6	27	2.5	306	0.5	21	2.5	317
.8	41	3.0	455	.7	34	3.0	487
1.0	58	3.5	640	1.0	58	3.5	700
1.5	115	4.0	870	1.5	120	4.0	970
2.0	195	4.5	1,160	2.0	204	4.4	1,230

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	35	45	45	78	232	120	183	100	127	61	36
2	49	36	75	48	310	230	144	190	87	151	56	30
3	43	34	81	46	*455	246	136	317	82	142	57	30
4	38	34	237	43	387	236	152	268	79	136	55	30
5	36	34	183	*41	298	203	134	210	76	158	60	31
6	38	34	106	43	*724	197	308	190	74	188	*51	52
7	60	42	89	45	408	191	214	283	73	216	46	51
8	343	37	83	47	278	311	177	*237	*68	162	44	36
9	81	34	96	67	236	214	168	204	72	197	43	30
10	59	50	71	72	204	197	158	190	76	146	41	29
11	53	65	69	69	302	188	224	178	70	117	41	*28
12	*47	42	65	60	208	175	*216	166	70	106	43	26
13	47	41	60	49	186	*186	268	155	65	106	40	32
14	51	58	*60	47	174	504	326	149	63	133	39	30
15	43	*56	60	45	163	385	1,150	142	97	103	45	28
16	43	52	52	49	154	486	1,200	134	86	105	51	28
17	41	50	54	61	394	412	583	128	68	158	39	26
18	40	43	75	59	412	348	442	120	63	*96	36	28
19	41	70	68	62	213	298	373	117	72	100	42	24
20	40	53	56	55	478	266	329	113	76	124	44	25
21	38	46	54	51	320	241	293	109	87	110	47	26
22	38	44	53	52	270	228	270	103	124	90	41	26
23	37	80	54	45	236	212	250	100	99	82	36	26
24	37	78	59	35	238	210	231	112	93	78	33	28
25	34	66	59	36	455	235	217	107	151	92	32	37
26	34	82	54	34	337	368	206	99	142	75	32	*382
27	34	61	52	33	303	301	195	99	99	69	*34	134
28	35	55	48	33	331	125	186	95	74	65	32	70
29	60	44	54	33	256	120	178	118	88	66	33	51
30	41	43	62	38	------	54	169	105	133	63	31	43
31	35		49	83	------	53	------	90	------	64	30	------
Total	1,694	1,499	2,283	1,526	8,808	7,652	8,997	4,811	2,607	3,625	1,315	1,453
Mean	54.6	50.0	73.6	49.2	304	247	300	155	86.9	117	42.4	48.4
Cfsm	0.987	0.904	1.33	0.890	5.50	4.47	5.42	2.80	1.57	2.12	0.767	0.875
In.	1.14	1.01	1.54	1.03	5.92	5.15	6.05	3.24	1.75	2.44	0.88	0.98

Calendar year 1955: Max 1,090 Min 32 Mean 133 Cfsm 2.41 In. 32.64
Water year 1955-56: Max 1,200 Min 24 Mean 126 Cfsm 2.28 In. 31.13

* Discharge measurement made on this day.

East Fork Pigeon River near Canton, N. C.

Location.--Lat 35°27'42", long 82°52'12", on right bank 800 ft upstream from U. S. Highway 276, 0.4 mile downstream from Dix Creek, 1.7 miles upstream from confluence with West Fork Pigeon River, and 5.2 miles southwest of Canton, Haywood County.

Drainage area.--51.5 sq mi.

Records available.--March 1954 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,674.34 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 3,640 cfs Apr. 15 (gage height, 6.10 ft); minimum, 12 cfs Jan. 9 (gage height, 0.84 ft), result of freezeup.
1954-56: Maximum discharge, that of Apr. 15, 1956; minimum, that of Jan. 9, 1956.

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

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30			
1.0	24	2.5	375	0.9	16	2.5	385
1.2	45	3.0	600	1.1	34	3.0	600
1.5	91	3.5	870	1.3	58	3.5	870
2.0	202			1.5	92	4.0	1,200
				2.0	211		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	35	b30	b30	48	163	107	136	68	81	37	22
2	52	35	41	b30	161	156	105	136	64	84	35	23
3	45	35	45	35	*222	154	101	179	61	58	34	22
4	41	34	72	*33	219	156	105	181	60	52	34	22
5	40	34	84	b29	200	139	95	146	58	88	34	22
6	41	34	57	b27	568	132	179	139	55	87	32	58
7	55	40	52	32	383	124	152	174	*54	85	*29	42
8	193	36	50	b24	239	179	132	148	53	68	27	30
9	68	34	60	b26	194	139	124	*139	52	72	27	25
10	52	44	b40	31	166	130	119	130	55	61	28	22
11	46	53	b37	37	257	128	172	125	54	50	27	22
12	*44	37	b32	33	200	*122	*182	119	49	48	27	*22
13	43	36	b30	31	172	119	219	114	48	45	26	21
14	43	45	*b33	b30	156	211	242	*108	48	52	25	20
15	42	*43	b30	34	143	202	664	104	63	50	27	19
16	41	36	b30	b26	132	393	*1,110	98	52	*48	31	18
17	41	38	b45	b30	239	303	537	92	49	63	26	18
18	38	35	49	b30	264	248	401	88	45	45	27	18
19	38	44	46	38	222	216	321	87	44	46	35	18
20	37	40	42	35	284	192	270	83	46	54	29	18
21	37	35	40	b29	230	175	240	79	45	58	33	*18
22	36	34	b36	b27	200	163	217	*78	53	46	28	18
23	36	38	40	36	180	152	198	74	69	44	25	18
24	37	48	40	45	168	150	184	83	57	42	22	21
25	38	38	41	37	257	136	171	79	53	49	22	43
26	36	44	38	34	219	130	161	74	55	43	22	*254
27	36	38	37	33	200	122	139	76	48	38	*27	116
28	36	36	35	33	208	117	144	71	42	35	26	68
29	50	b30	35	38	175	139	134	69	43	36	23	49
30	40	b28	37	61	-----	119	132	71	54	38	25	42
31	36	-- -	b31	54	--- -	111	.....	64	-- ----	36	23	.
Total	1,474	1,137	1,315	1,048	6,306	5,120	7,057	3,344	1,597	1,706	873	1,129
Mean	47.5	37.9	42.4	33.8	217	165	235	108	53.2	55.0	28.2	37.6
Cfsm	0.922	0.736	0.823	0.656	4.21	3.20	4.56	2.10	1.03	1.07	0.548	0.730
In.	1.06	0.82	0.95	0.76	4.55	3.70	5.10	2.41	1.15	1.23	0.63	0.82

Calendar year 1955: Max 873 Min 28 Mean 112 Cfsm 2.17 In. 29.56
Water year 1955-56: Max 1,110 Min 18 Mean 87.6 Cfsm 1.70 In. 23.18

Peak discharge (base, 1,200 cfs).--Apr. 15 (10:30 p.m.) 3,640 cfs (6.10 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Pigeon River at Canton, N. C.

Location.--Lat 35°31'30", long 82°50'28", on left bank 100 ft upstream from small tributary, 0.5 mile upstream from U. S. Highways 19 and 23 at Canton, Haywood County, and at mile 63.9. Records include flow of small tributary.

Drainage area.--133 sq mi, includes that of small tributary below gage.

Records available.--May 1907 to June 1909 (fragmentary) and December 1928 to September 1956 in reports of Geological Survey. May 1907 to June 1909 (complete) in North Carolina Department of Conservation and Development Bulletin 34 and Tennessee Division of Geology Bulletin 34.

Gage.--Water-stage recorder. Datum of gage is 2,572.22 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to June 1909, staff gage at bridge 0.4 mile downstream at different datum.

Average discharge.--28 years (1907-8, 1929-56), 303 cfs.

Extremes.--Maximum discharge during year, 7,300 cfs Apr. 16 (gage height, 9.10 ft); minimum, 15 cfs Jan. 8 (gage height, 0.04 ft), result of freezeup; minimum daily, 44 cfs Sept. 20.

1907-9, 1928-56: Maximum discharge, 31,600 cfs Aug. 30, 1940 (gage height, 20.75 ft, from floodmark in gage well); minimum, that of Jan. 8, 1956; minimum daily, 27 cfs Sept. 7, 1954.

Remarks.--Records excellent except those for periods of ice effect, which are good. Occasional diurnal fluctuation and considerable regulation at low flow caused by gristmill and Lake Logan on West Fork (capacity, 1,050 cfs-days). City of Canton diverted a total of about 105,000,000 gal just above station for supplementary water supply, equivalent to a mean discharge of 0.4 cfs at station.

Revisions (water years).--WSP 823: Drainage area. WSP 853: 1929-37(M).

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 15

1.5	280	3.0	1,070
1.8	397	3.5	1,420
2.2	580	4.0	1,820
2.5	745		

Note.--Same as following table below 1.5 ft.

Apr. 16 to Sept. 30

0.5	44	1.5	280	4.0	1,760
.6	55	1.8	396	4.5	2,160
.7	69	2.2	570	5.0	2,580
.9	106	2.5	725	6.0	3,550
1.1	154	3.0	1,020		
1.3	212	3.5	1,370		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	74	81	81	*120	423	228	352	181	215	104	61
2	106	74	111	94	408	410	270	360	170	264	96	58
3	94	72	134	88	733	414	266	525	162	215	96	55
4	81	71	246	84	630	431	276	525	154	209	92	55
5	78	71	337	*72	556	364	252	392	149	228	96	54
6	76	71	178	79	1,350	344	497	364	144	304	88	106
7	96	79	149	79	895	336	423	471	142	344	*78	111
8	544	79	136	b60	566	531	340	425	134	235	74	72
9	176	71	170	b70	462	376	317	*376	134	287	72	61
10	120	84	122	b110	389	352	306	348	149	235	71	55
11	*102	132	122	108	568	340	494	333	139	181	71	53
12	96	88	104	98	440	321	532	313	136	162	72	52
13	94	81	*106	81	381	*325	600	302	124	154	69	*52
14	100	96	108	b70	348	749	600	284	124	190	66	53
15	92	115	108	b75	325	721	1,710	270	173	176	68	47
16	92	*100	86	b75	302	997	3,180	259	152	162	90	48
17	88	86	111	b80	662	824	1,250	245	134	246	68	46
18	84	84	122	92	745	663	910	232	120	*159	63	45
19	86	111	139	106	556	570	752	225	*120	152	78	45
20	83	111	102	98	841	508	655	219	139	173	78	44
21	81	88	96	83	600	458	575	212	118	203	86	45
22	79	84	94	81	508	427	530	203	185	149	74	45
23	79	98	98	94	444	397	*489	190	196	136	65	46
24	79	154	102	92	431	393	454	212	159	129	59	54
25	71	106	104	81	735	389	421	212	169	154	55	80
26	72	134	100	66	615	494	400	193	240	129	56	680
27	70	108	94	69	532	467	380	193	168	115	59	298
28	74	98	90	68	585	280	360	184	124	106	68	170
29	108	74	90	72	458	308	344	193	135	108	61	115
30	90	74	106	96	----	203	329	203	189	106	58	96
31	74	-	90	142	----	181	-------	170	- ----	106	56	-
Total	3,309	2,768	3,826	2,644	16,186	13,994	18,142	8,985	4,563	5,732	2,287	2,802
Mean	107	92.3	123	85.3	558	451	605	290	152	185	73.8	93.4
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 2,080 Min 71 Mean 261 Cfsm 1.96 In. 26.61
Water year 1955-56: Max 3,180 Min 44 Mean 233 Cfsm 1.75 In. 23.83

Peak discharge (base, 4,000 cfs).--Apr. 16 (1 a.m.) 7,300 cfs (9.10 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Allen Creek near Hazelwood, N. C.

Location.--Lat 35°25'49", long 83°00'33", on left bank 180 ft downstream from Rocky Branch, 3.0 miles upstream from mouth, and 3.3 miles south of Hazelwood, Haywood County.

Drainage area.--14.4 sq mi.

Records available.--August 1949 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 3,047.83 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--7 years, 32.8 cfs (unadjusted).

Extremes.--Maximum discharge during year, 576 cfs Apr. 15 (gage height, 2.86 ft); minimum, 5.0 cfs Sept. 16, 21, 23 (gage height, 0.88 ft); minimum daily, 5.7 cfs Sept. 21, 22.
1949-56: Maximum discharge, 951 cfs Feb. 21, 1953 (gage height, 3.43 ft); minimum, 1.0 cfs Sept. 9, 1954 (gage height, 0.75 ft); minimum daily, 5.0 cfs Oct. 11-14, 18, 22, 23, 25-27, 1954.
Maximum stage known, 7.0 ft Aug. 30, 1940, from information by local residents.

Remarks.--Records excellent except those for periods of ice effect, which are good. Considerable diurnal fluctuation at low flow caused by intermittent operation of filter plant 0.3 mile upstream since Aug. 29, 1954. Town of Waynesville diverts from Rocky Branch about 3 cfs for water supply at diversion dam 0.4 mile upstream.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30			
0.9	5.4	1.6	89	0.8	3.5	1.6	91
1.0	11	1.8	129	.9	7.0	1.8	131
1.2	29	2.0	179	1.0	13	2.0	180
1.4	55	2.1	210	1.2	32	2.1	210
				1.4	58		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	9.1	b8.5	b12	23	55	41	52	33	36	16	7.9
2	9.7	9.1	b17	b12	69	58	41	56	28	43	16	9.0
3	9.1	9.1	20	12	116	61	39	99	26	37	16	9.5
4	8.5	8.5	66	11	101	57	42	77	25	31	16	9.0
5	7.9	8.5	42	*11	76	52	37	62	24	28	18	9.0
6	7.9	8.5	27	11	142	51	74	57	24	35	13	12
7	17	11	23	11	95	51	54	69	23	37	*12	11
8	73	9.1	22	b9.7	66	92	48	*60	23	37	12	9.0
9	20	9.1	22	b9.1	*58	60	42	53	24	57	11	7.9
10	*15	13	18	b9.1	52	55	41	50	23	40	11	7.4
11	13	12	17	b9.7	61	52	52	47	22	32	13	7.4
12	12	10	b16	9.7	49	49	54	44	23	28	12	7.0
13	13	11	*b15	9.1	44	*51	*63	43	24	28	11	*7.0
14	13	15	b15	b7.9	42	142	68	*41	24	34	10	6.2
15	12	13	16	b8.5	41	97	186	40	24	28	11	6.5
16	11	*12	b13	9.1	39	161	209	38	24	35	10	6.5
17	11	17	b13	9.1	84	112	123	37	26	*36	9.5	6.2
18	11	12	22	9.1	91	97	100	36	26	26	9.0	6.5
19	10	20	17	17	78	85	88	34	30	25	9.5	6.2
20	10	15	16	11	108	76	79	33	*27	25	9.5	6.5
21	9.7	13	15	9.7	80	69	72	32	26	24	12	5.7
22	9.7	13	15	9.1	66	63	68	31	30	22	10	5.7
23	9.1	23	15	15	60	58	63	31	27	21	9.0	6.2
24	9.1	18	17	13	61	58	60	33	24	22	8.4	7.4
25	9.1	18	17	12	113	52	57	31	26	25	9.0	32
26	8.5	20	16	11	80	51	54	30	28	22	9.5	*84
27	8.5	17	15	11	76	48	52	30	25	20	9.0	38
28	8.5	15	15	12	71	45	50	29	20	19	9.5	21
29	15	b12	17	16	60	57	49	42	34	19	9.0	16
30	9.7	b8.5	19	44	----	48	47	29	31	18	9.0	14
31	9.1	- -	15	23	------	42	- ------	26	-- ----	17	7.9	-- - -
Total	405.1	389.5	601.5	383.9	2,102	2,105	2,053	1,372	774	907	347.8	387.7
Mean	13.1	13.0	19.4	12.4	72.5	67.9	68.4	44.3	25.8	29.3	11.2	12.9
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 254 Min 6.8 Mean 30.7 Cfsm - In. -
Water year 1955-56: Max 209 Min 5.7 Mean 32.3 Cfsm - In. -

Peak discharge (base, 400 cfs).--Apr. 15 (9:30 p.m.) 576 cfs (2.86 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Jonathan Creek near Cove Creek, N. C.

Location.--Lat 35°37'22", long 83°00'26", on left bank 1,500 ft downstream from ford, 0.7 mile upstream from mouth, and 2 miles downstream from Cove Creek and village of Cove Creek, Haywood County.

Drainage area.--65.3 sq mi.

Records available.--May 1930 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,383.89 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--26 years, 123 cfs.

Extremes.--Maximum discharge during year, 1,930 cfs Apr. 15 (gage height, 5.73 ft); minimum, 29 cfs Sept. 16, 17; minimum gage height, 0.82 ft Jan. 8, result of freezeup.
1930-56: Maximum discharge, 3,200 cfs Aug. 30, 1940 (gage height, 7.51 ft); minimum, 18 cfs Jan. 2, 1940 (gage height, 0.54 ft), result of freezeup; minimum daily, 23 cfs Sept. 17, 18, 23, 1953.

Remarks.--Records excellent except those for periods of ice effect, which are good. Slight diurnal fluctuation at low flow caused by small gristmill above station.

Revisions.--WSP 823: Drainage area.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	31	2.5	305
.9	37	3.0	452
1.1	51	3.5	640
1.4	83	4.0	880
1.7	125	4.5	1,160
2.0	182		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	34	b48	b40	*87	178	150	167	139	86	54	37
2	42	34	59	b43	188	187	155	182	104	90	55	50
3	37	34	63	45	316	204	146	335	95	88	60	40
4	35	34	139	44	314	198	159	262	91	83	53	64
5	34	34	*122	43	266	174	139	210	88	87	64	43
6	34	33	86	*43	464	167	241	196	84	163	53	83
7	38	*40	72	43	349	161	194	*194	82	119	47	66
8	218	36	66	b38	242	196	167	178	79	99	*45	48
9	58	35	71	b38	200	153	146	163	82	120	44	43
10	*46	40	59	b37	165	146	150	157	88	95	43	39
11	41	44	b55	b45	189	142	239	148	78	78	45	38
12	38	38	b52	42	153	137	210	142	77	72	47	36
13	36	38	b50	40	139	142	200	137	75	86	43	35
14	40	51	b48	b40	130	364	189	130	72	152	41	33
15	37	48	50	b40	130	320	645	127	78	127	40	32
16	37	46	b45	b36	122	497	*932	122	76	104	40	31
17	36	71	b55	b38	214	366	491	118	71	*135	38	*31
18	36	46	61	b39	362	313	378	114	76	91	37	34
19	38	82	56	68	264	272	321	112	*98	92	59	32
20	36	56	50	51	338	239	282	109	88	81	47	32
21	35	48	48	44	262	*219	256	106	83	76	66	*32
22	35	45	47	43	224	200	234	103	101	68	45	32
23	35	81	48	56	196	187	217	100	164	68	40	32
24	34	70	50	66	196	189	203	109	104	71	38	62
25	33	59	50	55	349	167	191	104	112	81	37	103
26	33	70	48	50	276	161	180	100	102	76	36	343
27	34	55	46	48	246	153	172	97	84	76	36	125
28	33	50	45	50	229	146	163	122	72	60	50	86
29	51	b45	47	64	194	254	159	110	75	56	48	68
30	38	b44	51	152	-----	180	157	102	128	58	43	57
31	35	--	b45	102	-----	161	-----	92	---	56	40	-
Total	1,368	1,441	1,832	1,583	6,804	6,573	7,466	4,448	2,746	2,794	1,434	1,787
Mean	44.1	48.0	59.1	51.1	235	212	249	143	91.5	90.1	46.3	59.6
Cfsm	0.675	0.735	0.905	0.783	3.60	3.25	3.81	2.19	1.40	1.38	0.709	0.913
In.	0.78	0.82	1.04	0.90	3.88	3.74	4.25	2.53	1.56	1.59	0.82	1.02

Calendar year 1955: Max 978 Min 28 Mean 108 Cfsm 1.65 In. 22.47
Water year 1955-56: Max 932 Min 31 Mean 110 Cfsm 1.68 In. 22.93

Peak discharge (base, 1,100 cfs).--Apr. 15 (11 p.m.) 1,930 cfs (5.73 ft); June 30 (2 p.m.) 1,480 cfs (5.04 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Pigeon River near Hepco, N. C.

Location.--Lat 35°38'07", long 82°59'22", on left bank 0.8 mile downstream from Jonathan Creek, 2.4 miles upstream from Fines Creek and from Hepco, Haywood County, and at mile 45.0.

Drainage area.--350 sq mi.

Records available.--July 1927 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,335.95 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--29 years, 642 cfs.

Extremes.--Maximum discharge during year, 12,200 cfs Apr. 16 (gage height, 9.62 ft); minimum, 121 cfs Sept. 21 (gage height, 0.96 ft).

1927-56: Maximum discharge, 32,700 cfs Aug. 30, 1940 (gage height, 15.82 ft, from floodmark in gage house), from rating curve extended above 12,000 cfs on basis of slope-area determinations at gage heights 14.94 and 15.82 ft; minimum, 81 cfs Sept. 30, 1941; minimum gage height, 0.81 ft Sept. 8, 1954.

Maximum stage known, about 18 ft June 1876 and February 1902, from flood profiles by Tennessee Valley Authority.

Remarks.--Records excellent except those for periods of no gage-height record, which are good. Considerable regulation by Lake Junaluska on Richland Creek and Lake Logan on West Fork Pigeon River for periods of low flow (combined capacity of reservoirs, about 2,200 cfs-days). Records of chemical analyses for the water year 1956 are given in WSP 1450.

Revisions (water years).--WSP 823: Drainage area. WSP 893: 1928-31, 1932(M), 1933-36, 1937-39(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.9	110	3.0	1,020
1.0	128	4.0	1,890
1.4	230	5.0	3,000
1.8	370	6.0	4,440
2.0	455	7.2	6,570
2.5	715		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	240	154	181	186	*335	848	555	710	460	428	a260	151
2	230	154	240	200	619	848	632	800	419	475	a250	225
3	192	154	290	197	1,540	854	632	1,310	382	446	a240	166
4	168	151	434	192	1,410	926	649	1,170	360	424	a230	209
5	163	151	*686	181	1,360	776	605	896	352	410	a230	168
6	166	151	394	*184	2,150	737	968	818	342	790	a240	283
7	173	173	328	184	2,010	720	945	*902	335	698	a200	335
8	917	*178	304	168	1,170	999	742	902	324	480	*189	215
9	394	161	342	143	932	806	688	770	363	515	181	181
10	251	181	290	203	782	732	660	720	382	495	178	161
11	*209	254	265	218	944	704	1,190	682	342	382	184	154
12	189	197	237	212	836	671	1,100	649	321	346	206	149
13	184	178	230	192	715	668	1,090	616	307	346	184	145
14	192	203	221	161	649	1,510	1,090	595	310	549	171	141
15	184	254	234	176	622	1,680	2,300	565	346	520	168	136
16	178	215	200	195	585	2,380	*6,460	545	352	455	184	132
17	173	251	192	173	1,150	1,960	2,530	520	321	*575	173	*130
18	171	209	254	195	1,860	1,490	1,920	500	*328	406	161	132
19	176	279	276	265	1,250	1,260	1,540	480	352	390	236	128
20	171	276	227	254	1,670	1,090	1,320	470	378	374	209	126
21	166	209	215	203	1,290	*971	1,150	455	328	398	248	123
22	163	192	206	189	1,060	896	1,060	442	386	335	203	17.
23	163	244	209	230	914	836	978	424	551	318	171	123
24	163	332	215	314	884	824	902	450	406	321	159	190
25	145	254	224	251	1,370	776	848	465	387	349	151	322
26	149	296	218	215	1,460	842	806	428	475	335	149	1,800
27	151	251	206	206	1,100	878	764	424	370	328	154	754
28	149	224	197	203	1,130	654	726	432	304	a310	223	465
29	200	195	197	230	920	872	698	442	282	a290	209	332
30	203	171	227	398	------	671	676	465	450	a290	192	a280
31	163	--	218	390	------	555	------	394	--- -- -	a280	176	- -
Total	6,536	6,292	8,157	6,708	32,717	30,432	36,224	19,441	11,015	13,058	6,109	7,980
Mean	211	210	263	216	1,128	982	1,207	627	367	421	197	266
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 3,310 Min 143 Mean 521 Cfsm 1.49 In. 20.19
Water year 1955-56: Max 6,460 Min 123 Mean 505 Cfsm 1.44 In. 19.62

Peak discharge (base, 6,000 cfs).--Apr. 16 (4 a.m.) 12,200 cfs (9.62 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for stations at Canton and Jonathan Creek near Cove Creek.

Pigeon River at Newport, Tenn.

Location.--Lat 35°57'36", long 83°10'26", on left bank 100 ft upstream from bridge on U. S. Highway 70 at Newport, Cocke County, 0.6 mile downstream from Morell Branch, and at mile 6.8

Drainage area.--666 sq mi.

Records available.--January 1903 to December 1905, December 1906 to December 1909, November 1918 to September 1929, May 1945 to July 1946, and August 1948 to September 1956 in reports of Geological Survey. Published as "near Newport" 1945-46. September 1900 to October 1901, December 1902 to December 1905, and December 1906 to September 1924 (prior to October 1910 and October 1920 to September 1921, revised), in Tennessee Division of Geology Bulletin 34.

Gage.--Water-stage recorder. Datum of gage is 1,040.76 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to September 1929, staff or chain gage at same site and datum. May 1945 to July 1946, water-stage recorder at site 4.8 miles downstream at datum 37.85 ft lower.

Average discharge.--29 years (1903-5, 1908-12, 1914-29, 1948-56), 1,189 cfs.

Extremes.--Maximum discharge during year, 20,100 cfs Apr. 16 (gage height, 10.70 ft); minimum, 70 cfs Aug. 19 (gage height, -0.07 ft); minimum daily, 94 cfs Aug. 12.
1900-1901, 1902-5, 1906-29, 1945-46, 1948-56: Maximum discharge, 34,900 cfs Apr. 2, 1920 (gage height, 17.0 ft); minimum, 38 cfs Oct. 5, 1952, Sept. 13, 1954; minimum daily, 48 cfs Sept. 21, 28, 1953; minimum gage height, -0.32 ft Sept. 13, 1954.
Flood of Feb. 28, 1902, reached a stage of 21.4 ft. Flood of Aug. 30, 1940, reached a stage of 17.3 ft (discharge, 36,000 cfs), determined by Tennessee Valley Authority.

Remarks.--Records good. Considerable regulation by Lakes Junaluska, Logan, and Walters for periods of low flow (combined usable capacity of reservoirs, about 12,500 cfs-days).

Revisions (water years).--WSP 1143: Drainage area; average discharge. WSP 1336: 1903, 1917(M), 1919-20(M), 1921, 1924(M), 1927-29(M). See also Records available.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0	82	2.0	1,330
.2	125	3.0	2,580
.4	180	4.0	4,130
.7	304	6.0	7,900
1.0	480	8.0	12,700
1.5	860		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	536	304	484	410	1,270	2,090	814	1,440	1,080	574	589	344
2	228	271	523	352	1,470	2,100	1,170	1,440	1,390	803	530	362
3	260	*280	436	492	3,530	1,580	1,750	*1,960	890	668	493	228
4	384	280	340	564	3,100	1,520	*1,510	2,930	882	470	326	356
5	406	228	682	560	2,070	1,950	1,410	2,280	872	640	200	342
6	*418	181	*870	556	2,890	1,750	1,900	1,340	*794	*939	*352	*677
7	460	186	856	400	*3,910	1,690	2,110	1,640	662	1,450	438	1,630
8	902	409	814	332	3,240	1,920	1,530	1,740	612	666	386	517
9	830	446	901	401	2,940	1,790	1,630	1,620	480	918	264	250
10	480	480	722	600	2,760	1,250	1,490	1,590	389	851	255	402
11	533	416	519	522	2,760	946	2,090	1,520	579	722	215	322
12	480	310	682	500	1,660	1,240	3,180	1,080	636	733	94	319
13	519	192	792	*499	1,940	1,620	2,400	692	632	752	202	303
14	461	370	800	402	2,010	2,080	1,830	991	658	1,810	292	312
15	332	508	810	294	1,810	2,950	2,880	1,180	607	1,460	283	256
16	206	466	777	314	1,440	*4,130	12,300	939	476	1,400	279	298
17	288	631	682	478	2,070	3,840	*5,900	810	386	2,810	286	170
18	440	538	513	409	4,450	3,220	4,030	681	514	2,000	228	302
19	469	446	797	430	3,330	2,920	3,250	538	618	1,220	673	278
20	458	334	729	451	3,260	2,760	2,880	446	706	1,340	390	280
21	422	483	686	386	3,160	2,650	2,580	487	658	809	782	280
22	305	570	638	306	2,820	2,610	2,080	640	644	560	640	224
23	186	602	525	328	2,650	2,470	2,360	617	728	970	354	109
24	252	586	376	523	2,220	1,950	2,080	651	604	1,020	372	492
25	436	661	264	550	1,800	1,090	1,900	567	620	1,060	360	812
26	390	679	222	566	1,690	1,320	1,800	429	746	900	164	1,720
27	305	472	273	525	2,140	1,740	1,780	412	709	891	205	1,790
28	281	646	454	490	2,210	1,680	1,220	526	526	654	338	1,000
29	296	790	527	472	2,150	2,080	1,020	566	463	424	514	679
30	190	756	677	1,330	-------	2,100	1,190	775	422	634	347	466
31	174	-------	588	1,560	-------	1,580	-------	812	-------	696	466	-------
Total	12,327	13,521	18,961	16,002	72,750	64,616	73,864	33,339	20,013	30,844	11,523	15,520
Mean	398	451	612	516	2,509	2,084	2,462	1,075	667	995	372	517
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 5,030 Min 57 Mean 981 Cfsm 1.47 In. 20.00
Water year 1955-56: Max 12,300 Min 94 Mean 1,047 Cfsm 1.57 In. 21.40

Peak discharge (base, 7,500 cfs).--Apr. 16 (10:30 a.m.) 20,100 cfs (10.70 ft).
* Discharge measurement made on this day.

North Toe River at Altapass, N. C.

Location.--Lat 35°53'59", long 82°01'50", on left bank 0.1 mile upstream from Rose Creek, 1.0 mile northwest of Altapass, Mitchell County, and at mile 36.0.

Drainage area.--104 sq mi.

Records available.--May 1934 to September 1956. Prior to October 1938, published as "above Spruce Pine" (flow of Rose Creek included).

Gage.--Water-stage recorder. Datum of gage is 2,542.91 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 1, 1938, at site 1.2 miles downstream at datum 13.90 ft lower.

Average discharge.--22 years, 197 cfs.

Extremes.--Maximum discharge during year, 2,610 cfs Apr. 16 (gage height, 7.36 ft); minimum, 26 cfs Sept. 16 (gage height, 1.11 ft); minimum daily, 28 cfs Sept. 16.
1934-56: Maximum discharge, 22,200 cfs Aug. 13, 1940 (gage height, 19.5 ft, from floodmark in gage well), from rating curve extended above 5,000 cfs on basis of slope-area determination of peak flow; minimum, 23 cfs Sept. 9, 1954 (gage height, 0.99 ft); minimum daily, that of Sept. 16, 1956.
Maximum stage known, about 24 ft in July 1916.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Slight diurnal fluctuation at low flow caused by gristmills and primary mineral processing mills.

Revisions.--WSP 973: Drainage area.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 8)

Oct. 1 to Mar. 16				Mar. 17 to Sept. 30			
1.3	52	2.5	380	1.1	25	3.0	544
1.5	90	3.0	560	1.3	50	4.0	940
1.7	135	3.5	760	1.6	106	5.0	1,380
2.0	215	4.1	1,000	2.0	204	6.0	1,870
				2.5	365		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97	70	b85	b95	130	207	176	248	125	101	58	40
2	86	68	b85	b95	168	212	234	242	127	98	73	50
3	80	66	b95	b90	398	212	413	348	112	84	57	49
4	74	66	b115	90	376	294	258	328	110	109	57	44
5	70	63	133	74	303	218	221	245	106	108	53	43
6	68	63	*103	84	610	201	360	252	104	112	50	73
7	80	72	94	b80	574	195	386	351	102	96	44	159
8	217	78	92	b70	359	274	284	*233	98	82	43	65
9	117	68	103	b70	280	207	*248	*218	96	108	42	46
10	86	82	99	b80	233	190	*233	201	104	125	40	43
11	78	121	b95	b70	303	179	376	190	*98	*78	39	40
12	72	103	b95	b65	261	*174	414	179	90	65	37	39
13	74	88	b110	b60	*215	190	393	168	84	71	37	36
14	76	99	b105	b55	193	242	331	*166	80	175	36	34
15	70	*126	b95	b60	182	378	415	163	78	112	36	32
16	68	97	b90	*b65	174	970	1,730	171	82	143	37	28
17	70	128	b90	b60	437	732	884	150	80	125	36	30
18	*70	103	b100	b60	717	540	672	143	82	98	35	34
19	74	119	b105	b65	516	457	552	136	78	92	36	*35
20	72	128	b95	b70	499	372	471	129	88	88	37	50
21	68	105	b90	b65	373	328	410	129	84	104	*55	40
22	66	99	b90	b70	310	304	376	125	76	80	60	35
23	65	97	b85	b75	264	274	345	132	71	75	44	39
24	66	97	b90	b90	248	304	314	153	64	78	39	57
25	65	92	b95	b80	296	271	287	127	64	75	35	94
26	65	133	97	b75	328	252	271	123	58	75	34	361
27	65	105	86	b70	255	242	258	123	58	64	34	696
28	65	97	80	b75	284	227	245	123	57	60	37	221
29	130	b95	82	b95	230	242	236	123	53	52	40	123
30	92	b90	94	b180	------	213	236	119	55	53	43	96
31	74	--	99	197	------	190	------	116	--	57	40	--
Total	2,520	2,816	2,972	2,530	9,516	9,291	12,029	5,654	2,564	2,841	1,344	2,732
Mean	81.3	93.9	95.9	81.6	328	300	401	182	85.5	91.6	43.4	91.1
Cfsm	0.782	0.903	0.922	0.785	3.15	2.88	3.86	1.75	0.822	0.881	0.417	0.876
In.	0.90	1.01	1.06	0.90	3.40	3.32	4.30	2.02	0.92	1.02	0.48	0.98

Calendar year 1955: Max 3,360 Min 60 Mean 187 Cfsm 1.80 In. 24.44
Water year 1955-56: Max 1,730 Min 28 Mean 155 Cfsm 1.49 In. 20.31

Peak discharge (base, 1,500 cfs).--Apr. 16 (5 a.m.) 2,610 cfs (7.36 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Cane River near Sioux, N. C.

Location.--Lat 36°00'52", long 82°19'40", on right bank on State Highway 26, 1.3 miles upstream from confluence with North Toe River, 1.5 miles east of Sioux, Yancey County, and at mile 1.3.

Drainage area.--157 sq mi.

Records available.--May 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,045.24 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--22 years, 238 cfs.

Extremes.--Maximum discharge during year, 5,200 cfs Apr. 16 (gage height, 8.80 ft); minimum, 30 cfs Jan. 15 (gage height, 1.70 ft), result of freezeup; minimum daily, 43 cfs Aug. 28.

1934-56: Maximum discharge, 31,800 cfs Aug. 13, 1940 (gage height, 17.8 ft); from rating curve extended above 8,000 cfs on basis of slope-area determination at gage height of 15.65 ft; minimum, 18 cfs Jan. 6, 1940 (gage height, 1.14 ft), result of freezeup; minimum daily, 27 cfs Sept. 14, 1953.

Remarks.--Records excellent except those for periods of ice effect, which are good. Considerable diurnal fluctuation and slight regulation at low flow caused by small mills and Burnsville powerplant.

Revisions (water years).--WSP 893: 1934(M). WSP 1143: 1940(M).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	39	3.5	495
2.0	63	4.0	725
2.2	95	5.0	1,320
2.5	158	6.0	2,080
3.0	310	7.0	3,020

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	54	b100	b105	187	282	265	236	198	131	85	50
2	81	54	110	b100	239	289	331	249	168	114	90	116
3	90	55	124	93	630	296	387	390	146	95	88	62
4	69	54	146	90	660	359	331	415	135	110	83	62
5	62	53	204	85	540	306	292	334	127	125	78	56
6	56	50	161	85	1,010	278	387	317	120	166	75	89
7	56	58	*140	83	880	258	467	331	116	122	68	207
8	231	63	127	74	511	421	366	328	110	118	64	92
9	142	56	146	b75	398	362	324	*282	108	179	60	66
10	88	59	131	b85	324	310	*292	258	106	144	58	58
11	74	97	118	b80	401	289	432	239	108	104	56	56
12	66	86	b115	b75	408	268	507	224	*97	*88	59	56
13	63	72	b115	b70	328	*278	495	212	93	90	56	55
14	64	78	b130	b65	*278	345	463	204	95	620	56	53
15	62	112	b115	b70	255	560	859	198	112	359	51	51
16	66	*93	b105	b60	239	1,300	3,000	192	103	366	49	51
17	63	183	b115	*b70	606	958	1,090	176	99	310	48	51
18	60	124	127	b70	970	695	750	166	95	212	48	59
19	*63	142	124	81	665	576	584	156	119	181	50	54
20	60	158	104	86	635	483	491	151	153	176	53	*54
21	58	120	95	74	531	423	423	146	112	171	66	51
22	55	104	b95	b77	423	390	384	142	104	140	*63	53
23	55	99	90	b85	356	356	356	149	103	124	56	53
24	54	114	92	114	345	376	320	184	88	140	40	60
25	53	104	99	97	394	342	292	146	83	133	48	75
26	51	176	99	88	536	320	275	137	76	112	47	638
27	51	135	92	81	398	310	258	137	75	99	44	874
28	51	114	85	85	376	300	245	140	72	92	43	394
29	74	b103	86	103	314	356	233	149	69	88	53	233
30	72	b100	110	304	-----	324	230	142	98	83	53	174
31	56		b105	310	------	289	-----	146	-----	81	54	-----
Total	2,252	2,870	3,605	3,040	13,837	12,699	15,129	6,676	3,288	5,073	1,852	4,003
Mean	72.6	95.7	116	98.1	477	410	504	215	110	164	59.7	133
Cfsm	0.462	0.610	0.739	0.625	3.04	2.61	3.21	1.37	0.701	1.04	0.380	0.847
In.	0.53	0.68	0.85	0.72	3.28	3.01	3.58	1.58	0.78	1.20	0.44	0.95

Calendar year 1955: Max 1,460 Min 39 Mean 191 Cfsm 1.22 In. 16.50
Water year 1955-56: Max 3,000 Min 43 Mean 203 Cfsm 1.29 In. 17.60

Peak discharge (base, 2,600 cfs).--Apr. 16 (5 a.m.) 5,200 cfs (8.80 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

North Indian Creek near Unicoi, Tenn.

Location.--Lat 36°10'35", long 82°17'36", on right bank 100 ft upstream from unnamed tributary, 900 ft upstream from Rocky Branch, and 3.4 miles southeast of Unicoi, Unicoi County.

Drainage area.--15.9 sq mi.

Records available.--May 1944 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,209.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--12 years, 20.8 cfs.

Extremes.--Maximum discharge during year, 343 cfs Apr. 15 (gage height, 3.48 ft); minimum, 3.3 cfs Oct. 5; minimum gage height, 0.99 ft Sept. 17.
1944-56: Maximum discharge, 486 cfs July 22, 1954 (gage height, 4.08 ft), from rating curve extended above 280 cfs; minimum, 1.9 cfs Nov. 29, 1953; minimum gage height, 0.79 ft Sept. 28-28, 1944.

Remarks.--Records good. Some diversion from Davis Spring 1 mile upstream for part of water supply of Johnson City.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 15				Mar. 16 to Sept. 30			
1.0	2.5	1.4	14	1.0	3.5	1.7	36
1.1	3.8	1.6	26	1.1	6.0	2.0	67
1.2	6.2	2.0	67	1.2	9.2	2.5	143
1.3	9.8	2.6	161	1.3	13	2.8	199
				1.5	23		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	*3.7	4.8	8.7	29	25	24	*20	38	11	8.2	6.6
2	3.5	3.7	6.6	9.1	44	26	41	30	26	8.6	7.9	10
3	*3.5	3.7	6.6	*9.1	109	30	*45	57	22	7.9	*7.6	5.5
4	3.4	3.7	14	9.1	96	34	38	51	*19	7.9	7.3	*5.0
5	3.4	3.7	*12	8.4	68	*31	32	40	17	7.6	7.0	5.5
6	3.4	3.7	9.1	7.6	*79	28	50	33	16	10	6.6	24
7	3.9	4.8	8.0	7.6	65	25	49	33	14	8.6	6.3	15
8	21	4.5	7.3	5.7	46	33	41	28	14	7.9	6.0	7.9
9	5.0	4.0	9.8	4.5	36	26	35	26	13	*11	5.8	6.6
10	3.8	5.6	7.6	5.2	28	25	31	24	12	9.2	5.5	6.0
11	3.5	6.2	6.6	5.5	43	24	49	23	11	7.3	5.5	5.5
12	3.4	5.7	5.0	5.2	37	24	59	21	11	6.6	5.2	5.0
13	3.5	5.2	5.0	5.5	32	32	55	20	10	10	5.0	4.5
14	3.7	7.5	5.5	5.2	28	41	49	20	10	27	5.2	4.2
15	3.5	7.6	5.7	5.2	26	62	92	21	10	12	5.0	4.2
16	3.5	8.9	4.5	5.5	24	109	196	26	10	77	4.8	4.2
17	3.5	15	5.0	5.2	120	86	98	19	10	36	4.5	4.3
18	4.0	8.4	8.4	5.2	156	65	67	18	10	22	4.5	5.7
19	4.8	14	9.8	8.4	96	49	50	17	12	19	4.8	4.5
20	4.0	12	7.6	8.0	84	40	41	16	10	36	5.0	4.2
21	3.7	9.1	7.3	6.2	65	35	35	15	9.2	31	11	4.2
22	3.5	8.0	6.9	5.7	51	31	31	15	8.9	22	6.3	4.0
23	3.5	7.6	6.9	7.3	39	29	30	16	8.6	17	5.5	4.6
24	3.7	6.9	8.4	8.0	36	37	27	17	8.2	16	4.8	6.3
25	3.7	7.6	8.7	7.3	42	32	25	14	7.6	18	4.8	6.0
26	3.7	9.8	7.6	6.6	40	32	23	14	7.3	14	4.5	36
27	3.7	7.6	7.3	6.4	35	30	22	14	7.6	12	4.2	47
28	3.7	6.9	6.6	8.0	33	28	21	18	7.0	10	4.5	19
29	6.5	4.8	6.6	24	27	31	20	17	6.6	10	4.5	13
30	4.3	5.0	15	68	-------	28	20	14	10	9.2	4.5	10
31	3.8	-------	10	44	-------	26	-------	20	-------	8.6	4.5	-------
Total	136.6	204.9	240.2	325.4	1,614	1,154	1,396	717	376.0	510.4	176.8	288.5
Mean	4.41	6.83	7.75	10.5	55.7	37.2	46.5	23.1	12.5	16.5	5.70	9.62
Cfsm	0.277	0.430	0.487	0.660	3.50	2.34	2.92	1.45	0.786	1.04	0.358	0.605
In.	0.32	0.48	0.56	0.76	3.78	2.70	3.27	1.68	0.88	1.19	0.41	0.67

Calendar year 1955: Max 209 Min 2.9 Mean 18.6 Cfsm 1.17 In. 15.91
Water year 1955-56: Max 196 Min 3.4 Mean 19.5 Cfsm 1.23 In. 16.70

Peak discharge (base, 220 cfs).--Feb. 17 (2 p.m.) 261 cfs (3.11 ft); Apr. 15 (12 p.m.) 343 cfs (3.48 ft); July 16 (6 a.m.) 305 cfs (3.31 ft).
* Discharge measurement made on this day.

Nolichucky River at Embreeville, Tenn.

Location.--Lat 36°10'35", long 82°27'27", on left bank 2,000 ft upstream from bridge on State Highway 81 at Embreeville, Washington County, 3 miles northwest of Erwin, 5.2 miles downstream from North Indian Creek, and at mile 89.0.

Drainage area.--805 sq mi.

Records available.--September 1900 to May 1901 (published as "near Chucky Valley"), July 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,519.30 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. September 1900 to May 1901, chain gage at site 3 miles downstream at different datum. July 1920 to October 1931 chain gage at bridge 2,000 ft downstream at datum 6.33 ft lower.

Average discharge.--37 years (1919-56), 1,292 cfs.

Extremes.--Maximum discharge during year, 21,200 cfs Apr. 16 (gage height, 7.73 ft); minimum, 189 cfs Jan. 10 (gage height, 0.77 ft).
1900-1901, 1919-56: Maximum discharge, 82,500 cfs Aug. 13, 1940 (gage height, 18.57 ft), from rating curve extended above 48,000 cfs on basis of slope-area determination of peak flow; minimum, 85 cfs Sept. 8, 9, 1925 (gage height, 1.60 ft, site and datum then in use).

Remarks.--Records good. Slight diurnal fluctuation at low flow caused by small mill above station.

Revisions (water years).--WSP 803: 1935(M). WSP 823: Drainage area. WSP 1336: 1921-24, 1931(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.8	210	3.0	3,200
1.2	420	4.0	5,580
1.6	765	5.0	8,850
2.0	1,265	6.4	14,800

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	527	*328	381	519	1,390	1,470	1,260	*1,170	923	480	400	260
2	472	316	465	488	1,200	1,390	1,340	1,220	1,020	559	428	406
3	*488	311	551	*503	*3,560	1,390	*2,500	1,860	853	495	*414	350
4	450	306	602	503	4,200	1,790	2,060	2,430	*735	465	388	*280
5	374	300	*765	465	3,220	*1,680	1,720	2,020	685	480	368	328
6	344	295	735	442	3,720	1,450	1,920	1,660	638	685	355	359
7	333	311	611	435	4,940	1,340	2,940	1,790	611	620	333	1,240
8	690	344	559	388	3,000	1,560	2,290	1,860	575	593	311	675
9	899	344	611	270	2,210	1,880	1,860	1,590	559	*559	290	407
10	559	338	638	226	1,770	1,450	1,630	1,400	551	695	275	328
11	442	465	527	322	1,830	1,340	1,990	1,260	535	543	270	290
12	381	543	503	442	2,480	1,260	3,660	1,180	519	428	270	275
13	362	465	458	420	1,960	1,340	3,000	1,100	472	394	270	260
14	362	435	442	350	1,610	1,500	2,560	1,030	465	2,520	275	250
15	355	503	480	328	1,420	2,560	3,210	1,010	480	1,960	255	238
16	350	567	465	368	1,340	5,990	*14,500	1,010	480	3,650	238	230
17	344	695	355	350	3,400	5,750	5,800	923	472	2,060	230	222
18	338	685	435	350	6,660	3,640	3,860	875	488	1,250	226	242
19	338	611	611	394	4,600	2,940	3,000	809	480	971	250	238
20	344	809	611	450	3,600	2,350	2,480	776	584	1,050	260	230
21	333	695	503	407	3,290	2,040	2,130	745	535	1,360	350	234
22	322	584	465	344	2,500	1,850	1,900	715	495	1,010	338	234
23	311	543	442	414	2,040	1,680	1,770	745	511	776	300	230
24	306	543	472	527	1,770	1,700	1,570	947	458	715	270	246
25	300	543	488	543	1,860	1,770	1,450	809	407	685	242	333
26	290	668	519	488	2,640	1,590	1,340	715	381	647	230	1,810
27	285	695	495	420	2,150	1,520	1,280	705	368	559	218	3,600
28	290	575	450	442	1,980	1,420	1,210	725	355	503	210	1,900
29	311	503	428	559	1,680	1,540	1,180	787	338	472	218	1,000
30	435	374	527	1,660	-------	1,540	1,150	725	338	428	285	700
31	394	---	611	2,350	-------	1,390	-------	705	-------	400	260	-------
Total	12,329	14,694	16,205	16,167	78,020	62,110	78,560	35,296	16,311	28,012	9,027	17,395
Mean	398	490	523	522	2,690	2,004	2,619	1,139	544	904	291	580
Cfsm	0.494	0.609	0.650	0.648	3.34	2.49	3.25	1.41	0.676	1.12	0.361	0.720
In.	0.57	0.68	0.75	0.75	3.60	2.87	3.63	1.63	0.75	1.29	0.42	0.80

Calendar year 1955: Max 9,390 Min 255 Mean 1,073 Cfsm 1.33 In. 18.10
Water year 1955-56: Max 14,500 Min 210 Mean 1,050 Cfsm 1.30 In. 17.74

Peak discharge (base, 9,500 cfs).--Apr. 16 (5:30 a.m.) 21,200 cfs (7.73 ft).
* Discharge measurement made on this day.

Nolichucky River below Nolichucky Dam, Tenn.

Location.--Lat 36°03'59", long 82°52'18", on right bank 0.30 mile downstream from Nolichucky Dam, Greene County, 2.2 miles upstream from Cove Creek, 7.0 miles south of Greeneville, and at mile 45.7.

Drainage area.--1,184 sq mi.

Records available.--May 1903 to December 1908, April 1919 to October 1925 and October 1945 to September 1956 in reports of Geological Survey. Published as "near Greeneville" 1903-8, 1919-25. May 1903 to December 1908 (revised records) and April 1919 to September 1924 in Tennessee Division of Geology Bulletin 34.

Gage.--Water-stage recorder. Datum of gage is 1,173.46 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. May 1903 to December 1908 and April 1919 to October 1925, at bridge 8.4 miles upstream at different datums.

Average discharge.--22 years (1903-8, 1919-25, 1945-56), 1,745 cfs.

Extremes.--Maximum discharge during year, 23,700 cfs Apr. 16 (gage height, 13.37 ft); minimum, 20 cfs Sept. 20 (gage height, 0.84 ft); minimum daily, 108 cfs Nov. 6.
1903-8, 1919-25, 1945-56: Maximum discharge observed, 73,500 cfs Jan. 23, 1906 (gage height, 19.3 ft), site and datum then in use, from rating curve extended above 9,200 cfs; minimum, that of Sept. 20, 1956; minimum daily, 22 cfs Oct. 20, 1954.
Flood of Aug. 14, 1940, reached a discharge of 73,500 cfs, by computation of flow over dam.

Remarks.--Records good. Low flow regulated by Lake Davy Crockett since 1913 (controlled storage, 4,060 cfs-days).

Revisions.--See Records available.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

2.0	108	4.0	1,540
2.2	134	5.0	3,290
2.5	188	7.0	7,200
2.8	280	9.0	11,800
3.1	460	11.5	18,400
3.5	840		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	600	291	658	640	2,070	*2,610	1,650	*2,100	774	512	332	422
2	682	305	686	654	2,530	2,550	1,900	1,800	1,200	410	432	384
3	*589	851	402	*613	2,500	2,550	*2,590	2,530	1,200	696	421	404
4	486	408	1,570	676	4,890	2,130	2,860	2,590	*870	777	502	*391
5	480	572	499	766	4,470	2,280	2,710	2,660	1,170	796	524	781
6	482	108	402	774	*3,790	2,530	2,610	2,660	1,170	812	512	1,170
7	480	302	658	591	6,490	2,530	3,290	2,620	1,200	606	*662	1,460
8	486	303	663	592	4,600	2,390	3,520	2,610	840	604	612	1,150
9	569	299	1,150	487	3,290	2,530	2,840	2,590	702	*582	612	903
10	706	394	774	582	2,730	2,550	2,610	2,550	652	747	566	522
11	811	394	788	404	2,620	1,940	2,590	2,150	690	832	410	508
12	727	302	574	470	2,620	1,770	3,670	1,530	772	939	431	523
13	685	290	574	377	2,700	1,850	4,160	1,420	829	1,290	443	524
14	599	831	578	441	2,620	2,480	3,600	1,770	900	1,440	410	536
15	405	670	*588	395	2,590	2,570	3,880	1,490	868	2,620	418	282
16	508	601	561	454	2,520	5,530	18,300	1,900	529	4,470	426	224
17	392	666	490	448	2,570	8,890	*11,000	996	490	4,010	414	484
18	477	1,230	593	518	9,620	5,630	6,360	1,130	591	2,660	412	330
19	492	680	492	469	7,640	4,350	4,830	1,200	776	2,550	419	326
20	498	669	630	456	5,450	3,610	3,970	1,280	782	1,820	1,120	326
21	301	682	378	498	5,020	3,020	3,400	1,210	920	2,000	867	224
22	411	766	620	476	3,990	2,750	2,980	938	994	113	506	266
23	389	666	570	464	3,270	2,620	2,770	994	766	1,530	611	305
24	396	670	574	464	2,820	2,610	2,680	1,200	700	1,350	511	1,470
25	386	662	580	1,150	2,610	2,590	2,620	1,190	694	948	409	341
26	387	668	576	583	3,360	2,570	2,570	1,220	701	779	412	476
27	384	572	568	674	3,400	2,550	2,500	1,130	657	772	408	2,390
28	393	568	658	588	2,970	2,500	2,350	1,200	612	1,570	409	2,620
29	398	646	666	744	2,710	2,480	604	940	518	950	420	2,570
30	756	646	661	2,440	------	2,230	1,920	1,120	508	982	410	834
31	292	------	664	1,970	------	1,440	------	1,230	------	354	608	------
Total	15,647	16,712	19,845	20,858	108,460	90,630	113,334	51,948	24,075	40,521	15,649	23,146
Mean	505	557	640	673	3,740	2,924	3,778	1,676	802	1,307	505	772
Cfsm	0.427	0.470	0.541	0.568	3.16	2.47	3.19	1.42	0.677	1.10	0.427	0.652
In.	0.49	0.52	0.62	0.66	3.41	2.85	3.56	1.63	0.76	1.27	0.49	0.73

Calendar year 1955: Max 11,800 Min 108 Mean 1,418 Cfsm 1.20 In. 16.26
Water year 1955-56: Max 18,300 Min 108 Mean 1,478 Cfsm 1.25 In. 16.99

Peak discharge (base, 11,500 cfs).--Apr. 16 (2:30 p.m.) 23,700 cfs (13.37 ft).
* Discharge measurement made on this day.

Lick Creek at Mohawk, Tenn.

Location.--Lat 36°12'09", long 83°02'53", on right bank 0.25 mile east of Mohawk, Greene County, 0.6 mile upstream from Riley Creek, and 17.5 miles upstream from mouth.

Drainage area.--220 sq mi.

Records available.--July 1946 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,060.59 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--10 years, 232 cfs.

Extremes.--Maximum discharge during year, 8,140 cfs Apr. 16 (gage height, 15.88 ft); minimum, 10 cfs Oct. 31; minimum gage height, 1.60 ft Oct. 5.
1946-56: Maximum discharge, 10,700 cfs Jan. 31, 1950 (gage height, 16.24 ft), from rating curve extended above 5,000 cfs; minimum, 8.4 cfs Sept. 12, 1954 (gage height, 1.56 ft).

Remarks.--Records good.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 6-14, Sept. 29-30)

1.6	12	9.0	705
2.0	34	11.0	1,000
2.5	66	12.0	1,420
3.5	155	13.0	2,480
6.0	405	15.0	6,200

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	*12	*20	56	479	344	214	160	116	84	43	44
2	36	16	24	42	631	359	378	153	109	62	41	64
3	18	14	28	38	*1,670	587	793	372	70	48	59	45
4	16	16	288	36	2,420	998	668	638	61	53	41	44
5	14	16	535	33	1,530	1,120	470	278	58	*229	38	40
6	15	16	222	*32	1,580	437	*592	193	56	378	36	66
7	*31	16	78	30	2,540	*332	988	*172	*51	63	*34	152
8	320	16	57	30	1,560	493	874	160	50	50	33	94
9	96	19	123	25	569	435	364	140	49	97	30	42
10	32	20	185	24	366	284	308	128	47	67	30	*36
11	21	24	83	24	442	237	544	121	46	48	29	33
12	18	30	57	26	625	215	697	113	45	39	110	30
13	18	26	47	26	408	266	383	105	43	36	53	29
14	18	20	42	25	317	716	280	101	42	483	39	27
15	18	19	39	24	290	1,010	836	127	41	405	33	26
16	18	27	37	24	238	1,360	*6,090	108	91	527	30	25
17	18	57	34	24	1,630	1,610	2,950	95	101	1,050	29	24
18	18	55	43	24	4,820	1,090	1,220	87	61	809	27	24
19	18	96	81	32	2,000	474	537	83	62	130	27	24
20	18	107	76	99	1,560	375	399	80	50	82	74	23
21	16	50	55	91	1,470	339	337	76	51	70	226	23
22	16	34	45	58	898	309	300	74	94	62	101	23
23	13	71	41	60	477	285	274	71	188	62	46	23
24	14	147	38	150	435	268	249	102	199	105	38	23
25	13	73	38	201	535	260	228	78	80	226	34	23
26	13	89	36	194	646	226	212	70	51	239	31	23
27	15	77	33	179	488	215	200	67	45	72	29	23
28	15	44	30	232	520	203	185	67	48	57	29	23
29	20	36	29	513	453	537	173	70	40	62	29	23
30	15	26	33	969	-------	559	166	69	50	50	30	22
31	12	--	57	1,060	-------	269	-------	62	-------	47	35	-------
Total	988	1,269	2,534	4,381	31,597	16,212	21,909	4,220	2,095	5,792	1,464	1,121
Mean	31.9	42.3	81.7	141	1,090	523	730	136	69.8	187	47.2	37.4
Cfsm	0.145	0.192	0.371	0.641	4.95	2.38	3.32	0.618	0.317	0.850	0.215	0.170
In.	0.17	0.21	0.43	0.74	5.34	2.74	3.70	0.71	0.35	0.98	0.25	0.19

Calendar year 1955: Max 3,880 Min 10 Mean 175 Cfsm 0.795 In. 10.80
Water year 1955-56: Max 6,090 Min 12 Mean 256 Cfsm 1.16 In. 15.81

Peak discharge (base, 3,000 cfs).--Feb. 18 (8 a.m.) 6,020 cfs (14.91 ft); Apr. 16 (2:30 p.m.) 8,140 cfs (15.88 ft).
* Discharge measurement made on this day.

Nolichucky River near Morristown, Tenn.

Location.--Lat 36°10'49", long 83°10'32", on right bank 0.25 mile downstream from Bent Creek, 0.6 mile upstream from Susong Bridge, 1.1 miles upstream from Forgey Island, 7 miles southeast of Morristown, Hamblen County, and at mile 14.5.

Drainage area.--1,679 sq mi.

Records available.--November 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,015.78 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 6, 1925, chain gage at bridge 3¾ miles downstream at datum 10.34 ft lower. Nov. 6, 1925, to Sept. 30, 1942, water-stage recorder at site 150 ft upstream from chain gage at same datum as chain gage.

Average discharge.--35 years (1921-56), 2,169 cfs.

Extremes.--Maximum discharge during year, 28,400 cfs Apr. 17 (gage height, 16.76 ft); minimum recorded, 139 cfs Nov. 7, but may have been less during period of no gage-height record; minimum daily, 200 cfs Nov. 7.
1920-56: Maximum discharge, 61,900 cfs Aug. 14, 1940 (gage height, 22.68 ft, site and datum then in use), from rating curve extended above 39,000 cfs on basis of records for station at Embreeville and peak flow over Nolichucky Dam; minimum observed, 22 cfs Sept. 7, 28, 1925 (gage height, 1.00 ft, site and datum then in use); minimum daily, 60 cfs Sept. 7, 28, 1925.

Remarks.--Records good except those for period of no gage-height record, which are fair. Low flow partly regulated by Lake Davy Crockett (controlled storage, 4,060 cfs-days), 18 miles upstream.

Revisions (water years).--WSP 563: 1921(M). WSP 823: Drainage area. WSP 873: 1935(M). WSP 893: 1927(M), 1928, 1935, 1936-37(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.8	173	8.0	8,120
2.2	390	10.0	11,800
3.0	1,070	13.0	18,300
4.0	2,170	14.2	21,300
6.0	4,920		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	908	450	*718	825	3,070	*3,290	2,100	3,020	1,390	714	461	682
2	726	350	762	802	*4,160	3,230	2,760	1,780	1,100	682	540	741
3	776	800	853	786	6,820	3,610	4,170	3,760	1,710	530	429	416
4	656	600	1,270	684	7,580	3,810	4,260	3,820	1,120	819	505	502
5	552	900	2,530	830	8,040	3,790	3,760	3,440	1,440	*1,050	692	542
6	551	300	735	*871	8,050	3,690	*4,440	3,200	1,440	1,990	584	1,050
7	*610	*200	567	837	*9,270	3,250	4,590	*3,110	*1,440	976	*623	2,310
8	1,260	336	838	685	8,260	3,610	5,130	3,060	1,090	778	572	1,770
9	800	336	1,440	678	5,360	3,460	3,880	3,010	979	1,060	712	775
10	600	455	1,060	622	3,650	3,250	3,290	2,970	926	928	652	*956
11	800	458	1,080	670	3,670	2,800	4,380	2,590	755	896	666	606
12	950	361	908	406	3,740	2,400	4,560	2,180	834	1,060	670	608
13	800	348	721	554	3,610	2,480	5,310	1,670	·944	1,370	622	615
14	750	464	717	540	3,330	3,810	4,420	1,880	1,060	1,700	445	617
15	650	849	706	480	3,250	4,680	5,850	2,540	1,090	3,470	688	569
16	500	794	648	606	3,260	6,660	20,700	1,580	1,020	3,760	506	349
17	600	786	736	515	7,140	10,000	*21,100	2,160	784	6,530	480	291
18	500	1,240	589	531	12,800	8,660	9,900	1,040	741	4,200	390	618
19	550	1,150	781	597	13,700	6,120	6,650	1,510	896	3,200	569	386
20	550	920	737	600	9,430	4,650	5,060	1,600	995	2,150	822	384
21	550	940	730	648	7,580	3,920	4,290	1,480	1,030	2,570	2,510	358
22	400	761	568	472	6,340	3,480	3,810	1,180	1,240	1,390	916	278
23	450	932	696	622	4,800	3,250	3,500	1,270	1,360	992	784	326
24	450	911	701	779	3,860	3,190	3,300	1,570	1,080	1,420	628	628
25	450	848	650	1,230	3,680	3,160	3,230	1,500	1,180	1,620	624	1,340
26	450	894	722	1,290	4,420	3,100	3,150	1,340	892	1,200	494	453
27	450	856	678	957	4,590	3,030	3,050	1,560	836	1,010	490	1,670
28	450	687	665	1,190	4,060	2,980	2,960	1,520	793	1,370	495	2,900
29	450	650	764	1,990	3,680	4,000	1,670	1,330	720	1,540	498	2,890
30	950	749	825	4,460	-------	3,640	1,640	1,320	740	1,180	486	1,650
31	450	-- --	860	4,060	-------	2,360	-------	1,500	-- ----	989	497	- -
Total	19,589	20,325	26,255	30,817	171,000	123,360	156,910	65,490	31,605	53,144	20,050	27,280
Mean	632	678	847	994	5,897	3,979	5,230	2,113	1,054	1,714	647	909
Cfsm	0.376	0.404	0.504	0.592	3.51	2.37	3.11	1.26	0.628	1.02	0.385	0.541
In.	0.43	0.45	0.58	0.68	3.79	2.73	3.48	1.45	0.70	1.18	0.44	0.60

Calendar year 1955: Max 16,700 Min 200 Mean 1,837 Cfsm 1.09 In. 14.86
Water year 1955-56: Max 21,100 Min 200 Mean 2,038 Cfsm 1.21 In. 16.51

Peak discharge (base, 13,000 cfs).--Feb. 19 (5 a.m.) 16,300 cfs (12.15 ft); Apr. 17 (2 a.m.) 28,400 cfs (16.76 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 9 to Nov. 7; discharge estimated on basis of weather records and records for station below Nolichucky Dam and Lick Creek at Mohawk.

French Broad River below Douglas Dam, Tenn.

Location.--Lat 35°57'06", long 83°33'05", on right bank 1.0 mile downstream from Douglas Dam, 1.7 miles upstream from Millican Creek, 5.8 miles north of Sevierville, Sevier County, and at mile 31.3.

Drainage area.--4,543 sq mi.

Records available.--October 1918 to September 1956. Published as "at Dandridge" 1918-42. Gage-height records collected at Dandridge 1904-42 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 865.70 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Oct. 1, 1918, to Oct. 7, 1923, staff gage at Dandridge 13 miles upstream at datum 37.67 ft higher. Oct. 8, 1923, to June 18, 1931, staff gage and June 19, 1931, to Sept. 30, 1942, water-stage recorder, at Dandridge at datum 37.63 ft higher.

Average discharge.--38 years, 6,455 cfs (unadjusted).

Extremes.--Maximum discharge during year, 17,600 cfs Mar. 23 (gage height, 8.95 ft); minimum, 14 cfs Feb. 2 (gage height, 1.41 ft); minimum daily, 16 cfs Feb. 1.
1918-56: Maximum discharge, 95,600 cfs Aug. 31, 1940 (gage height, 20.93 ft, site and datum then in use); minimum, 4.7 cfs Mar. 10, 1943 (gage height, 1.16 ft); minimum daily, 5.5 cfs Mar. 9, 10, 1943.
Flood of May 21, 1901, reached a stage of 28.0 ft at Dandridge. Stages of 40 ft in March 1867 and 32 ft in May 1875 or 1876 are said to have occurred.

Remarks.--Records good. Flow completely regulated by Douglas Lake (see p. 226).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.4	13	2.5	440
1.5	21	3.0	900
1.6	31	4.0	2,160
1.7	46	5.0	4,170
1.8	68	7.0	9,980
2.0	132	8.6	16,000
2.2	230		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,250	*3,820	*2,340	4,660	16	13,700	11,600	4,550	4,900	8,080	8,340	6,450
2	2,200	3,890	2,220	4,000	19	*14,200	*11,700	3,820	4,730	8,460	7,440	6,520
3	3,380	3,990	2,370	3,590	56	14,200	11,700	1,220	4,760	*6,190	*7,660	6,620
4	3,490	4,120	2,370	*5,760	31	11,000	7,730	37	*5,810	450	10,000	7,630
5	2,240	4,100	2,030	6,540	25	10,800	2,120	503	5,980	5,830	8,510	7,690
6	3,030	4,010	1,840	5,140	48	7,450	36	1,070	6,120	5,800	7,690	*7,690
7	2,580	3,820	1,530	6,000	5,020	3,550	29	2,360	5,350	6,110	7,720	6,690
8	3,170	3,800	2,010	5,940	10,400	1,970	31	636	4,910	3,880	7,170	5,940
9	2,070	3,820	2,380	5,750	*12,900	29	1,050	573	5,420	4,820	7,840	6,600
10	2,240	3,850	4,430	6,630	12,600	20	2,980	1,010	5,850	5,070	7,880	7,530
11	2,220	3,800	2,270	8,630	13,100	19	2,740	1,110	4,070	5,060	7,970	7,600
12	3,020	3,760	6,520	7,320	13,200	4,160	3,800	3,460	4,300	4,690	8,030	6,690
13	2,320	2,470	5,750	3,420	12,900	4,290	4,920	4,500	4,150	3,770	8,060	7,910
14	2,310	2,790	5,940	*2,270	9,560	2,500	1,600	5,500	4,600	4,740	8,180	8,000
15	2,290	2,670	6,450	1,910	7,320	1,780	287	*6,060	4,370	3,940	8,280	7,970
16	2,260	2,500	6,720	1,800	4,560	3,430	104	5,720	3,370	7,110	8,250	6,450
17	2,300	2,590	6,990	1,730	3,490	87	42	5,820	2,840	7,690	8,440	6,840
18	2,260	3,010	7,000	1,930	9,770	4,430	32	5,640	6,360	8,060	8,470	7,970
19	2,270	3,730	3,580	1,740	13,100	5,960	30	4,560	6,420	7,330	8,030	8,340
20	3,350	3,050	2,520	1,260	15,700	10,500	28	4,300	7,580	6,600	7,630	8,440
21	3,690	881	2,320	1,240	15,900	9,040	526	5,840	7,040	7,090	6,900	8,530
22	3,710	860	2,580	1,180	15,800	9,260	631	5,830	5,730	6,580	7,400	8,530
23	2,680	1,020	2,520	1,250	16,000	10,600	480	5,740	4,630	7,320	6,910	8,220
24	2,260	938	2,480	1,340	15,800	8,140	6,860	5,840	5,600	7,560	6,950	7,660
25	2,240	971	2,250	1,410	15,700	9,500	8,990	5,890	5,640	7,560	6,930	7,050
26	2,490	806	2,520	1,480	15,700	9,020	5,840	6,150	5,180	7,410	6,870	7,110
27	2,440	433	2,480	1,360	15,700	10,100	5,050	5,740	4,120	7,410	6,740	7,140
28	2,460	2,040	2,510	816	15,200	11,500	6,030	6,820	4,060	7,440	7,100	7,080
29	2,360	2,630	2,380	868	15,000	11,400	4,590	5,190	6,720	7,470	6,670	7,050
30	2,430	2,370	2,420	469	-------	11,400	6,060	4,920	6,630	7,530	6,850	7,170
31	3,410	-------	2,580	27	-------	11,500	-------	4,780	-------	8,090	6,690	-------
Total	81,420	81,539	104,300	97,460	284,715	225,535	105,616	125,189	157,240	195,140	237,600	221,110
Mean	2,626	2,718	3,365	3,144	9,818	7,275	3,521	4,038	5,241	6,295	7,665	7,370

	Observed				Adjusted†			
Calendar year 1955:	Max 17,800	Min 14	Mean 5,364		Mean 5,301	Cfsm 1.17	In. 15.84	
Water year 1955-56:	Max 16,000	Min 16	Mean 5,237		Mean 5,514	Cfsm 1.21	In. 16.52	

* Discharge measurement made on this day.
† Adjusted for change in contents in Douglas Lake.

Little Pigeon River at Seiverville, Tenn.

Location.--Lat 35°52'34", long 83°34'36", on left bank at Eckel farmhouse, 0.5 mile downstream from city limits of Sevierville, Sevier County, and 0.5 mile downstream from West Fork Little Pigeon River.

Drainage area.--353 sq mi.

Records available.--November 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 881.44 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to June 14, 1928, staff gage at same site and datum.

Average discharge.--35 years (1921-56), 539 cfs.

Extremes.--Maximum discharge during year, 20,400 cfs Apr. 16 (gage height, 13.25 ft); minimum, 68 cfs Aug. 18 (gage height, 0.70 ft); minimum daily, 70 cfs Nov. 6.
1920-56: Maximum discharge, 32,000 cfs June 29, 1928 (gage height, 15.4 ft), from rating curve extended above 20,000 cfs; minimum, 2.8 cfs Sept. 21, 1925 (gage height, 0.33 ft); minimum daily, 8.4 cfs Sept. 9, 1925.

Remarks.--Records good. Some regulation at low flow caused by powerplants on forks. Discharge measurements generally made twice a month.

Revisions (water years).--WSP 783: 1921-34. WSP 1336: 1921(M), 1922, 1923(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 3 to Sept. 3)

0.7	68	3.0	1,430
1.0	141	5.0	3,340
1.4	310	8.0	6,680
2.0	660	10.6	11,000

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	939	76	168	360	1,020	494	602	345	395	129	105	98
2	330	74	199	300	1,680	543	628	360	621	148	105	110
3	195	74	183	270	7,540	550	660	1,450	530	168	129	106
4	144	76	472	246	4,410	654	654	1,870	340	135	118	262
5	121	72	793	228	2,810	562	588	966	260	129	115	215
6	110	70	482	211	3,750	530	1,230	737	211	205	112	970
7	126	76	366	195	3,800	530	1,330	730	177	400	107	1,440
8	1,610	90	300	177	1,700	1,130	875	822	158	330	98	543
9	602	80	442	144	1,170	974	681	602	148	325	90	335
10	340	90	410	168	875	772	595	494	135	290	86	238
11	233	90	325	161	974	660	1,620	426	124	187	86	191
12	175	76	270	161	935	582	2,130	371	115	138	141	158
13	148	82	228	151	786	654	1,250	340	112	129	118	141
14	148	532	211	129	660	1,260	1,010	310	141	1,520	102	126
15	129	494	199	135	628	2,160	3,010	335	138	1,020	102	112
16	118	310	175	135	621	4,020	11,000	310	158	582	86	105
17	105	723	161	129	2,290	2,700	2,850	280	141	1,630	80	98
18	105	459	215	124	5,100	1,560	1,710	251	129	709	72	105
19	124	494	382	175	2,660	1,080	1,230	233	115	393	382	98
20	132	448	325	242	2,090	822	958	215	204	532	995	88
21	118	340	290	191	1,660	674	786	207	148	488	765	82
22	110	280	256	168	1,230	595	674	199	177	295	496	78
23	105	256	242	264	935	536	621	191	172	340	220	82
24	98	330	224	459	800	576	536	215	201	376	138	148
25	90	265	290	404	912	512	482	215	260	265	105	366
26	86	325	315	398	1,010	470	442	195	144	233	88	419
27	84	290	256	345	744	488	415	183	129	175	80	305
28	84	251	220	398	702	488	388	175	105	155	98	285
29	100	211	199	916	562	998	366	165	95	138	102	220
30	112	175	367	3,000	------	950	350	172	88	124	101	175
31	84	--	500	1,860	------	730	------	168	---	112	132	-
Total	7,005	7,209	9,465	12,246	54,074	29,254	39,671	13,532	5,871	11,800	5,554	7,699
Mean	226	240	305	395	1,865	944	1,322	437	196	381	179	257
Cfsm	0.640	0.680	0.864	1.12	5.28	2.67	3.75	1.24	0.555	1.08	0.507	0.728
In.	0.74	0.76	1.00	1.29	5.70	3.08	4.18	1.43	0.62	1.24	0.59	0.81

Calendar year 1955: Max 6,520 Min 38 Mean 471 Cfsm 1.33 In. 18.12
Water year 1955-56: Max 11,000 Min 70 Mean 556 Cfsm 1.58 In. 21.44

Peak discharge (base, 7,000 cfs).--Feb. 3 (4:30 p.m.) 10,600 cfs (10.44 ft); Apr. 16 (3:30 a.m.) 20,400 cfs (13.25 ft).

French Broad River near Knoxville, Tenn.

Location.--Lat 35°57'33", long 83°46'28", on right bank 245 ft upstream from Riverdale Ferry, 0.65 mile downstream from Johnson Hollow, 7.6 miles upstream from confluence with Holston River, and 8 miles east of Knoxville, Knox County.
Drainage area.--5,101 sq mi.
Records available.--December 1945 to September 1956.
Gage.--Water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936.
Average discharge.--10 years (1946-56), 7,017 cfs (unadjusted).
Extremes.--Maximum discharge during year, 22,000 cfs Feb. 18 (elevation, 823.22 ft); minimum, 440 cfs July 5 (elevation, 814.57 ft); minimum daily, 950 cfs Nov. 27.
1945-56: Maximum discharge, 38,600 cfs Feb. 7, 1950 (elevation, 826.42 ft), from rating curve extended above 27,000 cfs; minimum, 67 cfs Oct. 25, 1953 (elevation, 813.38 ft); minimum daily, 68 cfs Oct. 23-26, 1953.
Remarks.--Records good. Flow regulated by Douglas Lake (see p. 226), 24.6 miles upstream.

Rating table, water year 1955-56 (elevation, in feet, and discharge, in cubic feet per second)

815.3	905	818.0	5,500
815.5	1,070	819.0	8,060
816.0	1,600	820.0	11,000
816.5	2,280	822.1	17,700
817.0	3,240		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,060	3,860	2,460	4,060	1,600	14,100	12,000	5,210	5,220	7,800	8,120	6,630
2	2,580	3,900	2,400	4,730	1,660	14,300	12,200	4,370	6,010	8,660	8,010	6,550
3	3,110	4,010	2,540	4,590	10,400	14,500	12,300	4,020	4,610	7,950	7,700	6,710
4	4,000	4,100	3,240	5,350	7,860	12,300	10,400	2,780	6,060	2,420	9,400	7,770
5	2,600	4,120	2,940	6,990	4,560	*11,500	4,420	1,830	6,260	3,870	8,450	7,850
6	2,700	4,120	2,980	5,450	5,220	9,760	1,550	2,020	6,320	6,000	8,370	8,120
7	3,130	3,930	1,960	6,240	9,610	4,300	2,440	3,430	5,900	6,610	7,800	8,760
8	4,600	*3,880	1,940	6,210	11,400	4,390	1,450	1,470	5,100	5,110	7,280	7,120
9	3,020	3,880	2,560	6,030	13,900	1,660	1,830	1,490	5,300	5,390	7,880	6,370
10	2,500	3,900	4,820	6,210	13,400	1,180	2,610	1,490	6,200	5,320	7,900	7,700
11	2,480	3,900	3,080	8,760	13,900	1,000	4,560	*1,760	4,720	*5,280	8,060	*7,850
12	3,220	3,860	5,960	8,060	13,900	3,310	7,380	3,220	*4,440	5,180	8,090	6,920
13	2,460	2,640	*6,060	*4,590	13,700	5,090	6,790	4,460	4,270	3,760	8,140	8,030
14	*2,470	2,920	6,140	2,640	11,900	4,960	3,890	5,340	5,020	6,550	8,260	8,060
15	2,450	3,220	6,760	2,110	8,040	4,920	2,730	6,840	4,600	6,530	*8,340	8,060
16	2,340	3,080	6,920	1,910	7,440	9,020	15,400	6,370	3,520	7,120	6,280	6,860
17	2,410	3,040	7,100	1,660	6,040	4,900	4,920	6,190	2,920	10,100	8,420	6,890
18	2,480	3,460	7,510	1,950	14,200	5,410	2,660	5,400	5,980	8,840	8,450	7,770
19	2,390	3,400	5,950	2,120	16,700	6,960	1,880	5,570	6,120	7,930	8,030	8,370
20	3,060	3,860	1,850	1,520	17,600	10,700	1,500	3,980	7,760	7,020	8,760	8,420
21	3,790	1,980	2,830	1,450	*17,500	10,000	1,580	5,870	8,010	7,750	7,490	8,510
22	3,820	1,190	2,680	1,270	16,900	10,100	1,570	5,880	5,450	7,100	7,880	8,590
23	2,900	1,260	2,790	1,400	16,500	10,700	1,210	6,020	5,650	7,540	7,310	8,370
24	2,540	1,370	2,740	1,820	16,400	8,160	5,960	6,030	5,250	8,030	7,050	7,850
25	2,330	1,240	2,460	1,870	16,400	10,500	*8,200	6,640	6,420	7,800	7,070	7,640
26	2,470	1,170	2,890	1,850	16,600	9,970	6,830	6,080	5,500	7,620	7,200	7,460
27	2,580	950	2,750	1,910	16,200	9,820	5,200	5,570	4,300	7,590	6,660	7,540
28	2,470	1,090	2,760	1,450	15,800	11,800	5,860	6,900	4,170	7,540	7,230	7,380
29	2,440	2,750	2,600	1,760	15,300	12,300	5,420	5,880	6,050	7,540	6,810	7,310
30	2,380	2,600	2,740	4,520	-------	12,400	6,310	4,940	6,760	7,570	6,890	7,460
31	3,570	-------	3,170	3,450	-------	12,100	-------	4,900	-------	7,850	6,760	-------
Total	88,350	88,680	115,580	113,930	350,630	262,110	161,050	141,950	163,890	211,370	242,090	228,920
Mean	2,850	2,956	3,728	3,675	12,090	8,455	5,368	4,579	5,463	6,818	7,809	7,631

	Observed						Adjusted†					
Calendar year 1955:	Max	21,000	Min	216	Mean	5,842	Mean	5,779	Cfsm	1.13	In.	15.38
Water year 1955-56:	Max	17,600	Min	950	Mean	5,925	Mean	6,202	Cfsm	1.22	In.	16.55

* Discharge measurement made on this day.
† Adjusted for change in contents in Douglas Lake.

Steve Keesling Spring at Sugar Grove, Va.

Location.--Lat 36°46'27", long 81°25'05", at Sugar Grove, Smyth County.
Records available.--July 1928, November 1947 to September 1956 (discharge measurements only), discontinued.
Extremes.--Maximum discharge measured during year, 3.30 cfs May 4; minimum measured, 1.75 cfs Jan. 19.
1928, 1947-56: Maximum discharge measured, 3.79 cfs July 30, 1928; minimum measured, 1.74 cfs Sept. 2, 1952.
Remarks.--Discharge measurements made 200 ft below spring.

Discharge measurements, in cubic feet per second, water year October 1955 to September 1956

Oct. 4..... 1.87	Feb. 15..... 2.94	June 7..... 2.52
Nov. 1..... 2.01	Mar. 22..... 2.70	July 12..... 2.11
Dec. 13..... 1.97	Apr. 2..... 2.97	Aug. 7..... 2.08
Jan. 19..... 1.75	May 4..... 3.30	Sept.11..... 1.91

South Fork Holston River at Riverside, near Chilhowie, Va.

Location.--Lat 36°45'37", long 81°37'53", on right bank 400 ft upstream from highway bridge at Riverside, Smyth County, 900 ft upstream from Spring Branch, 3.2 miles downstream from Redstone Branch, and 4 miles southeast of Chilhowie.

Drainage area.--76.1 sq mi.

Records available.--November 1920 to November 1931, July 1942 to September 1956. Prior to October 1924, published as "near Chilhowie." June 1907 to December 1909 at site 4½ miles downstream, published as "near Chilhowie," records not equivalent.

Gage.--Water-stage recorder. Datum of gage is 2,106.77 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Nov. 1, 1920, to Nov. 14, 1931, chain gage at site 400 ft downstream at same datum.

Average discharge.--24 years (1921-31, 1942-56), 105 cfs.

Extremes.--Maximum discharge during year, 2,070 cfs Apr. 16 (gage height, 6.20 ft); minimum, 16 cfs Nov. 29 (gage height, 1.10 ft), result of freezeup.
1920-31, 1942-56: Maximum discharge, 6,000 cfs June 12, 1923 (gage height, 9.0 ft, from graph based on gage readings, site and datum then in use), from rating curve extended above 1,100 cfs by logarithmic plotting; minimum recorded, 2 cfs Aug. 26, Oct. 15, 1943, Aug. 9, 11, 1944, Oct. 19, 1945; minimum daily, 8 cfs July 19, 1926.

Remarks.--Records good. Diurnal fluctuation at low flow caused by mill 500 ft above station prior to August 1951.

Revisions (water years).--WSP 1033: 1943-44(m). WSP 1276: 1923(M). WSP 1386: Drainage area.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.1	16	2.0	176
1.2	26	4.0	810
1.4	50	5.0	1,300
1.7	102	6.0	1,930

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	19	21	26	82	113	140	124	63	33	30	29
2	23	19	20	24	79	106	124	155	63	33	30	28
3	*23	20	21	*23	275	109	117	*416	60	34	29	26
4	23	*20	26	23	416	200	106	461	*58	36	30	25
5	22	20	30	22	332	*191	*96	314	56	37	31	25
6	20	20	26	22	350	163	137	236	53	66	31	30
7	20	21	24	22	386	134	296	191	50	44	29	*39
8	27	21	*24	21	251	140	248	158	49	36	27	31
9	24	21	26	24	*171	122	191	134	47	43	*27	28
10	23	23	24	26	129	113	158	120	47	44	28	28
11	22	26	23	26	113	106	182	109	46	36	27	26
12	22	25	23	25	102	100	293	98	40	*35	29	24
13	22	24	24	24	92	137	287	94	40	43	29	24
14	22	24	21	24	84	260	248	88	42	72	28	23
15	22	22	21	24	79	356	394	113	47	61	27	22
16	22	23	23	24	74	371	1,450	206	44	66	26	22
17	23	29	31	23	90	446	643	188	61	63	26	23
18	23	25	27	26	338	356	431	147	47	50	25	22
19	24	27	30	24	401	281	326	122	42	44	28	21
20	24	29	29	24	344	230	260	111	43	43	30	21
21	23	26	29	23	308	200	215	96	43	44	33	21
22	22	24	28	23	230	179	179	88	42	40	31	21
23	22	24	27	24	168	160	158	80	42	36	28	21
24	22	24	28	25	142	171	140	79	40	36	28	23
25	22	25	29	24	171	182	122	72	37	37	26	23
26	22	25	28	24	254	176	111	69	35	40	26	30
27	23	25	28	24	212	155	106	66	34	36	26	150
28	24	24	26	23	173	134	98	68	34	35	26	96
29	23	24	26	28	132	158	96	69	33	36	26	58
30	24	23	28	80	------	166	92	61	33	35	26	46
31	21	-------	28	117	-------	160	---------	56	--- ----	31	28	----- --
Total	703	702	799	892	5,978	5,875	7,444	4,389	1,371	1,325	871	1,006
Mean	22.7	23.4	25.8	28.8	206	190	248	142	45.7	42.7	28.1	33.5
Cfsm	0.298	0.307	0.339	0.378	2.71	2.50	3.26	1.87	0.601	0.561	0.369	0.440
In.	0.34	0.34	0.39	0.44	2.92	2.88	3.64	2.16	0.67	0.65	0.43	0.49

Calendar year 1955: Max 1,700 Min 19 Mean 107 Cfsm 1.41 In. 19.02
Water year 1955-56: Max 1,450 Min 19 Mean 85.7 Cfsm 1.13 In. 15.35

Peak discharge (base, 500 cfs).--Feb. 18 (7 to 8 p.m.) 506 cfs (3.10 ft); Apr. 16 (6 a.m.) 2,070 cfs (6.20 ft); May 3 (10 p.m.) 566 cfs (3.29 ft).
* Discharge measurement made on this day.

Beaverdam Creek at Damascus, Va.

Location.--Lat 36°37'40", long 81°47'28", on right bank in pumphouse of American Cyanamid Co., at Damascus, Washington County, 0.65 mile upstream from mouth.

Drainage area.--56.0 sq mi.

Records available.--August 1947 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 1,946.66 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--9 years, 96.8 cfs.

Extremes.--Maximum discharge during year, 3,880 cfs Apr. 16 (gage height, 5.14 ft); minimum, 7.6 cfs Sept. 22; minimum gage height, 0.27 ft Oct. 6.
1947-56: Maximum discharge, 5,280 cfs Mar. 18, 1955 (gage height, 5.75 ft); minimum, 2.0 cfs Sept. 8, 1954 (gage height, 0.15 ft).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Plant diverts about 0.5 cfs 800 ft above station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 22-30)

0.3	9.0	2.0	415
.6	42	3.0	895
.8	72	3.5	1,280
1.0	112	4.0	1,870
1.5	240	5.0	3,680

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	12	25	b34	213	152	130	89	80	37	41	a13
2	15	13	25	b32	200	152	121	83	66	26	70	a12
3	*14	14	26	*30	523	180	114	*234	52	45	69	a11
4	9.8	*14	52	30	523	354	104	350	*42	31	49	a11
5	9.0	13	97	b29	368	*264	*91	231	36	28	42	19
6	9.0	14	66	b29	344	208	187	168	32	36	37	18
7	14	14	53	29	423	178	350	140	30	82	31	35
8	31	19	*46	b30	302	195	255	112	29	42	29	24
9	19	15	46	b33	205	175	182	93	25	53	*25	19
10	13	18	42	b36	*152	162	145	85	29	52	20	16
11	11	31	38	b36	155	148	158	78	24	38	25	16
12	9.8	26	b35	b35	150	138	192	70	22	*32	32	15
13	9.8	22	32	b34	133	200	172	67	17	32	24	14
14	a9.8	22	32	b33	114	340	162	62	28	519	26	13
15	a9.8	28	29	b33	106	479	554	87	49	326	20	13
16	a9.8	26	32	b33	99	543	2,600	93	29	165	17	12
17	a10	53	31	b32	484	620	743	82	28	192	16	11
18	a11	34	31	b36	1,320	399	415	70	26	249	18	13
19	14	42	38	b34	690	274	288	61	30	158	29	9.8
20	12	50	37	b33	598	210	216	56	64	128	52	11
21	11	36	32	b32	503	180	172	49	52	160	80	9.8
22	11	30	b31	b32	316	165	150	45	82	108	40	9.0
23	9.8	29	30	b32	210	148	130	49	56	78	25	11
24	9.8	37	31	b32	185	152	112	56	48	76	19	14
25	11	31	34	32	274	165	99	43	37	87	15	14
26	12	45	31	31	447	155	91	38	31	124	14	52
27	12	38	28	b31	312	135	83	40	26	97	12	284
28	12	32	25	b32	246	119	78	45	25	76	9.8	162
29	22	25	24	44	178	158	76	45	23	70	11	74
30	19	25	34	370	-------	162	74	38	29	62	12	53
31	13	-------	36	340	-------	155	-------	40	-------	48	a12	-------
Total	403.4	808	1,149	1,659	9,773	7,065	8,244	2,799	1,147	3,255	921.8	988.6
Mean	13.0	26.9	37.1	53.5	337	228	275	90.3	38.2	105	29.7	33.0
Cfsm	0.232	0.480	0.662	0.955	6.02	4.07	4.91	1.61	0.682	1.87	0.530	0.589
In.	0.27	0.54	0.76	1.10	6.49	4.69	5.48	1.86	0.76	2.16	0.61	0.66

Calendar year 1955: Max 2,820 Min 6.4 Mean 110 Cfsm 1.96 In. 26.75
Water year 1955-56: Max 2,600 Min 9.0 Mean 104 Cfsm 1.86 In. 25.38

Peak discharge (base, 600 cfs).--Feb. 3 (7 p.m.) 642 cfs (2.54 ft); Feb. 18 (1 p.m.) 1,590 cfs (3.85 ft); Mar. 16 (12 p.m.) 742 cfs (2.76 ft); Apr. 16 (2 a.m.) 3,880 cfs (5.14 ft); July 14 (7 a.m.) 928 cfs (3.03 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 South Fork Holston River at Riverside and South Fork Holston River at Vestal.

b Stage-discharge relation affected by ice.

South Fork Holston River at Vestal, Va.

Location.--Lat 36°39'06", long 81°50'39", on right bank 500 ft upstream from bridge on U. S. Highway 58 at Vestal, Washington County, 0.7 mile downstream from Laurel Creek, 3.2 miles northwest of Damascus, and 4.9 miles upstream from Middle Fork Holston River.

Drainage area.--301 sq mi.

Records available.--November 1931 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,792.30 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--24 years (1932-56), 448 cfs.

Extremes.--Maximum discharge during year, 9,500 cfs Apr. 16 (gage height, 12.50 ft); minimum, 60 cfs Jan. 15 (gage height, 2.39 ft, but may have been lower during period Jan. 4-28); minimum daily, 74 cfs Sept. 22, 23.
1931-56: Maximum discharge, 11,400 cfs Mar. 18, 1955 (gage height, 13.73 ft); minimum, 30 cfs Oct. 14, 1941, Dec. 24, 1943 (gage height, 2.16 ft); minimum daily, 60 cfs Sept. 18, 1954.

Remarks.--Records good. Some diurnal fluctuation caused by powerplant above station.

Revisions.--WSP 823: Drainage area.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 30				Jan. 31 to Sept. 30			
2.5	77	4.0	500	2.4	61	5.0	1,030
2.7	115	5.0	1,040	2.6	95	8.0	5,630
3.0	178	6.0	1,780	3.0	185	11.0	7,320
3.5	313			4.0	510		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	93	123	127	g650	600	600	502	410	234	182	107
2	95	90	127	143	650	570	546	522	398	155	185	115
3	*88	95	131	*139	g1,900	613	530	*1,520	285	180	220	105
4	84	*95	180	g139	g2,180	1,090	486	1,820	*450	188	172	95
5	81	93	283	g123	g1,640	940	*446	1,150	285	172	170	101
6	79	91	218	g129	g1,590	800	677	880	255	229	160	101
7	90	99	189	g137	1,900	675	1,320	725	243	270	148	*180
8	152	111	*169	g103	1,240	750	1,060	625	223	182	137	133
9	121	97	176	g110	850	650	825	518	209	204	*128	107
10	95	109	163	g115	650	600	675	466	204	220	119	99
11	90	154	137	g131	625	555	725	422	188	*168	122	91
12	88	141	125	g131	560	530	1,060	394	178	148	144	90
13	81	127	121	g119	506	880	1,000	372	168	153	137	84
14	88	125	118	g114	454	1,480	880	378	175	1,270	130	82
15	88	135	112	g113	426	2,000	2,200	494	212	750	122	79
16	88	146	111	g112	*394	2,220	6,900	700	182	478	105	77
17	95	214	114	g111	1,240	2,490	3,030	650	185	482	107	81
18	95	163	127	g121	3,130	1,720	1,860	518	190	482	105	90
19	103	178	167	g133	2,490	1,240	1,320	442	182	357	139	82
20	99	202	143	g176	2,130	1,000	1,030	390	226	309	185	77
21	91	165	139	g139	1,770	850	825	354	234	198	240	75
22	86	143	129	g121	1,180	775	725	324	255	279	185	74
23	86	141	135	g139	850	725	650	324	212	232	137	74
24	86	156	137	g139	725	775	570	330	201	232	122	81
25	86	146	146	g135	935	775	510	285	172	267	113	86
26	84	178	139	g133	1,420	725	478	267	155	315	107	175
27	86	160	131	g119	1,090	650	438	270	148	252	105	1,060
28	86	150	125	g121	910	590	406	315	144	226	101	600
29	125	121	125	169	700	725	394	321	139	273	103	339
30	127	121	143	g1,130	-------	725	375	270	168	267	109	258
31	105	-------	146	1,210	-------	675	-------	267	-------	207	117	-------
Total	2,959	4,039	4,529	6,081	34,785	29,393	32,541	16,815	6,676	9,379	4,356	4,798
Mean	95.5	135	146	196	1,199	948	1,085	542	223	303	141	160
Cfsm	0.317	0.449	0.485	0.651	3.98	3.15	3.60	1.80	0.741	1.01	0.468	0.532
In.	0.37	0.50	0.56	0.75	4.29	3.63	4.02	2.08	0.83	1.16	0.54	0.59

Calendar year 1955: Max 7,000 Min 72 Mean 464 Cfsm 1.54 In. 20.92
Water year 1955-56: Max 6,900 Min 74 Mean 427 Cfsm 1.42 In. 19.32

Peak discharge (base, 3,000 cfs).--Feb. 18 (2 to 4 p.m.) 3,630 cfs (8.03 ft); Apr. 16 (3 a.m.) 9,500 cfs (12.50 ft).

* Discharge measurement made on this day.

g Computed from graph based on 12 times daily-radio-gage readings furnished by Tennessee Valley Authority.

Middle Fork Holston River at Groseclose, Va.

Location.--Lat 36°53'19", long 81°20'51", on left bank at downstream side of highway bridge in village of Groseclose, Smyth County, 0.2 miles upstream from Rocky Spring Branch and 10 miles northeast of Marion.

Drainage area.--7.39 sq mi.

Records available.--November 1947 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 2,442.86 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--8 years (1948-56), 8.77 cfs.

Extremes.--Maximum discharge during year, 167 cfs Apr. 16 (gage height, 3.99 ft); minimum daily discharge, 2.8 cfs Nov. 29, 30, Dec. 1, 2, 10-15, 23-26, 29, Jan. 2, 3, 22; minimum gage height, 1.60 ft during period of no gage-height record Dec. 10 to Jan. 5.
1947-56: Maximum discharge, 813 cfs July 6, 1953 (gage height, 7.42 ft); minimum, 1.8 cfs Jan. 24, 1948, result of freezeup; minimum gage height, 1.48 ft Nov. 25, 1950, result of freezeup; minimum daily discharge, 2.7 cfs Nov. 13-15, 1954.

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

Revisions (water years).--WSP 1236: 1948(M), 1949-51.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 29		Jan. 30 to Sept. 30			
1.5	2.4	1.6	3.0	2.5	33
1.6	3.0	1.7	4.0	3.0	67
1.7	3.8	1.8	5.6	4.0	167
1.8	4.8	2.0	11		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	*3.3	2.8	2.9	5.2	8.9	6.8	14	7.4	4.1	4.6	3.6
2	3.6	3.2	2.8	2.8	5.4	8.9	7.4	*16	7.1	4.4	4.6	3.6
3	3.6	3.3	2.9	2.8	10	12	*8.0	40	6.8	4.1	4.4	3.6
4	3.5	3.3	3.4	2.9	17	15	6.8	26	6.4	3.8	4.3	3.6
5	3.5	3.3	3.2	*3.1	15	12	6.6	19	6.2	4.0	4.2	3.6
6	*3.5	3.3	*3.0	3.2	22	10	15	15	*6.2	*5.6	4.2	4.2
7	3.5	3.5	2.9	3.2	21	*9.5	18	13	6.0	4.6	4.1	3.9
8	3.7	3.4	2.9	3.2	11	11	15	11	6.0	4.8	*4.0	3.6
9	3.5	3.3	3.0	3.1	8.6	8.3	11	10	6.0	4.6	4.0	3.6
10	3.3	3.5	2.8	3.1	6.8	7.7	9.8	9.5	5.8	4.4	4.0	3.6
11	3.3	3.8	2.8	3.1	8.6	7.4	14	8.9	5.8	4.3	4.1	3.6
12	3.3	3.5	2.8	3.3	7.1	7.4	12	8.6	5.6	4.3	4.0	3.5
13	3.4	3.4	2.8	3.2	6.4	12	10	7.7	5.6	4.4	4.0	*3.5
14	3.4	3.4	2.8	3.2	*6.0	22	11	10	5.8	5.0	4.0	3.5
15	3.3	3.4	2.8	3.2	5.8	19	39	29	6.0	5.0	3.9	3.5
16	3.5	3.5	3.0	3.2	5.4	29	93	21	5.8	5.0	3.8	3.4
17	3.4	3.2	3.1	3.2	16	24	47	15	5.8	4.6	3.8	3.4
18	3.4	3.0	3.2	3.1	28	26	32	11	7.1	4.4	3.9	3.5
19	3.5	3.3	3.3	3.1	20	21	23	9.5	5.4	4.4	4.1	3.5
20	3.3	3.2	3.1	3.1	26	16	18	9.2	5.6	4.8	4.0	3.4
21	3.3	3.1	3.0	2.9	17	13	15	8.0	5.8	4.4	4.3	3.4
22	3.3	3.0	2.9	2.8	12	11	13	7.7	5.2	4.3	4.0	3.4
23	3.3	3.0	2.8	3.3	9.2	10	12	7.4	5.0	4.3	3.8	3.4
24	3.4	2.9	2.8	3.1	13	11	11	7.1	4.8	4.4	3.8	3.8
25	3.3	2.9	2.8	3.2	21	9.2	10	6.6	4.6	6.6	3.7	3.6
26	3.3	3.0	2.8	3.4	19	8.9	9.8	6.4	4.8	4.6	3.7	4.1
27	3.3	2.9	3.0	3.1	16	8.3	9.2	6.6	4.6	4.4	3.6	13
28	3.2	2.9	2.9	3.1	13	7.7	9.5	9.2	4.6	9.5	3.7	5.2
29	3.5	2.8	2.8	4.8	9.8	10	8.9	8.0	4.1	9.0	3.7	4.2
30	3.4	2.8	3.2	14	-------	8.3	9.5	7.4	4.4	6.4	3.6	4.0
31	3.3	---	2.9	5.6	-------	7.4	-------	6.8	-------	5.0	3.6	-----
Total	105.8	96.4	91.3	111.3	381.3	391.9	511.3	384.6	170.3	153.5	123.5	119.8
Mean	3.41	3.21	2.95	3.59	13.1	12.6	17.0	12.4	5.68	4.95	3.98	3.99
Cfsm	0.461	0.434	0.399	0.486	1.77	1.71	2.30	1.68	0.769	0.670	0.539	0.540
In.	0.53	0.48	0.46	0.56	1.91	1.97	2.57	1.94	0.86	0.77	0.62	0.60

Calendar year 1955: Max 114 Min 2.8 Mean 9.03 Cfsm 1.22 In. 16.56
Water year 1955-56: Max 93 Min 2.8 Mean 7.22 Cfsm 0.977 In. 13.27

Peak discharge (base, 90 cfs).--Apr. 16 (1:30 a.m.) 167 cfs (3.99 ft); May 15 (12 m.) 106 cfs (3.44 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 3-6, Dec. 11 to Jan. 5, 7-12, 21-27, June 29 to July 6; discharge estimated on basis of recorded range in stage, weather records, and records for Reed Creek at Grahams Forge and Middle Fork Holston River at Sevenmile Ford.

Middle Fork Holston River at Sevenmile Ford, Va.

Location.--Lat 36°48'26", long 81°37'20", on right bank at downstream side of bridge on U. S. Highway 11 at Sevenmile Ford, Smyth County, 0.3 mile upstream from Meade Creek and 3.3 miles downstream from Walker Creek.

Drainage area.--132 sq mi.

Records available.--July 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,960.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--14 years, 155 cfs.

Extremes.--Maximum discharge during year, 5,020 cfs Apr. 16 (gage height, 8.62 ft); minimum, 13 cfs Oct. 4 (gage height, 2.03 ft); minimum daily, 21 cfs Oct. 4.
1942-56: Maximum discharge, 5,880 cfs Aug. 4, 1947 (gage height, 9.86 ft), from rating curve extended above 2,800 cfs on basis of slope-area determinations at gage heights 8.98 and 9.86 ft; minimum, 9 cfs Sept. 26, 1944 (gage height, 1.32 ft); minimum daily, 20 cfs Sept. 26, 1944.

Remarks.--Records good. Some diurnal fluctuation at low flow caused by mill 9 miles above station.

Revisions (water years).--WSP 973: 1942(m).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

2.1	19	4.0	790
2.2	31	6.0	2,050
2.5	90	7.0	2,900
2.8	180	8.0	4,180
3.2	370		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	30	29	30	88	124	162	207	84	40	54	37
2	86	30	29	33	86	118	136	261	82	44	42	31
3	*39	27	29	*31	261	146	198	*818	74	40	37	30
4	21	*35	40	31	435	395	184	708	*74	52	44	30
5	31	23	56	33	305	*280	*170	400	68	66	39	28
6	30	29	44	31	400	198	336	285	66	256	40	25
7	31	31	39	29	614	156	608	225	60	152	37	*31
8	40	33	*35	27	*315	202	380	180	56	86	35	33
9	30	30	39	29	180	230	266	152	54	76	*35	30
10	30	33	37	29	130	180	216	136	54	84	37	29
11	29	44	30	29	118	148	266	124	54	70	35	31
12	29	44	31	31	105	130	430	102	50	*62	37	29
13	30	33	30	29	98	370	330	108	50	60	39	27
14	31	40	30	31	86	790	256	112	54	90	35	26
15	31	33	30	26	86	680	884	200	70	116	35	27
16	31	37	29	29	80	708	3,050	320	56	139	33	25
17	33	48	26	31	306	762	982	238	88	102	37	29
18	30	37	33	27	845	555	658	176	70	86	35	29
19	37	44	37	37	530	495	460	136	78	70	37	29
20	29	42	33	37	735	370	345	130	64	66	46	29
21	29	39	33	31	495	305	266	110	64	64	50	26
22	27	35	31	30	290	275	234	96	66	56	48	25
23	29	33	37	37	194	225	194	92	62	50	40	24
24	30	29	30	33	173	216	162	86	62	52	37	40
25	27	39	37	35	410	189	145	82	56	60	35	62
26	27	33	35	37	495	173	133	78	50	72	35	72
27	29	29	39	33	280	156	127	76	60	58	30	310
28	29	35	33	33	216	139	118	100	40	54	33	142
29	37	25	31	52	152	207	112	115	44	58	31	92
30	35	30	35	220	------	261	112	86	44	60	30	80
31	30	----	30	173	------	212	------	78	------	56	30	----
Total	1,085	1,030	1,057	1,324	8,508	9,395	11,920	6,019	1,854	2,397	1,168	1,456
Mean	35.0	34.3	34.1	42.7	293	303	397	194	61.8	77.3	37.7	48.5
Cfsm	0.265	0.260	0.258	0.323	2.22	2.30	3.01	1.47	0.468	0.586	0.286	0.367
In.	0.31	0.29	0.30	0.37	2.39	2.65	3.36	1.70	0.52	0.68	0.33	0.41

Calendar year 1955: Max 2,550 Min 21 Mean 164 Cfsm 1.24 In. 16.86
Water year 1955-56: Max 3,050 Min 21 Mean 129 Cfsm 0.977 In. 13.31

Peak discharge (base, 2,000 cfs).--Apr. 16 (4 a.m.) 5,020 cfs (8.62 ft).
* Discharge measurement made on this day.

South Fork Holston River below South Holston Dam, Tenn.

Location.--Lat 36°31'25", long 82°05'50", on right bank 1,900 ft downstream from South Holston Dam powerhouse, 1.0 mile upstream from bridge at Bristol waterworks, 1.0 mile upstream from Thomas Creek, 6.7 miles southeast of Bristol, Sullivan County, and at river mile 49.4.

Drainage area.--703 sq mi.

Records available.--July 1951 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,450.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--5 years, 796 cfs (unadjusted).

Extremes.--Maximum discharge during year, 2,850 cfs Sept. 28 (gage height, 37.33 ft); minimum, 0.8 cfs Apr. 11 (gage height, 32.32 ft); minimum daily, 1.3 cfs Apr. 10. 1951-56: Maximum discharge, 3,360 cfs Sept. 13, 1953; no flow for part of Oct. 27, 1954; minimum daily, 0.5 cfs Oct. 26, 1954.

Remarks.--Records good except those below 50 cfs, which are fair. Flow completely regulated by South Holston Lake (see p. 226).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

32.3	0.6	33.1	45
32.4	1.8	33.4	93
32.5	3.8	33.9	213
32.6	6.6	34.5	425
32.7	10	35.5	960
32.8	16	36.5	1,860
32.9	23	37.3	2,810

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,790	8.5	1,290	1,600	7.7	6.0	8.1	8.1	915	9.6	1,820	7.7
2	1,810	*8.5	340	1,040	679	6.6	8.1	8.1	7.4	596	*1,820	7.4
3	1,820	9.3	723	682	550	7.7	8.5	11	7.0	990	1,790	2,220
4	*1,870	9.3	8.9	595	70	8.5	8.9	9.6	1,750	7.0	1,180	2,430
5	1,800	8.5	758	540	8.9	8.1	8.5	8.9	*1,410	6.6	7.7	*2,380
6	1,890	7.7	*8.1	81	9.6	*7.7	10	8.5	998	466	1,130	2,330
7	1,830	8.1	7.7	1,170	*150	7.7	496	8.5	932	7.0	1,040	2,410
8	1,790	635	21	46	261	319	9.6	8.1	1,230	7.0	1,110	152
9	1,510	789	261	589	1,140	110	8.9	7.7	7.7	688	870	6.6
10	1,640	8.9	7.7	663	1,160	8.1	1.3	7.7	7.7	*751	960	2,280
11	1,690	8.1	117	275	9.4	7.7	1.6	7.7	816	790	7.7	2,320
12	1,610	7.7	1,380	752	7.4	7.4	3.4	9.0	696	767	7.4	2,550
13	1,700	7.7	892	489	219	8.9	41	8.1	710	750	1,520	2,620
14	1,720	800	1,260	7.0	180	12	7.7	8.0	706	74	1,530	2,630
15	1,580	954	784	7.0	7.4	9.6	21	1,970	704	7.7	1,510	1,520
16	819	1,090	1,440	7.0	398	285	19	1,170	7.0	783	1,530	14
17	1,310	999	284	7.0	295	10	9.6	574	7.7	831	1,530	2,410
18	2,150	999	7.4	7.0	490	8.9	8.9	55	700	828	7.7	2,630
19	2,310	1,060	864	7.4	327	8.5	7.7	6.6	699	808	7.4	2,640
20	2,480	8.5	507	7.4	102	8.1	8.1	7.0	642	805	1,470	2,620
21	2,470	1,580	637	7.4	464	7.7	7.7	939	697	7.0	8.9	2,630
22	1,070	1,610	720	7.4	205	7.7	8.1	947	727	7.0	7.7	166
23	9.6	1,580	518	7.4	30	7.7	7.7	960	6.6	1,840	7.4	7.0
24	9.3	1,550	7.4	7.7	7.0	8.1	7.7	964	6.6	1,750	1,500	2,390
25	8.5	1,570	7.0	7.7	8.1	8.1	7.7	892	758	404	7.7	2,680
26	8.5	875	6.6	7.7	7.7	7.7	7.7	7.4	1,260	6.3	7.4	2,710
27	8.5	8.5	57	7.7	7.0	7.7	7.7	624	7.0	1,060	1,320	1,140
28	8.5	727	10	7.7	6.6	7.7	7.7	953	890	7.0	1,420	1,710
29	13	1,430	7.0	7.7	6.3	8.5	8.1	858	592	6.6	1,470	8.9
30	8.5	1,320	400	30	--------	8.5	8.1	822	1,340	1,770	1,420	7.4
31	8.5	--------	1,410	7.7	--------	8.1	--------	894	--------	1,790	1,450	--------
Total	38,741.9	19,677.3	14,740.8	8,677.9	6,813.1	943.0	774.1	12,762.0	19,236.7	18,619.8	29,467.0	49,627.0
Mean	1,250	656	476	280	235	30.4	25.8	412	641	601	951	1,654

	Observed			Adjusted†			
Calendar year 1955:	Max 3,220	Min 3.2	Mean 904	Mean 909	Cfsm 1.29	In. 17.55
Water year 1955-56:	Max 2,710	Min 1.3	Mean 601	Mean 808	Cfsm 1.15	In. 15.65

* Discharge measurement made on this day.
† Adjusted for change in contents in South Holston Lake.

Beaver Creek near Wallace, Va.

Location.--Lat 36°38'25", long 82°06'42", on left bank 0.4 mile upstream from Clear Creek, 1.3 miles southeast of Wallace, Washington County, and 3.8 miles northeast of Bristol.
Drainage area.--13.7 sq mi.
Records available.--October 1945 to September 1956.
Gage.--Water-stage recorder and concrete control. Datum of gage is 1,808.93 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.
Average discharge.--11 years, 14.1 cfs.
Extremes.--Maximum discharge during year, 186 cfs Apr. 15 (gage height, 4.27 ft); minimum, 2.8 cfs Jan. 6, minimum gage height, 1.30 ft Sept. 22.
1945-56: Maximum discharge, 383 cfs July 15, 1948 (gage height, 5.94 ft), from rating curve extended above 230 cfs on basis of velocity-area studies; minimum, that of Jan. 6, 1956; minimum gage height, 1.05 ft Dec. 1-12, 1946.
Remarks.--Records good except those for periods of no gage-height record, which are fair.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-7		Oct. 8 to Apr. 15				Apr. 16 to Sept. 30			
1.4	3.0	1.3	2.4	1.8	22	1.3	3.4	1.7	16
1.5	5.8	1.4	3.8	2.0	34	1.4	5.8	2.0	34
		1.5	7.0	3.0	94	1.5	8.6	3.0	94
		1.6	11	4.0	166	1.6	12		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	3.4	4.8	3.2	12	26	24	23	15	8.3	6.1	4.8
2	5.0	3.5	3.7	3.2	12	27	23	22	14	8.6	6.1	5.1
3	5.0	*3.7	4.0	3.1	18	36	22	50	13	8.9	6.1	4.8
4	5.0	3.6	4.8	3.1	27	39	*22	37	12	8.9	*6.1	5.1
5	4.7	3.6	5.5	*3.0	21	29	21	30	12	8.6	6.1	5.3
6	*4.4	3.6	4.8	3.0	24	27	32	28	*12	9.3	5.8	7.8
7	5.0	3.8	*4.1	3.0	21	*24	30	27	12	8.9	5.8	*7.8
8	5.4	3.8	4.1	3.0	*20	27	27	24	11	8.6	5.3	6.4
9	3.8	3.8	4.4	3.4	18	23	25	23	11	8.9	5.3	5.6
10	3.5	4.1	4.1	3.6	15	22	24	*22	11	8.3	5.6	5.3
11	3.4	4.7	3.7	3.7	16	21	26	21	11	*7.8	5.8	5.1
12	3.4	4.6	3.5	3.6	14	25	23	20	10	7.8	5.8	4.8
13	3.4	4.4	3.5	3.4	14	39	22	20	10	7.8	6.1	4.4
14	3.7	4.4	3.5	3.4	13	47	22	24	18	23	5.8	4.4
15	3.7	4.1	3.5	3.4	13	42	102	23	11	10	5.3	4.4
16	3.5	4.4	3.4	3.5	12	52	88	21	11	9.6	5.3	4.4
17	3.5	5.2	3.4	3.3	28	45	58	19	12	9.6	5.1	4.4
18	3.7	4.6	3.7	3.7	46	44	47	18	11	8.0	5.1	4.6
19	3.5	5.0	3.5	3.6	38	39	41	17	11	7.8	5.3	4.4
20	3.4	5.2	3.5	3.4	40	36	36	16	11	7.5	5.8	4.1
21	3.4	4.8	3.4	3.3	35	34	35	16	11	7.2	6.4	4.1
22	3.4	4.5	3.4	3.3	31	32	32	16	9.6	8.3	5.3	4.1
23	3.4	4.4	3.4	3.4	28	29	30	23	10	6.9	4.8	3.9
24	3.5	4.4	3.4	3.6	29	30	29	16	10	7.2	4.8	3.9
25	3.5	4.6	3.4	3.5	39	26	27	15	9.6	7.8	4.4	3.9
26	3.7	4.6	3.2	3.4	35	25	26	15	9.3	7.2	4.6	4.4
27	3.7	4.6	3.2	3.4	33	24	24	15	9.3	6.4	4.6	7.8
28	3.7	4.4	3.2	3.3	32	23	24	16	8.9	7.2	4.6	5.6
29	3.8	4.5	3.2	4.0	27	32	23	15	8.6	7.5	4.4	4.6
30	3.8	5.1	3.4	12	-------	29	21	14	8.3	6.6	5.3	4.4
31	3.5	---	3.2	16	-------	26	-------	14	-------	6.4	5.1	-------
Total	121.6	129.4	115.9	125.8	711	980	986	660	333.6	264.9	168.0	149.7
Mean	3.92	4.31	3.74	4.06	24.5	31.6	32.9	21.3	11.1	8.55	5.42	4.99
Cfsm	0.286	0.315	0.273	0.296	1.79	2.31	2.40	1.55	0.810	0.624	0.396	0.364
In.	0.33	0.35	0.31	0.34	1.93	2.66	2.68	1.79	0.90	0.72	0.46	0.41

Calendar year 1955: Max 134 Min 3.2 Mean 13.7 Cfsm 1.00 In. 13.60
Water year 1955-56: Max 102 Min 3.0 Mean 13.0 Cfsm 0.949 In. 12.88

Peak discharge (base, 100 cfs).--Apr. 15 (7 p.m.) 186 cfs (4.27 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Nov. 3 to Dec. 7, Jan. 8 to Feb. 7; discharge estimated on basis of recorded range in stage, weather records, and records for South Fork Holston River at Riverside and Middle Fork Holston River at Groseclose.

Percy Preston Spring near Wallace, Va.

Location.--Lat 36°38'25", long 82°06'06", 1¼ miles south of Wallace, Washington County, and 3¾ miles northeast of Bristol.
Records available.--August 1928, November 1947 to September 1956 (discharge measurements only), discontinued.
Extremes.--Maximum discharge measured during year, 4.74 cfs May 10; minimum measured, 0.347 cfs Jan. 5.
1928, 1947-56: Maximum discharge measured, 6.21 cfs Feb. 16, 1950; minimum measured, 0.299 cfs Dec. 3, 1953.
Remarks.--Discharge measurements made monthly 100 ft below spring.

Discharge measurements, in cubic feet per second, water year October 1955 to September 1956

Oct. 6..... 0.517	Feb. 8..... 2.66	June 6..... 1.97
Nov. 3..... .429	Mar. 7..... 3.93	July 11..... 1.15
Dec. 7..... .594	Apr. 4..... 3.32	Aug. 3..... .761
Jan. 5..... .347	May 10..... 4.74	Sept. 7..... .622

Watauga River near Sugar Grove, N. C.

Location.--Lat 36°14'18", long 81°49'22", on right bank 300 ft downstream from Cove Creek and 2.3 miles southwest of Sugar Grove, Watauga County.

Drainage area.--90.8 sq mi.

Records available.--May 1940 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,607.84 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--16 years, 153 cfs.

Extremes.--Maximum discharge during year, 3,880 cfs Apr. 16 (gage height, 8.29 ft), from rating curve extended above 2,100 cfs as explained below; minimum, 13 cfs Jan. 8, result of freezeup; minimum gage height, 1.26 ft Sept. 17, 20, 23; minimum daily discharge, 16 cfs Sept. 15-17, 19, 22, 23.

1940-56: Maximum discharge, 50,800 cfs Aug. 13, 1940 (gage height, 29.6 ft, from profile based on floodmarks), from rating curve extended above 2,100 cfs on basis of slope-area determination of peak flow; minimum, 6.5 cfs Jan. 1, 1954 (gage height, 1.13 ft), result of freezeup; minimum daily, 13 cfs Sept. 19, 30, 1954.

Flood in July 1916 reached a stage of 22.1 ft, from floodmarks on barn a quarter of a mile above station as witnessed by local resident (discharge, 28,000 cfs, from rating curve extended above 2,100 cfs as explained above).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Slight diurnal fluctuation at low flow caused by small mills above station.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 17		Feb. 18 to Sept. 30			
1.5	30	1.2	12	3.5	550
1.7	53	1.4	24	4.0	755
2.0	105	1.6	44	4.5	990
2.5	223	1.9	89	5.0	1,260
3.0	378	2.2	154	5.5	1,550
3.5	550	2.5	240	6.2	2,020
4.0	755	3.0	390		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	33	b40	b46	105	157	115	142	80	35	36	35
2	45	32	49	b46	149	152	140	132	70	31	35	29
3	41	32	52	46	298	154	190	219	66	49	36	22
4	38	31	64	45	295	201	144	237	60	49	33	20
5	36	31	73	41	229	159	126	187	57	53	33	19
6	35	31	*58	b43	402	149	206	165	54	52	31	51
7	39	38	52	b43	368	142	255	162	53	66	29	62
8	112	37	50	b37	246	196	193	*140	50	49	28	33
9	64	34	64	b35	191	152	*168	121	50	63	26	26
10	45	39	b55	b45	159	137	154	112	53	54	24	24
11	40	65	b58	b45	261	130	264	108	48	*37	24	22
12	38	54	b63	b42	226	*126	303	100	*45	31	30	21
13	36	45	b68	b40	*188	137	270	97	44	36	24	20
14	37	48	b65	b38	159	170	240	95	42	131	23	18
15	35	*64	b55	b40	145	225	480	100	42	58	22	16
16	35	49	b50	*b48	132	a800	1,970	97	43	93	21	16
17	35	65	b48	45	622	508	633	86	52	253	21	16
18	*35	50	56	48	724	384	441	80	48	95	21	17
19	36	66	58	49	459	324	351	75	42	79	20	*16
20	34	65	b55	46	396	270	291	72	43	110	21	19
21	33	53	b47	40	321	234	246	70	42	108	*30	18
22	32	49	b45	44	264	210	219	69	40	70	31	16
23	32	48	b43	45	216	187	198	79	40	57	25	16
24	31	46	45	59	204	210	176	86	37	56	22	20
25	30	44	49	52	225	178	157	70	33	58	21	30
26	30	56	46	45	240	165	149	66	33	53	20	89
27	30	49	43	46	207	154	140	68	42	44	18	314
28	30	46	40	60	216	144	130	75	32	49	19	130
29	59	40	41	66	173	147	126	72	29	40	27	68
30	44	b40	54	235	------	135	128	68	32	41	22	49
31	35	-------	b47	161	-------	121	--------	66	------	37	20	------
Total	1,268	1,380	1,633	1,721	7,820	6,558	8,603	3,316	1,402	2,037	793	1,252
Mean	40.9	46.0	52.7	55.5	270	212	287	107	46.7	65.7	25.6	41.7
Cfsm	0.450	0.507	0.580	0.611	2.97	2.33	3.16	1.18	0.514	0.724	0.282	0.459
In.	0.52	0.57	0.67	0.70	3.20	2.69	3.52	1.36	0.57	0.83	0.32	0.51

Calendar year 1955: Max 3,370 Min 30 Mean 139 Cfsm 1.53 In. 20.74
Water year 1955-56: Max 1,970 Min 16 Mean 103 Cfsm 1.13 In. 15.46

Peak discharge (base, 2,000 cfs).--Apr. 16 (2:30 a.m.) 3,880 cfs (8.29 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of shape of recorder graph, weather records, and records for North Toe River at Altapass.

b Stage-discharge relation affected by ice.

Watauga River below Wilbur Dam, Tenn.

Location.--Lat 36°20'39", long 82°07'46", 1,800 ft downstream from Wilbur Dam, 0.7 mile downstream from Big Laurel Branch, 2.7 miles downstream from Watauga Dam, and 5 miles east of Elizabethton, Carter County.

Drainage area.--471 sq. mi.

Records available.--May 1903 to December 1908 and January 1948 to September 1956 in reports of Geological Survey. Published as "near Elizabethton" 1903-8. May 1903 to December 1908 (revised records) in Tennessee Division of Geology Bulletin 34.

Gage.--Water-stage recorder. Datum of gage is 1,550.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. May 11, 1903, to Dec. 31, 1908, chain gage at railroad bridge 2 miles downstream at different datum.

Average discharge.--13 years, 683 cfs (unadjusted).

Extremes.--Maximum discharge during year, 3,020 cfs Oct. 8 (gage height, 35.48 ft); minimum, 20 cfs June 15 (gage height, 31.22 ft); minimum daily, 24 cfs June 15.
1903-8, 1948-56: Maximum discharge observed, 21,500 cfs Jan. 22, 1906 (gage height, 13.6 ft, site and datum then in use), from rating curve extended above 2,500 cfs; minimum, 2.3 cfs July 11, 1953; minimum daily, 2.4 cfs Aug. 14, 1949; minimum gage-height at present site, 30.73 ft July 11, 1953.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow completely regulated by Watauga Lake (see p. 226).

Revisions (water years).--WSP 1276: 1906(M). WSP 1386: 1950. See also Records available.

Correction.--The maximum daily discharge for the water year 1950, published is WSP 1386, was erroneously indicated as 1,190 cfs; the correct figure is 1,510 cfs.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per seond)

31.2	19	32.7	340
31.3	26	33.0	475
31.6	58	33.5	s20
31.9	110	34.0	1,280
32.2	180	35.4	2,920

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,510	1,840	1,770	827	44	51	42	48	46	30	536	34
2	1,480	*1,530	1,010	571	848	50	42	*48	46	30	*1,270	35
3	1,460	2,000	695	902	438	48	42	48	46	30	1,210	316
4	*1,660	2,770	53	*732	142	48	*40	48	46	34	240	425
5	1,160	2,010	734	737	43	*46	40	48	*45	33	33	*280
6	2,270	1,600	*51	57	40	45	40	48	44	33	306	322
7	1,460	1,520	48	1,300	*154	44	118	48	43	33	320	334
8	2,730	2,700	48	373	57	44	45	48	43	33	302	35
9	1,400	2,830	100	1,220	730	43	45	47	43	74	198	33
10	1,430	2,800	51	556	263	42	185	47	42	*30	528	990
11	1,460	2,280	154	1,220	54	40	48	46	40	31	34	922
12	1,480	1,410	1,040	1,500	52	40	50	46	40	31	33	978
13	1,520	53	568	534	193	40	50	46	33	31	395	951
14	1,470	1,120	690	61	188	40	48	46	25	32	332	918
15	1,450	1,170	378	58	51	40	50	46	24	37	729	34
16	1,310	1,150	852	57	186	44	52	45	31	109	403	33
17	1,410	1,140	191	56	323	46	52	45	33	33	316	938
18	1,300	1,160	56	113	212	46	52	45	97	33	33	944
19	1,380	1,120	458	46	478	46	51	44	32	248	33	a1,050
20	1,340	48	414	43	90	45	51	44	31	102	311	a950
21	1,350	1,880	414	40	56	45	50	44	36	33	34	a950
22	1,350	1,750	520	37	128	45	50	44	31	33	34	33
23	1,350	1,680	426	36	78	44	50	44	31	285	33	84
24	1,380	1,840	53	36	54	44	48	810	30	252	33	456
25	1,400	1,740	53	36	53	44	48	54	30	34	33	751
26	1,390	1,050	52	35	53	44	47	45	30	34	33	1,000
27	1,390	57	52	34	52	43	48	45	30	34	183	476
28	1,410	496	52	33	52	43	48	45	30	34	329	1,000
29	1,440	1,390	51	33	52	43	48	45	30	35	340	33
30	1,440	1,640	141	84	-------	43	48	45	30	1,220	317	32
31	1,760	-------	746	46	-------	42	-------	46	-------	1,170	272	-------
Total	46,340	45,774	11,921	11,413	5,164	1,368	1,628	2,198	1,138	4,211	9,203	15,337
Mean	1,495	1,526	385	368	178	44.1	54.3	70.9	37.9	297	511	

	Observed			Adjusted†		
Calendar year 1955:	Max 2,830	Min 10	Mean 627	Mean 639	Cfsm 1.36	In. 18.41
Water year 1955-56:	Max 2,830	Min 24	Mean 425	Mean 605	Cfsm 1.28	In. 17.47

* Discharge measurement made on this day.
† Adjusted for change in contents in Watauga Lake.
a No gage-height record; discharge estimated on basis of weather records, releases from Wilbur and Watauga Lakes, and records for watauga River at Elizabethton.

Doe River at Elizabethton, Tenn.

Location.--36°20'40", long 82°12'37", on left bank 1,500 ft upstream from bridge on State Highway 91 at Elizabethton, Carter County, and 1 mile upstream from mouth.

Drainage area.--137 sq mi.

Records available.--June 1907 to June 1908 and September to December 1912 (gage heights only), December 1911 to September 1916 and November 1920 to September 1931 (published as "at Valley Forge"), June 1932 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,524.73 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. June 1907 to June 1908 and September to December 1912, staff gage a quarter of a mile upstream at different datum. December 1911 to September 1916 and November 1920 to September 1931, chain gage 3 miles upstream at altitude 1,610 ft (from topographic map). June to September 1932 staff gage at present site at datum 0.50 ft higher. September 1932 to January 1934 staff gage at present site and datum.

Average discharge.--37 years (1912-16, 1921-31, 1933-56), 213 cfs.

Extremes.--Maximum discharge during year, 5,870 cfs Apr. 16 (gage height, 6.09 ft); minimum, 36 cfs Jan. 15 (gage height, 0.50 ft).
1911-16, 1920-31, 1932-56: Maximum discharge, 7,300 cfs July 30, 1940 (gage height, 6.75 ft), from rating curve extended above 4,000 cfs; minimum, 17 cfs Aug. 31, Sept. 7, 1925 (gage height, 0.60 ft, site and datum then in use).

Remarks.--Records good.

Revisions (water years).--WSP 823: Drainage area. WSP 1336: 1933(M), 1938.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.5	41	2.0	485
.7	71	2.5	740
.9	113	3.0	1,050
1.1	162	3.5	1,490
1.3	219	4.0	2,050
1.5	280	5.0	3,690
1.7	355		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	54	61	102	315	301	240	246	284	136	98	62
2	62	*54	89	106	392	301	281	*255	252	95	*95	93
3	53	54	89	106	*910	308	408	*702	207	83	93	73
4	*49	54	115	*106	898	404	*343	680	*179	93	89	*68
5	48	54	*146	93	660	355	301	462	159	89	89	106
6	46	54	113	91	650	*327	391	367	144	142	87	150
7	48	56	100	93	625	298	431	379	136	149	79	263
8	191	56	93	64	462	347	379	335	127	109	75	120
9	109	56	115	46	367	301	327	287	118	122	69	87
10	73	62	102	69	304	284	290	264	122	*127	66	75
11	61	104	85	83	331	271	383	249	109	91	68	69
12	56	95	62	89	323	258	540	231	102	77	68	66
13	54	83	68	79	287	319	520	219	100	87	64	62
14	56	99	83	71	261	359	440	207	104	235	77	59
15	54	122	89	59	252	505	739	210	102	162	66	56
16	54	95	61	79	243	898	*3,080	231	100	637	57	54
17	58	141	66	66	1,130	812	994	196	106	605	56	51
18	54	104	87	64	1,590	600	680	179	111	343	53	62
19	62	124	141	83	936	472	530	170	135	222	68	59
20	61	144	111	106	822	383	431	162	159	261	73	53
21	58	111	100	81	696	335	363	157	118	294	134	51
22	51	95	89	62	535	308	327	149	104	228	111	50
23	51	91	91	91	426	280	312	177	104	179	79	50
24	50	93	91	100	387	355	277	250	106	157	69	71
25	50	85	102	93	422	351	255	176	93	165	66	93
26	49	118	98	87	454	327	240	162	83	157	62	396
27	49	102	87	75	400	301	228	157	81	127	59	765
28	49	89	81	85	395	280	237	170	79	122	57	355
29	77	84	81	152	331	304	246	184	71	122	62	216
30	77	64	122	569	------	277	237	154	94	120	62	159
31	59	-- -	127	510	------	255	------	157	--- ----	102	62	- -
Total	1,948	2,577	2,945	3,560	15,806	11,476	14,450	7,904	3,789	5,638	2,313	3,894
Mean	62.8	85.9	95.0	115	545	370	482	255	126	182	74.6	130
Cfsm	0.458	0.627	0.693	0.839	3.98	2.70	3.52	1.86	0.920	1.33	0.545	0.949
In.	0.53	0.70	0.80	0.97	4.29	3.12	3.92	2.15	1.03	1.53	0.63	1.06

Calendar year 1955: Max 1,850 Min 39 Mean 202 Cfsm 1.47 In. 20.04
Water year 1955-56: Max 3,080 Min 46 Mean 208 Cfsm 1.52 In. 20.73

Peak discharge (base, 1,700 cfs).--Feb. 17 (6:30 p.m.) 2,760 cfs (4.50 ft); Apr. 16 (2:30 a.m.) 5,870 cfs (6.09 ft).
* Discharge measurement made on this day.

Watauga River at Elizabethton, Tenn.

Location.--Lat 36°21'21", long 82°13'26", on left bank 25 ft upstream from bridge on U. S. Highway 19E at Elizabethton, Carter County, 0.6 mile dosnstream from Doe River, and at mile 25.9.

Drainage area.--692 sq mi.

Records available.--February 1926 to July 1949, July 1953 to September 1956. Gage-height records collected in this vicinity December 1909 to July 1949 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 1,486.23 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Dec. 1, 1909, to Feb. 20, 1926, U. S. Weather Bureau tape gage and Feb. 21 to Oct. 4, 1926, staff gage, on Southern Railway bridge 10 ft upstream at same datum.

Average discharge.--25 years (1926-48, 1953-56), 1,045 cfs (unadjusted).

Extremes.--Maximum discharge during year, 9,390 cfs Apr. 16 (gage height, 9.14 ft); minimum, 106 cfs Sept. 23 (gage height, 1.89 ft); minimum daily, 112 cfs Sept. 16.
1926-49, 1953-56: Maximum discharge, 75,100 cfs Aug. 14, 1940 (gage height, 20.87 ft), from rating curve extended above 29,000 cfs on basis of contracted-opening determination of peak flow; minimum, 42 cfs Sept. 20, 1932; minimum daily, 85 cfs Dec. 3, 1953; minimum gage height, 1.54 ft Sept. 20, 1932.
Maximum stage known, about 21 ft in May 1901 (discharge, 75,900 cfs), from high-water profile by Tennessee Valley Authority.

Remarks.--Records excellent. Flow partly regulated by Watauga Lake, 10 miles upstream (see p. 226).

Revisions (water years).--WSP 758: 1932(M). WSP 823: Drainage area. WSP 1336: 1927-28(M), 1930, 1931-32(m).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.9	108	4.0	1,260
2.1	150	4.5	1,720
2.3	203	5.0	2,220
2.6	310	6.0	3,310
3.0	520	7.0	4,700
3.5	835	8.0	6,600

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,730	2,050	1,930	967	568	544	422	395	444	192	601	126
2	1,640	*1,700	1,190	742	1,400	526	466	*412	390	148	*1,460	146
3	1,590	2,030	671	1,030	1,900	532	640	1,230	324	141	1,470	408
4	*1,660	2,880	382	*842	1,720	793	*562	1,320	286	146	522	426
5	1,190	2,200	914	853	1,160	670	490	858	*248	150	168	*498
6	2,360	1,690	*241	199	1,150	*586	665	676	231	186	436	481
7	2,120	1,630	206	1,230	*1,380	520	932	658	218	212	427	638
8	2,990	2,760	195	877	888	604	713	574	209	168	386	178
9	1,590	2,960	278	1,280	1,250	538	592	490	200	*232	289	143
10	1,530	2,940	206	645	686	496	649	449	197	199	640	986
11	1,630	2,410	252	1,440	574	460	646	416	189	158	146	1,100
12	1,610	1,730	1,110	1,640	538	422	821	390	175	141	139	1,090
13	1,660	294	699	683	606	502	786	360	172	148	476	1,090
14	1,620	1,140	878	168	551	616	694	355	172	488	433	1,060
15	1,590	1,270	492	150	405	934	1,490	350	168	363	760	191
16	1,390	1,310	924	168	481	1,720	5,540	370	165	1,400	499	112
17	1,560	1,360	346	150	2,270	1,660	2,110	319	172	1,400	410	996
18	1,420	1,410	183	191	3,100	1,140	1,360	298	240	732	124	1,060
19	1,540	1,450	614	162	2,240	842	1,010	278	197	640	148	1,210
20	1,490	370	539	183	1,650	688	807	270	225	445	418	1,040
21	1,490	1,870	514	162	1,340	598	676	256	183	526	206	1,050
22	1,490	1,970	595	141	1,030	538	604	248	172	370	175	197
23	1,500	1,780	554	168	746	490	562	303	170	547	146	143
24	1,510	1,990	202	175	640	580	502	1,100	175	474	132	504
25	1,540	1,850	189	168	787	562	449	383	158	302	128	805
26	1,540	1,320	183	160	1,030	520	422	263	146	310	124	1,460
27	1,540	257	172	146	779	490	395	252	141	263	242	1,590
28	1,540	595	165	155	746	449	395	274	141	238	398	1,420
29	1,600	1,410	162	218	616	538	416	286	135	228	397	464
30	1,600	1,800	262	991	-------	514	380	245	143	1,370	374	231
31	1,880	-------	893	958	-------	472	-------	248	-------	1,420	341	-------
Total	51,140	50,426	16,141	16,822	32,231	20,544	26,196	14,326	6,186	13,737	12,615	20,843
Mean	1,650	1,681	521	543	1,111	663	873	462	206	443	407	695

	Observed						Adjusted†					
Calendar year 1955:	Max	3,820	Min	122	Mean	969	Mean	981	Cfsm	1.42	In.	19.24
Water year 1955-56:	Max	5,540	Min	112	Mean	768	Mean	948	Cfsm	1.37	In.	18.64

* Discharge measurement made on this day.
† Adjusted for changein contents in Watauga Lake.

South Fork Holston River at Kingsport, Tenn.

Location.--Lat 36°31'51", long 82°33'29", on left bank 1,000 ft downstream from new bridge on State Highway 81, 1¼ miles upstream from Reedy Creek, and 3¾ miles upstream from confluence with North Fork Holston River.

Drainage area.--1,935 sq mi.

Records available.--September 1925 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,175.84 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Dec. 2, 1953, at site 2 miles upstream at datum 8.47 ft higher.

Average discharge.--31 years, 2,481 cfs (unadjusted).

Extremes.--Maximum discharge during year, 16,800 cfs Apr. 16 (gage height, 6.89 ft); minimum, 306 cfs Dec. 19, Apr. 8 (gage height, 0.48 ft); minimum daily, 424 cfs July 1.
1925-56: Maximum discharge, 68,800 cfs Aug. 14, 1940 (gage height, 18.80 ft, site and datum then in use); minimum, 210 cfs Jan. 28, 1940 (gage height, -0.20 ft, site and datum then in use); minimum daily, 301 cfs June 13, 1954.

Remarks.--Records good. Flow regulated by South Holston, Watauga, Boone, and Fort Patrick Henry Lakes (see p. 226). Some diversion upstream by the city of Kingsport, Tennessee Eastman Corporation, and Holston Ordnance Works.

Revisions (water years).--WSP 823: Drainage area. WSP 1033: 1930(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.6	400	3.0	4,080
1.0	800	4.0	6,440
1.5	1,400	6.0	12,700
2.0	2,180		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,700	2,040	3,580	566	483	2,250	449	1,080	526	424	*3,480	482
2	3,660	2,040	3,530	1,640	2,720	2,050	470	1,220	496	1,290	2,810	532
3	3,660	*2,710	2,630	4,520	3,230	536	520	3,110	498	1,330	3,260	2,690
4	3,690	3,660	568	3,020	541	521	460	*2,310	1,420	460	1,920	3,130
5	*3,380	2,120	2,280	*3,820	492	495	*460	2,450	1,420	474	450	3,830
6	7,030	2,010	*1,620	836	794	494	1,180	1,450	*1,440	472	1,620	*3,170
7	3,900	2,800	1,980	4,420	1,070	*1,690	1,760	1,350	1,420	456	1,610	3,200
8	6,880	3,570	1,750	1,580	610	3,610	1,930	1,370	1,410	462	1,650	744
9	2,070	4,160	2,260	5,290	1,800	1,710	1,610	1,190	440	1,020	1,570	486
10	3,360	3,700	1,690	2,780	1,670	514	1,280	1,220	449	1,040	1,540	3,630
11	3,800	3,410	1,320	4,040	490	474	2,500	1,220	1,170	*1,000	448	3,940
12	3,740	2,010	2,780	4,470	474	1,250	2,470	1,230	938	1,030	465	4,190
13	3,740	560	1,900	2,410	460	1,340	2,410	1,260	1,103	1,030	2,000	3,950
14	3,740	2,860	2,120	1,010	466	1,810	1,570	856	1,110	498	2,030	3,920
15	3,530	3,010	3,490	520	572	1,660	910	2,820	1,090	466	2,060	534
16	2,060	2,980	*5,700	480	946	3,960	11,600	1,510	482	1,080	2,120	451
17	2,630	3,070	789	1,380	1,320	2,270	8,970	830	463	1,750	2,020	3,610
18	4,750	3,300	454	1,270	3,680	1,340	6,090	688	1,400	3,700	462	3,670
19	4,580	2,840	5,090	528	542	4,930	3,080	519	1,400	*3,680	458	3,670
20	4,700	624	3,080	463	2,060	4,770	2,680	486	1,220	2,920	2,120	3,670
21	3,580	2,430	2,100	476	2,450	2,240	1,550	1,860	1,060	1,120	944	3,500
22	2,190	3,560	*1,990	462	3,480	484	1,270	1,810	1,200	431	861	786
23	678	3,080	2,010	462	2,910	458	1,380	2,280	493	2,580	853	480
24	1,040	2,470	477	480	1,470	460	1,320	1,900	466	2,610	2,000	3,090
25	2,040	3,320	452	454	536	460	1,340	1,750	1,200	1,110	788	4,050
26	2,030	1,980	460	466	929	460	1,340	3,660	1,280	458	450	3,720
27	2,040	584	1,460	472	2,330	448	1,360	720	2,680	1,790	2,040	5,750
28	2,040	2,570	1,460	458	2,660	488	1,310	1,410	615	478	2,060	4,870
29	2,040	3,330	633	482	2,510	507	1,340	1,480	2,830	484	2,040	680
30	2,040	3,330	465	969	-------	464	1,050	1,490	435	3,630	2,030	456
31	2,060	-------	3,080	534	-------	480	-------	1,460	-------	4,260	2,040	-------
Total	100,378	80,128	63,198	50,758	43,695	44,630	65,659	47,989	32,181	43,513	50,199	80,681
Mean	3,238	2,671	2,039	1,637	1,507	1,440	2,189	1,548	1,073	1,404	1,619	2,689

	Observed			Adjusted†		
Calendar year 1955:	Max 10,600	Min 346	Mean 2,365	Mean 2,429	Cfsm 1.26	In. 17.04
Water year 1955-56:	Max 11,600	Min 424	Mean 1,921	Mean 2,316	Cfsm 1.20	In. 16.29

* Discharge measurement made on this day.
† Adjusted for change in contents in South Holston, Watauga, Boone, and Fort Patrick Henry Lakes.

North Fork Holston River near Saltville, Va.

Location.--Lat 36°53'48", long 81°44'47", on right bank 0.5 mile upstream from Cedar Branch bridge, 1.5 miles northeast of Saltville, Smyth County, and 7.8 miles downstream from Laurel Creek.

Drainage area.--222 sq mi.

Records available.--June 1907 to November 1908, November 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,703.53 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. June 11, 1907, to Nov. 12, 1908, chain gage on highway bridge 2.1 miles downstream at different datum. Nov. 2, 1920, to May 23, 1934, chain gage on highway bridge 0.5 mile downstream at datum 7.74 ft lower.

Average discharge.--35 years (1921-56), 285 cfs.

Extremes.--Maximum discharge during year, 9,560 cfs Apr. 16 (gage height, 9.05 ft, from high-water mark in gage well); minimum, 23 cfs Jan. 8 (gage height, 0.49 ft), result of freezeup.

1907-8, 1920-56: Maximum discharge recorded, 13,100 cfs Feb. 18, 1944 (gage height, 10.75 ft), from rating curve extended above 6,500 cfs by logarithmic plotting; minimum, 1 cfs Oct. 15, 16, 1947 (gage height, 0.13 ft), flow retarded by mine cave-in; minimum daily, 2 cfs Oct. 15, 1947.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Prior to September 1947, small diurnal fluctuation at low flow caused by mills above station. Records of chemical analyses for the water year 1956 are given in WSP 1450.

Revisions (water years).--WSP 758: Drainage area. WSP 1113: 1944-47.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 22 to July 6)

Oct. 1 to Feb. 20				Feb. 21 to Sept. 30			
0.5	24	1.4	210	1.0	96	5.0	3,340
.6	32	2.0	457	1.5	260	7.0	6,160
.7	43	2.5	760	2.0	500	8.0	7,860
.8	56	3.0	1,180	3.0	1,200		
1.0	96	4.0	2,170				

Note.--*Same as preceding table below 1.0 ft.*

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	29	b24	b40	360	357	390	246	238	81	114	42
2	29	29	b25	b38	272	322	334	a370	300	*67	92	41
3	28	28	38	b44	624	313	a330	a1,400	256	61	81	40
4	27	27	48	47	1,220	584	a320	a1,550	210	69	72	39
5	26	27	83	39	1,070	591	a300	a1,000	167	78	67	40
6	26	27	96	b39	920	470	858	578	141	227	63	46
7	26	28	72	b38	1,740	381	1,240	452	122	228	56	56
8	31	29	61	34	856	679	875	376	112	141	53	56
9	34	29	60	b34	497	826	644	304	101	147	52	48
10	31	31	60	b35	360	610	552	264	94	144	47	42
11	27	38	50	b37	316	458	a560	a245	92	128	44	40
12	26	38	b46	b39	332	381	a660	a220	83	99	44	39
13	24	39	b41	39	304	624	a700	a200	78	85	42	38
14	26	36	b39	b39	264	1,580	a600	188	76	167	41	36
15	26	35	b42	b40	248	1,640	a1,300	264	76	210	41	35
16	27	36	b39	41	229	1,240	a6,200	686	83	195	40	35
17	26	42	b35	42	524	1,420	a2,500	532	89	440	38	35
18	26	47	b35	b42	1,740	1,050	a1,450	390	112	405	40	34
19	28	50	47	42	1,400	980	a1,000	309	199	242	42	34
20	27	52	47	42	1,950	735	a710	a295	170	178	78	33
21	28	51	48	42	1,480	591	a560	a240	167	138	106	32
22	28	43	b48	b42	833	513	a470	a205	280	117	114	a30
23	26	39	b45	44	546	446	a400	a180	246	99	72	a29
24	26	36	48	42	435	440	a330	164	199	89	55	a31
25	25	34	48	41	945	425	a270	144	150	112	50	a33
26	25	33	51	b41	1,370	400	a250	131	117	164	44	a63
27	25	31	50	b39	875	366	*a230	125	94	141	43	*a125
28	*25	30	*44	b40	*644	*322	210	*153	85	122	41	371
29	28	b27	47	61	446	440	192	206	74	122	*41	153
30	29	*b25	47	*534	------	578	184	160	70	*170	51	94
31	29	---	42	784	------	488	------	167	------	156	44	------
Total	845	1,046	1,506	2,501	22,780	20,250	24,619	11,744	4,281	4,822	1,808	1,770
Mean	27.3	34.9	48.6	80.7	786	653	821	379	143	156	58.3	59.0
Cfsm	0.123	0.157	0.219	0.364	3.54	2.94	3.70	1.71	0.644	0.703	0.263	0.266
In.	0.14	0.18	0.25	0.42	3.82	3.39	4.13	1.97	0.72	0.81	0.30	0.30

Calendar year 1955: Max 5,500 Min 24 Mean 306 Cfsm 1.38 In. 18.73
Water year 1955-56: Max 6,200 Min 24 Mean 268 Cfsm 1.21 In. 16.43

Peak discharge (base, 3,000 cfs).--Apr. 16 (time unknown) 9,560 cfs (9.05 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 stations at Holston and near Gate City.

b Stage-discharge relation affected by ice.

North Fork Holston River at Holston, Va.

Location.--Lat 36°46'29", long 82°04'22", on left bank at downstream side of bridge on U. S. Highway 19, 100 ft downstream from Greendale Creek, 0.4 mile upstream from Garrett Creek, 0.5 mile east of Holston, Washington County, and 0.6 mile upstream from Little Moccasin Creek.

Drainage area.--402 sq mi.

Records available.--June 1951 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,437.10 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--5 years, 466 cfs.

Extremes.--Maximum discharge during year, 12,800 cfs Apr. 16 (gage height, 12.93 ft); minimum, 41 cfs Dec. 1; minimum gage height, 2.05 ft Oct. 16, Dec. 1.
1951-56: Maximum discharge, that of Apr. 16, 1956; minimum, 41 cfs Sept. 8, 1954, Dec. 1, 1955; minimum gage height, 1.98 ft Oct. 8, 9, 1953.

Remarks.--Records good. Records of chemical analyses and water temperatures for the water year 1956 are given in WSP 1450.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 4		Dec. 5 to Sept. 30			
1.9	34	2.0	40	4.0	1,050
2.0	45	2.1	55	6.0	2,640
2.1	65	2.2	80	8.0	4,800
2.2	95	2.5	185	12.0	11,000
2.5	214	3.0	400		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	*45	44	80	840	686	826	410	462	126	*217	90
2	65	47	49	75	644	644	*658	607	630	126	185	94
3	*63	49	57	*90	1,560	728	644	2,400	528	122	164	87
4	59	47	86	94	2,240	1,320	612	2,720	*410	115	150	*70
5	57	45	*197	80	2,080	*1,200	558	1,600	332	112	143	75
6	57	44	189	78	1,840	980	812	1,080	278	249	136	122
7	59	45	154	75	2,900	826	2,160	840	245	373	126	178
8	95	45	126	72	1,760	1,320	1,720	*658	217	274	112	129
9	83	49	122	62	*1,240	1,640	1,240	522	193	*249	112	104
10	68	55	122	62	714	1,240	980	445	178	257	104	75
11	63	74	98	68	618	980	945	400	164	225	90	70
12	59	77	80	72	658	791	1,160	355	150	185	90	65
13	53	77	75	72	588	1,440	1,200	328	140	160	90	62
14	53	83	68	68	504	2,730	1,020	314	136	355	80	60
15	51	71	75	62	474	2,990	2,880	410	132	350	80	55
16	49	68	75	62	435	2,320	10,800	1,020	143	314	75	52
17	57	92	62	68	1,040	2,480	4,080	945	157	360	75	58
18	55	92	62	62	3,180	1,960	2,320	672	160	612	72	65
19	57	109	90	65	2,640	1,760	1,680	510	205	355	80	60
20	61	126	98	87	2,990	1,360	1,200	486	253	257	122	55
21	59	109	94	84	2,560	1,080	945	391	233	217	209	54
22	53	98	87	75	1,560	945	770	332	292	178	237	52
23	55	83	80	72	1,050	840	651	292	342	160	178	50
24	51	77	87	87	819	819	558	265	274	146	140	52
25	49	68	108	84	1,680	791	468	241	225	150	115	55
26	45	68	104	84	2,560	735	415	213	185	205	108	60
27	44	63	98	78	1,640	679	382	209	160	205	87	328
28	44	61	94	70	1,240	618	346	274	143	209	90	637
29	47	55	84	155	875	1,160	324	498	136	260	87	296
30	47	49	94	1,600	------	1,360	306	378	126	283	90	182
31	45	--	--	94	1,800	------	1,080	------	306	------	283	108	----
Total	1,771	2,071	2,953	5,643	42,929	39,502	42,660	20,121	7,229	7,472	3,752	3,392
Mean	57.1	69.0	95.3	182	1,480	1,274	1,422	649	241	241	121	113
Cfsm	0.142	0.172	0.237	0.453	3.68	3.17	3.54	1.61	0.600	0.600	0.301	0.281
In.	0.16	0.19	0.27	0.52	3.97	3.66	3.95	1.86	0.67	0.69	0.35	0.31

Calendar year 1955: Max 7,300 Min 41 Mean 548 Cfsm 1.36 In. 18.48
Water year 1955-56: Max 10,800 Min 44 Mean 490 Cfsm 1.22 In. 16.60

Peak discharge (base, 4,000 cfs).--Apr. 16 (8:30 a.m.) 12,800 cfs (12.93 ft).
* Discharge measurement made on this day.

Big Moccasin Creek near Gate City, Va.

Location.--Lat 36°38'47", long 82°33'12", on left bank at downstream side of bridge on State Highway 71, 0.2 mile downstream from Franklin Branch, 0.9 mile upstream from Pike Branch, 1.6 miles upstream from Little Moccasin Creek, and 1.6 miles east of Gate City, Scott County.

Drainage area.--79.6 sq mi.

Records available.--October 1952 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,267.64 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--1954-55: Maximum discharge during water year, 2,220 cfs Mar. 16 (gage height, 6.72 ft); minimum, 4.5 cfs Oct. 27; minimum gage height, 1.06 ft Sept. 13.
1955-56: Maximum discharge during water year, 3,110 cfs Apr. 16 (gage height, 7.95 ft); minimum, 3.2 cfs Jan. 18 (gage height, 1.04 ft), result of freezeup.
1952-56: Maximum discharge, that of Apr. 16, 1956; minimum, 3.0 cfs Sept. 11, 1954.

Remarks.--Records good.

Rating tables, Oct. 1, 1954, to Sept. 30, 1956 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 28, to May 14, 1955, Mar. 30 to Apr. 14, 1956)

Oct. 1, 1954, to Feb. 6, 1955				Feb. 7, 1955, to Sept. 30, 1956			
1.1	7.0	2.5	213	1.1	5.0	2.5	210
1.2	15	3.0	375	1.2	11	3.0	335
1.5	44	4.0	790	1.4	29	4.0	670
2.0	113			1.7	67	6.0	1,760
				2.0	109	8.0	3,110

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	15	20	54	120	49	695	118	67	37	14	19	9.8
2	20	24	39	92	132	*670	108	63	37	15	15	11
3	49	23	32	73	305	350	98	59	34	12	15	12
4	33	22	26	62	*164	255	85	54	33	13	*15	11
5	21	25	28	57	113	210	84	52	32	16	15	14
6	18	20	91	54	590	542	95	48	31	25	17	14
7	*15	18	113	50	1,300	1,130	*105	45	38	18	16	10
8	13	20	61	47	455	425	96	41	43	15	19	*9.8
9	12	*19	56	43	255	275	74	40	*26	15	16	10
10	10	16	90	43	171	200	71	39	27	17	15	15
11	9.5	13	80	128	150	160	87	*38	25	19	20	10
12	9.5	12	57	150	142	160	102	38	25	44	17	7.4
13	8.7	12	74	*107	109	144	92	56	25	*84	17	7.4
14	8.7	11	172	90	108	126	148	73	25	40	14	8.0
15	9.5	10	*104	77	96	154	162	153	23	30	16	7.4
16	10	10	78	67	106	1,060	119	82	20	23	18	7.4
17	29	11	62	62	280	1,390	95	66	19	18	23	8.0
18	23	9.5	66	54	248	1,210	94	61	17	19	20	8.0
19	18	9.5	112	58	179	1,320	88	59	17	15	17	8.6
20	14	12	91	53	140	670	87	54	17	12	14	9.8
21	13	13	71	47	114	440	84	53	17	13	15	8.0
22	12	14	60	56	112	1,580	85	54	17	22	18	8.0
23	12	18	50	61	629	945	80	37	18	10	17	7.4
24	11	18	45	61	440	425	94	49	23	89	14	14
25	10	17	40	58	258	310	91	53	20	66	13	17
26	9.5	17	37	48	182	570	92	50	23	29	13	16
27	13	20	34	52	356	425	94	44	19	26	13	17
28	13	26	33	57	610	270	89	43	17	23	12	17
29	14	99	131	53	-	205	81	43	16	20	11	16
30	15	106	450	52	-------	160	73	36	15	18	7.4	18
31	15	-------	208	54	-------	133	-------	36	-------	18	8.0	-------
Total	483.4	666.0	2,845	2,086	7,793	16,609	2,871	1,686	736	798	479.4	337.0
Mean	15.6	22.2	85.3	67.3	278	536	95.7	54.4	24.5	25.7	15.5	11.2
Cfsm	0.196	0.279	1.07	0.845	3.49	6.73	1.20	0.683	0.308	0.323	0.195	0.141
In.	0.23	0.31	1.23	0.97	3.63	7.76	1.34	0.79	0.34	0.37	0.22	0.16

Calendar year 1954: Max 1,200 Min 4.0 Mean 68.2 Cfsm 0.857 In. 11.64
Water year 1954-55: Max 1,580 Min 7.4 Mean 102 Cfsm 1.28 In. 17.35

Peak discharge (base, 1,200 cfs).--Feb. 7 (4:30 a.m.) 1,820 cfs (6.07 ft); Mar. 7 (5:30 a.m.) 1,760 cfs (5.96 ft); Mar. 16 (12 p.m.) 2,220 cfs (6.72 ft); Mar. 19 (2 a.m.) 1,890 cfs (6.24 ft); Mar. 22 (8 p.m.) 1,960 cfs (6.31 ft).
* Discharge measurement made on this day.

Big Moccasin Creek near Gate City, Va.--Continued

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	14	12	11	160	139	164	74	53	26	48	33
2	17	7.4	15	11	202	177	144	81	71	30	45	34
3	18	*12	16	11	532	245	139	259	57	24	*61	36
4	17	13	58	12	410	425	*179	425	48	24	70	27
5	*13	17	95	*9.8	320	315	184	220	44	23	49	25
6	12	17	71	11	441	238	212	154	*38	23	39	*39
7	13	15	*43	9.8	*590	*191	395	130	37	24	34	147
8	26	13	33	8.0	302	268	282	111	34	31	31	88
9	24	17	34	6.2	186	356	212	95	37	31	30	56
10	24	21	36	11	137	245	171	*87	36	30	25	40
11	15	25	31	9.2	144	191	196	81	29	*29	22	33
12	13	23	21	9.8	166	171	265	77	29	26	24	27
13	12	24	20	9.8	131	366	215	71	29	23	25	26
14	10	26	18	6.2	112	662	184	70	27	74	24	23
15	9.8	27	23	7.4	102	710	680	70	24	114	24	21
16	9.8	27	13	12	98	*455	*2,550	81	28	63	22	20
17	9.8	30	13	7.4	330	440	888	77	42	45	21	19
18	10	28	20	6.8	945	315	425	61	33	60	19	16
19	9.8	38	22	15	630	270	285	56	57	40	26	19
20	9.8	43	22	27	630	212	210	50	40	32	45	19
21	9.2	38	17	53	455	173	164	49	34	28	75	17
22	9.2	32	17	40	278	148	139	46	56	27	74	16
23	9.2	23	17	32	191	128	124	44	66	88	54	17
24	9.2	21	15	34	173	119	112	43	60	94	36	17
25	9.2	18	16	34	338	109	99	43	43	101	28	17
26	9.2	19	16	32	530	98	91	38	34	53	24	19
27	9.2	18	16	23	295	92	87	39	31	59	21	28
28	9.2	21	15	24	235	88	80	48	38	54	22	89
29	10	15	14	94	173	225	75	56	30	45	18	60
30	11	13	13	*532	-------	325	71	52	28	34	20	40
31	13	-------	13	395	-------	210	-------	41	-------	70	24	------
Total	397.6	653.4	785	1,504.4	9,236	8,106	9,022	2,829	1,213	1,425	1,080	1,068
Mean	12.8	21.8	25.3	48.5	318	261	301	91.3	40.4	46.0	34.8	35.6
Cfsm	0.161	0.274	0.318	0.609	3.99	3.28	3.78	1.15	0.508	0.578	0.437	0.447
In.	0.19	0.31	0.37	0.70	4.30	3.78	4.22	1.33	0.57	0.67	0.50	0.50

Calendar year 1955: Max 1,580 Min 7.4 Mean 96.5 Cfsm 1.21 In. 16.45
Water year 1955-56: Max 2,550 Min 6.2 Mean 102 Cfsm 1.28 In. 17.44

Peak discharge (base, 1,200 cfs).--Apr. 16 (10:30 a.m.) 3,110 cfs (7.95 ft).
* Discharge measurement made on this day.

North Fork Holston River near Gate City, Va.

Location.--Lat 36°36'31", long 82°34'05", on left bank 100 ft upstream from bridge on U. S. Highway 23, 1.6 miles downstream from Big Moccasin Creek, and 2.1 miles southeast of Gate City, Scott County.

Drainage area.--672 sq mi.

Records available.--November 1931 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,197.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--24 years (1932-56), 825 cfs.

Extremes.--Maximum discharge during year, 22,000 cfs Apr. 16 (gage height, 14.10 ft); minimum, 55 cfs Jan. 18 (gage height, 1.23 ft), result of freezeup.
1931-56: Maximum discharge, 23,700 cfs Aug. 14, 1940 (gage height, 14.75 ft); minimum, 37 cfs Dec. 24, 1943, result of freezeup; minimum gage height, 1.00 ft Jan. 6, 1940.

Remarks.--Records good. Diurnal fluctuation at low flow caused by small dam above station.

Revisions (water years).--WSP 783: 1932(M). WSP 823: Drainage area. WSP 1276: 1932-34.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 8-17, Sept. 1-7, 30)

1.3	55	4.0	1,760
1.6	132	6.0	4,240
2.0	310	10.0	12,300
3.0	910	14.0	21,700

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	80	73	129	1,760	1,210	1,380	622	544	255	492	140
2	106	80	80	126	1,290	1,250	1,130	805	712	210	400	194
3	92	*78	90	116	2,580	1,520	1,050	3,570	805	198	421	136
4	85	80	250	116	3,000	2,700	*1,250	6,060	679	210	385	100
5	78	85	390	*122	3,370	2,240	1,250	3,120	562	194	300	85
6	*71	85	350	113	3,120	1,710	1,340	2,020	*476	198	270	*182
7	73	88	*290	106	4,400	1,380	3,000	1,560	421	270	240	405
8	182	88	240	92	3,370	1,520	3,000	1,210	375	385	210	492
9	174	85	225	88	1,920	2,410	2,140	1,020	345	355	190	340
10	194	98	198	78	1,340	2,020	1,610	*875	325	320	170	250
11	159	116	182	98	1,170	1,520	1,560	764	300	*320	174	198
12	136	122	151	92	1,290	1,290	1,710	686	260	265	170	159
13	122	140	113	98	1,130	2,460	1,760	622	230	225	159	136
14	116	155	103	85	980	4,080	1,560	580	230	574	151	119
15	103	166	116	95	875	6,060	3,920	634	210	679	155	113
16	100	178	90	95	826	4,240	*19,700	764	198	556	129	103
17	92	166	95	90	1,980	4,080	11,900	1,250	215	482	122	100
18	90	159	151	69	5,480	3,240	4,740	1,050	250	604	116	85
19	92	186	132	113	5,670	2,700	3,000	840	305	712	140	95
20	100	202	132	151	4,400	2,240	2,190	679	300	492	230	98
21	100	215	159	194	4,740	1,760	1,660	672	350	390	375	92
22	110	190	140	178	2,760	1,470	1,380	562	385	330	405	85
23	106	170	143	162	1,810	1,290	1,210	498	438	275	416	82
24	100	147	132	178	1,380	1,170	1,050	465	504	270	340	85
25	95	129	126	186	2,080	1,130	910	416	416	265	240	82
26	90	132	140	182	4,400	1,050	812	385	335	270	190	80
27	85	122	151	162	3,000	980	744	360	280	350	166	122
28	82	116	143	151	2,140	910	686	385	245	432	155	519
29	85	95	136	294	1,560	1,560	628	498	220	410	132	840
30	82	80	132	1,750	-------	2,410	592	660	206	420	126	432
31	80	--	129	3,120	-------	1,860	-------	538	-----	538	143	-----
Total	3,296	3,833	4,982	8,629	73,821	65,460	78,862	34,170	11,121	11,454	7,312	5,949
Mean	106	128	161	278	2,546	2,112	2,629	1,102	371	369	236	198
Cfsm	0.158	0.190	0.240	0.414	3.79	3.14	3.91	1.64	0.552	0.549	0.351	0.295
In.	0.18	0.21	0.28	0.48	4.09	3.62	4.36	1.89	0.62	0.63	0.40	0.33

Calendar year 1955: Max 14,900 Min 52 Mean 899 Cfsm 1.34 In. 18.16
Water year 1955-56: Max 19,700 Min 69 Mean 844 Cfsm 1.26 In. 17.09

Peak discharge (base, 6,000 cfs).--Feb. 18 (10:30 p.m.) 7,060 cfs (7.53 ft); Mar. 15 (8:30 a.m.) 6,660 cfs (7.27 ft); Apr. 16 (3:30 p.m.) 22,000 cfs (14.10 ft); May 4 (2:30 a.m.) 6,860 cfs (7.40 ft).

* Discharge measurement made on this day.

Holston River at Surgoinsville, Tenn.

Location.--Lat 36°28'19", long 82°50'50", on right bank 1,500 ft upstream from Surgoinsville Creek and county bridge at Surgoinsville, Hawkins County, 9.8 miles upstream from Big Creek, and at mile 118.4. Records include flow of Surgoinsville Creek.

Drainage area.--2,874 sq mi, includes that of Surgoinsville Creek.

Records available.--April 1941 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,088.46 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--15 years, 3,446 cfs (unadjusted).

Extremes.--Maximum discharge during year, 38,900 cfs Apr. 16 (gage height, 13.32 ft); minimum, 680 cfs Jan. 16 (gage height, 1.45 ft).
1941-56: Maximum discharge, 59,600 cfs Feb. 18, 1944 (gage height, 17.48 ft); minimum, 470 cfs Oct. 21, 1941 (gage height, 1.16 ft).

Remarks.--Records good. Flow partly regulated by South Holston, Watauga, Boone, and Fort Patrick Henry Lakes (see p. 226).

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,840	2,140	3,840	2,780	3,240	4,260	2,420	2,020	1,720	1,120	*3,580	2,280
2	3,750	2,120	3,960	1,210	3,790	4,110	2,160	2,170	1,260	1,120	3,900	1,090
3	3,720	*2,140	3,220	2,940	8,050	3,440	2,300	4,590	1,360	1,860	3,220	1,800
4	3,650	3,510	2,710	4,160	6,000	4,860	2,840	*9,500	1,970	1,780	2,710	3,310
5	*3,280	2,860	2,160	3,800	4,940	4,060	*2,940	7,250	1,850	1,130	1,670	3,370
6	5,780	2,120	2,620	2,200	5,450	3,200	3,350	5,110	*1,780	1,180	1,090	*4,410
7	5,370	2,440	*2,440	1,970	7,770	*3,350	5,840	3,310	1,780	1,280	1,830	3,890
8	5,740	3,280	2,140	4,220	*5,790	5,330	5,920	2,880	1,790	1,190	1,840	2,630
9	4,100	4,110	2,340	3,060	4,160	6,230	5,370	2,500	1,370	1,460	1,770	1,090
10	2,900	3,820	2,520	3,740	3,370	3,650	4,010	2,160	1,060	1,720	1,770	2,500
11	3,870	3,750	2,250	4,190	3,570	2,770	3,770	2,060	1,360	*1,610	1,610	4,160
12	3,800	2,630	1,740	4,400	2,500	2,980	5,450	1,970	1,670	1,610	912	4,210
13	3,770	1,780	3,120	3,120	2,200	4,360	5,010	1,820	1,710	1,580	988	4,010
14	3,750	1,510	2,370	2,210	1,880	6,900	4,640	1,650	1,600	1,670	2,190	3,960
15	3,750	3,200	2,790	980	1,830	9,470	5,610	2,400	1,650	1,600	2,270	2,340
16	2,690	3,220	5,420	700	1,650	9,670	*30,300	3,000	1,340	2,840	2,320	876
17	2,240	3,220	3,510	1,000	4,430	9,140	25,500	2,120	1,120	2,920	2,180	2,260
18	3,530	3,310	936	*1,450	*12,200	6,520	13,900	1,850	1,680	3,460	2,180	*3,720
19	5,370	3,760	2,620	1,180	8,770	7,600	8,910	1,380	2,340	*4,410	900	3,630
20	4,640	2,530	*4,510	785	8,350	9,280	5,870	1,240	1,990	3,460	1,300	3,680
21	3,510	1,360	2,980	774	8,910	4,880	4,880	1,830	1,880	2,860	2,440	3,560
22	2,840	*3,840	*2,200	785	7,930	3,530	3,050	1,970	1,870	1,310	1,420	2,340
23	1,790	3,440	2,160	785	5,760	2,280	3,440	2,500	1,560	1,400	1,360	840
24	864	2,920	1,820	818	5,680	2,080	2,840	2,500	1,380	2,750	*1,460	1,820
25	1,830	3,930	752	829	3,600	1,970	2,580	2,010	1,760	2,220	2,290	3,330
26	2,140	2,960	741	818	6,410	1,880	2,230	3,220	2,030	1,400	1,250	4,260
27	2,140	1,790	908	796	6,950	1,780	2,460	2,550	2,080	1,170	1,030	3,940
28	2,140	1,400	1,870	785	5,920	1,690	2,390	1,540	2,820	1,810	2,340	5,500
29	2,140	4,580	1,600	960	5,190	2,080	2,230	1,990	2,140	1,090	2,350	3,820
30	2,140	4,040	785	2,960	--------	3,510	1,890	2,070	2,460	2,100	2,310	1,130
31	2,140	--------	1,400	4,440	--------	3,020	--------	1,500	--------	4,410	2,340	--------
Total	103,194	87,710	74,032	64,845	156,290	139,860	174,100	84,660	52,380	61,520	60,820	89,756
Mean	3,329	2,924	2,388	2,092	5,389	4.512	5,803	2,731	1,746	1,985	1,962	2,992

	Observed				Adjusted†			
Calendar year 1955:	Max 29,000	Min 741	Mean 3,528		Mean 3,591	Cfsm 1.25	In. 16.96	
Water year 1955-56:	Max 30,300	Min 700	Mean 3,140		Mean 3,535	Cfsm 1.23	In. 16.74	

* Discharge measurement made on this day.
† Adjusted for change in contents in South Holston, Watauga, Boone, and Fort Patrick Henry Lakes.

Mossy Spring near Jefferson City, Tenn.

Location.--Lat 36°07'17", long 83°28'22", in spring pool, 15 ft upstream from water plant intake, 300 ft south of city water plant, tributary to unnamed branch at point 500 ft upstream from confluence of Buffalo Wallows Branch and unnamed branch, 1.1 miles east of Jefferson City Post Office.

Records available.--September 1950 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,092.3 ft above mean sea level (Tennessee Valley Authority construction plans for waterworks).

Average discharge.--6 years, 41.3 cfs.

Extremes.--Maximum discharge during year, 183 cfs Apr. 15 (gage height, 3.12 ft); minimum daily, 9.5 cfs Oct. 26, Nov. 9, 11.
1950-56: Maximum discharge, that of Apr. 15, 1956; minimum daily, 7.4 cfs Jan. 8, 9, 1954.

Remarks.--Records good. Records do not include diversion averaging about three-quarters of a cubic foot per second for the water supply of Jefferson City.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 3		Dec. 4 to Sept. 30	
0.6	8.5	0.6	10
.7	14	.7	16
.8	20	.8	23
1.0	35	1.0	39
1.1	44	1.3	72
		1.6	111
		2.0	166

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	11	12	13	68	101	84	95	62	33	25	20
2	15	10	*11	13	68	98	86	94	60	42	25	22
3	14	11	12	13	114	98	92	95	54	35	26	25
4	13	10	46	*12	120	101	94	94	49	33	23	30
5	*12	11	50	13	114	98	*94	92	*46	31	22	31
6	12	10	37	12	127	95	99	89	44	29	*22	57
7	14	*10	29	13	141	93	107	86	43	29	22	78
8	37	10	26	12	131	93	101	*84	42	29	22	62
9	25	9.5	26	12	121	92	97	84	41	*31	21	54
10	18	10	26	13	114	90	93	82	41	32	21	*48
11	15	9.5	23	12	108	89	102	81	39	29	21	44
12	12	10	21	12	104	86	112	80	38	28	21	41
13	12	10	18	12	97	*86	106	77	37	28	20	39
14	12	10	18	12	93	92	102	76	43	44	26	35
15	12	10	17	12	90	97	122	75	46	43	23	33
16	12	10	16	12	98	111	160	73	42	37	22	31
17	11	14	16	12	123	114	153	72	39	35	20	30
18	11	11	16	11	155	110	145	71	37	33	20	27
19	10	19	17	14	149	104	139	68	36	32	19	27
20	10	17	17	18	148	102	131	67	35	31	20	25
21	10	14	16	16	144	98	125	66	35	31	22	24
22	10	12	16	14	134	95	119	64	33	30	21	23
23	10	20	15	16	127	92	115	62	34	29	20	22
24	10	24	14	22	120	90	112	59	33	29	20	22
25	10	17	14	23	116	88	106	58	33	29	19	21
26	9.5	19	14	25	112	86	104	57	33	28	18	20
27	10	16	14	24	*108	84	102	55	31	27	18	19
28	10	14	13	26	107	82	101	54	30	26	19	18
29	11	13	13	54	103	89	98	52	30	26	20	18
30	11	12	13	84	------	89	95	51	29	26	21	18
31	11	-- -	14	80	------	86	------	50	------	25	20	- -
Total	404.5	384.0	610	637	3,342	2,929	3,296	2,263	1,195	970	659	964
Mean	13.0	12.8	19.7	20.5	115	94.5	110	73.0	39.8	31.3	21.3	32.1
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 142 Min 9.5 Mean 32.7 Cfsm - In. -
Water year 1955-56: Max 160 Min 9.5 Mean 48.2 Cfsm - In. -

* Discharge measurement made on this day.

Holston River near Jefferson City, Tenn.

Location.--Lat 36°10'03", long 83°30'10", on left bank 250 ft upstream from bridge on State Highway 92, 0.2 mile downstream from Cherokee Dam, 2.5 miles upstream from Mill Spring Creek, and 3 miles north of Jefferson City, Jefferson County.

Drainage area.--3,429 sq mi.

Records available.--April 1937 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 900.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to June 30, 1941, at datum 20.02 ft higher.

Average discharge.--19 years, 3,930 cfs (unadjusted).

Extremes.--Maximum discharge during year, 16,900 cfs Mar. 25 (gage height, 29.10 ft); minimum, 30 cfs Jan. 29 (gage height, 20.20 ft); minimum daily, 34 cfs Dec. 29, Jan. 25. 1937-56: Maximum discharge, 58,700 cfs Aug. 15, 1940 (gage height, 41.82 ft, present datum); minimum, 2.2 cfs Dec. 8, 1941, discharge measurement; minimum daily, 2.6 cfs Dec. 25, 1941; minimum gage height recorded, 19.75 ft Dec. 25, 1941.

Remarks.--Records good. Flow regulated by South Holston, Watauga, Boone, Fort Patrick Henry, and Cherokee Lakes (see p. 226,227).

Revisions (water years).--WSP 923: 1939-40(m).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

20.2	30	21.5	830
20.3	50	22.0	1,340
20.4	80	23.0	2,740
20.6	160	24.0	4,500
20.8	270	26.0	8,850
21.0	410	28.0	13,900

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,030	7,260	9,430	4,180	668	56	2,880	2,820	4,870	5,690	8,470	5,090
2	3,740	6,650	7,350	2,440	594	59	6,780	3,000	2,870	3,690	9,780	3,100
3	4,010	6,510	112	5,860	46	62	4,540	216	1,920	3,670	7,390	5,540
4	3,800	6,540	50	*5,540	48	65	1,260	112	4,630	2,240	7,150	7,220
5	*3,690	6,650	50	6,160	44	1,210	84	116	*4,420	3,630	7,830	6,800
6	5,350	6,450	50	6,320	62	59	108	124	4,180	3,740	*6,400	6,400
7	3,850	*6,380	50	116	53	62	120	148	3,090	3,360	7,000	6,120
8	5,150	6,450	50	4,520	50	175	120	*152	3,040	1,680	7,760	326
9	3,220	6,560	713	7,110	50	704	120	152	246	*3,040	7,280	3,290
10	3,920	6,360	3,870	3,000	50	1,150	124	156	3,430	3,550	7,670	*8,220
11	3,380	6,050	2,950	3,160	53	1,160	140	156	4,050	128	5,480	9,090
12	3,380	5,860	9,570	6,400	56	5,480	144	152	3,500	92	3,940	9,040
13	3,410	4,180	*4,080	4,540	368	*5,310	148	156	3,940	*128	6,710	11,000
14	3,440	4,250	4,310	1,330	48	1,010	144	120	4,050	2,450	6,180	9,640
15	3,430	2,220	8,150	821	48	74	160	3,310	4,100	1,910	7,530	13,500
16	3,390	56	8,990	1,110	48	96	160	3,580	2,690	6,030	5,880	7,940
17	4,010	2,800	4,050	2,550	71	96	148	*3,270	2,680	6,470	5,880	7,350
18	5,650	2,680	9,260	2,440	77	100	140	2,850	5,370	3,390	3,760	7,940
19	5,770	2,330	8,170	1,210	71	6,360	128	2,550	5,310	578	4,610	4,730
20	6,470	2,630	5,210	1,110	77	5,480	128	2,380	6,250	821	5,090	6,780
21	6,800	5,110	6,140	1,040	80	3,310	124	3,270	6,710	857	*5,010	8,260
22	6,800	3,900	6,100	1,180	77	2,440	120	5,400	5,170	104	4,830	4,520
23	2,480	3,800	5,330	1,080	74	2,080	136	6,670	4,180	6,180	3,120	4,070
24	3,720	1,420	42	578	74	3,070	2,820	6,670	4,830	6,320	6,210	6,360
25	6,250	1,260	36	34	77	7,580	2,850	6,670	4,790	6,160	6,340	6,290
26	6,340	1,180	5,630	36	71	8,660	2,800	6,650	4,200	5,210	4,580	8,870
27	6,450	1,270	7,640	610	71	3,480	586	5,370	3,020	6,320	4,650	7,920
28	6,450	3,710	46	602	77	3,460	1,280	6,670	2,920	6,070	6,230	6,650
29	6,560	8,590	34	642	1,950	3,430	333	5,070	6,670	7,870	5,270	6,510
30	6,910	10,100	1,830	40	-------	3,430	3,190	4,890	5,900	8,130	5,010	6,450
31	8,150	-------	2,720	152	-------	3,310	-------	4,160	-------	8,200	5,190	-------
Total	150,000	139,206	122,013	75,911	5,133	73,018	31,815	87,010	123,026	117,708	188,230	205,016
Mean	4,839	4,640	3,936	2,449	177	2,355	1,060	2,807	4,101	3,797	6,072	6,834

	Observed			Adjusted†		
Calendar year 1955:	Max 12,800	Min 34	Mean 4,271	Mean 4,183	Cfsm 1.22	In. 16.56
Water year 1955-56:	Max 13,500	Min 34	Mean 3,601	Mean 4,297	Cfsm 1.25	In. 17.06

* Discharge measurement made on this day.
† Adjusted for change in contents in South Holston, Watauga, Boone, Fort Patrick Henry, and Cherokee Lakes.

Mill Spring near Jefferson City, Tenn.

Location.--Lat 36°09'08", long 82°31'35", in spring pool at Tennessee Valley Authority pumping station, 300 ft northwest of State Highway 92, half a mile upstream from mouth, and 3 miles northwest of Jefferson City, Jefferson County.

Records available.--August 1951 to September 1956 in reports of Geological Survey. October 1940 to September 1948 in files of Tennessee Valley Authority.

Gage.--Water-stage recorder and concrete weir. Datum of gage is 962.3 ft above mean sea level (Tennessee Valley Authority construction plans for waterworks).

Average discharge.--5 years, 4.93 cfs.

Extremes.--Maximum discharge during year, 19 cfs Apr. 16 (gage height, 1.40 ft); minimum daily, 2.0 cfs Nov. 21, 22, Jan. 11-23.
1951-56: Maximum discharge, that of Apr. 16, 1956; minimum daily, 1.7 cfs Nov. 18-20, 1955.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Records do not include diversion averaging about one-twentieth of a cubic foot per second for the domestic water supply of Cherokee Dam.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.2	1.3	0.7	7.7
.3	2.4	1.0	12
.5	4.8	1.4	20

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	2.1	2.1	2.1	3.9	10	8.4	10	7.0	4.3	3.4	3.1
2	2.2	2.1	*2.1	2.1	4.4	10	8.4	10	6.8	4.3	3.4	3.1
3	2.2	2.1	2.2	2.1	8.6	10	8.4	10	6.5	4.3	3.5	3.0
4	2.2	2.1	2.8	*2.1	9.2	10	9.4	10	6.4	4.3	3.4	3.0
5	*2.2	2.1	2.7	2.1	8.9	10	*9.4	10	*6.4	4.3	3.4	3.0
6	2.2	2.1	2.5	2.1	10	10	10	9.8	6.2	4.2	*3.4	3.0
7	2.3	*2.1	2.4	2.1	12	9.8	11	9.7	6.1	4.1	3.4	3.0
8	2.4	2.1	2.4	2.1	11	10	10	*9.5	6.1	4.0	3.4	2.8
9	2.3	2.1	2.3	2.1	11	10	10	9.4	5.9	*4.0	3.4	2.8
10	2.2	2.1	2.3	2.1	10	9.7	10	9.2	5.8	4.0	3.4	*2.8
11	2.2	2.1	2.3	2.0	9.8	9.7	10	9.0	5.6	4.0	3.4	2.8
12	2.2	2.1	2.2	2.0	9.4	9.4	11	8.8	5.6	4.0	3.4	2.8
13	2.2	2.1	2.2	2.0	8.9	*9.4	11	8.4	5.5	4.0	3.4	2.8
14	2.2	2.1	2.2	2.0	8.4	9.7	11	8.4	5.5	4.0	3.4	2.8
15	2.1	2.1	2.2	2.0	8.2	9.8	12	8.4	5.4	3.9	3.4	2.8
16	2.1	2.2	2.2	2.0	7.8	11	19	8.2	5.4	3.9	3.4	2.8
17	2.1	2.2	2.2	2.0	11	12	18	8.0	5.2	4.0	3.4	2.8
18	2.1	2.1	2.2	2.0	15	12	17	7.7	5.2	3.9	3.3	2.8
19	2.1	2.1	2.2	2.0	15	12	16	7.6	5.1	3.9	3.3	2.8
20	2.1	2.1	2.2	2.0	15	11	15	7.4	5.1	3.9	3.3	2.7
21	2.1	2.0	2.2	2.0	14	11	14	7.2	4.9	3.9	3.2	2.7
22	2.1	2.0	2.1	2.0	14	11	14	7.2	4.9	3.8	3.2	2.7
23	2.1	2.2	2.1	2.0	14	10	13	7.2	4.9	3.8	3.1	2.7
24	2.1	2.1	2.1	2.1	13	10	12	7.1	4.8	3.8	3.1	2.7
25	2.1	2.1	2.1	2.1	12	10	12	7.0	4.8	3.8	3.1	2.7
26	2.1	2.1	2.1	2.1	12	9.8	12	7.0	4.7	3.8	3.1	2.7
27	2.1	2.1	2.1	2.1	*11	9.5	11	7.0	4.5	3.8	3.1	2.7
28	2.1	2.1	2.1	2.2	11	9.4	11	6.8	4.5	3.7	3.1	2.6
29	2.1	2.1	2.1	3.0	11	9.2	11	6.6	4.4	3.6	3.1	2.6
30	2.1	2.1	2.1	4.4	------	8.9	10	6.6	4.4	3.5	3.1	2.6
31	2.1	--	2.1	4.2	------	8.8	------	6.5	------	3.5	3.1	--
Total	66.9	63.1	69.1	69.2	309.5	313.1	355.0	255.7	163.6	122.3	102.1	84.2
Mean	2.16	2.10	2.23	2.23	10.7	10.1	11.8	8.25	5.45	3.95	3.29	2.81
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 18 Min 1.9 Mean 4.17 Cfsm - In. -
Water year 1955-56: Max 19 Min 2.0 Mean 5.39 Cfsm - In. -

* Discharge measurement made on this day.
Note.--No gage-height record Dec. 27 to Jan. 3, Jan. 5-17, July 7-8, July 28 to Aug. 5; discharge estimated on basis of recorded range in stage and records for Mossy Spring near Jefferson City.

Holston River near Knoxville, Tenn.

Location.--Lat 36°00'56", long 83°49'54", on left bank 300 ft upstream from bridge on U. S. Highway 70, 1.8 miles northeast of Knoxville city limits, Knox County, and 5.5 miles upstream from confluence with French Broad River.

Drainage area.--3,747 sq mi.

Records available.--October 1930 to September 1956. Published as "at Strawberry Plains" 1930-48. Records published for both sites June 1945 to September 1948.

Gage.--Water-stage recorder at present site and datum since June 19, 1945. Datum of gage is 815.84 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Oct. 1, 1930, to June 8, 1931, staff gage and June 9, 1931, to Sept. 30, 1948, water-stage recorder, at site 12 miles upstream at datum 22.55 ft higher.

Average discharge.--26 years, 4,346 cfs (unadjusted).

Extremes.--Maximum discharge during year, 15,600 cfs Sept. 16 (gage height, 7.29 ft); minimum, 242 cfs Dec. 31 (gage height, 1.32 ft).
1930-56: Maximum discharge, 62,900 cfs Mar. 28, 1935 (gage height, 20.20 ft, site and datum then in use); minimum, 44 cfs Dec. 12, 21, 22, 1941 (gage height, -0.58 ft, site and datum then in use); minimum daily, 44 cfs Dec. 21, 22, 1941.

Remarks.--Records good. Flow regulated by South Holston, Watauga, Boone, Fort Patrick Henry, and Cherokee Lakes (see p. 226,227).

Revisions (water years).--WSP 893: 1935(M). WSP 1336: 1939.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,010	6,870	10,100	4,030	942	2,600	3,780	3,160	4,620	5,630	8,130	5,610
2	3,960	6,980	7,120	3,160	1,860	878	4,530	3,560	5,510	5,690	9,580	5,760
3	3,920	6,550	5,790	4,500	4,760	806	7,040	3,680	1,980	3,920	7,720	3,750
4	3,800	6,550	1,770	5,600	2,870	1,160	5,700	1,120	3,330	3,180	7,330	6,690
5	3,970	6,640	*1,420	5,890	1,780	*1,020	2,880	770	5,100	2,560	7,140	7,620
6	4,350	6,730	734	6,380	2,520	1,910	2,200	686	4,650	4,690	7,330	7,070
7	4,900	6,430	460	5,580	2,340	794	2,060	662	3,460	3,850	6,400	6,610
8	5,780	*6,490	376	605	1,470	1,790	1,280	628	3,300	3,180	6,980	5,010
9	3,850	6,610	332	7,920	*1,130	1,450	994	595	2,990	2,080	7,780	1,160
10	3,750	6,670	1,810	4,200	929	1,630	842	584	1,240	*3,050	7,740	5,480
11	3,630	6,280	3,530	3,270	942	1,960	1,380	*582	3,090	3,160	6,880	*9,280
12	3,480	6,100	7,440	6,050	854	2,720	1,500	540	4,240	573	4,950	9,680
13	3,460	4,430	5,740	5,020	758	6,180	1,100	530	3,630	*392	5,260	10,700
14	3,560	4,560	4,300	4,030	994	5,840	929	520	4,160	414	6,560	11,000
15	3,540	3,940	6,520	1,680	674	2,410	2,530	1,050	4,240	2,900	*6,760	11,900
16	3,490	2,480	9,480	1,110	606	2,020	6,430	3,130	4,180	3,950	6,930	11,800
17	3,490	624	6,380	1,380	2,850	1,610	2,680	3,720	2,860	*7,300	5,200	7,460
18	4,920	2,790	6,720	2,850	5,100	1,280	1,750	3,100	3,870	5,000	5,090	7,650
19	5,700	2,970	10,600	2,830	2,680	2,210	1,390	3,310	5,800	3,020	4,820	6,540
20	6,460	3,150	5,080	1,580	2,440	7,170	1,160	2,720	*5,630	1,050	4,870	3,410
21	*6,790	3,630	6,010	1,290	*1,890	5,290	1,030	3,010	7,580	935	4,610	9,240
22	6,850	4,560	5,840	1,350	1,420	4,400	955	4,090	5,730	1,240	5,040	6,690
23	4,940	4,380	5,970	1,490	1,160	2,600	890	7,440	4,560	905	4,240	4,610
24	3,000	3,990	4,260	1,560	1,080	2,450	*1,260	6,940	5,120	6,940	4,890	5,360
25	4,690	1,540	547	994	1,150	6,490	3,170	6,910	5,190	6,190	6,280	6,490
26	6,310	1,450	877	470	1,060	8,430	3,480	6,820	4,590	5,280	5,970	7,620
27	6,280	1,430	6,910	339	916	6,490	2,680	5,970	3,570	6,250	4,350	9,210
28	6,370	1,540	5,580	791	854	3,790	1,250	5,640	3,200	6,010	5,860	7,260
29	6,520	6,390	575	1,710	734	3,950	1,670	6,420	4,940	7,040	6,170	6,730
30	7,010	10,500	290	2,960	-------	4,000	1,430	5,100	6,270	8,030	5,450	6,980
31	6,650	-------	1,860	1,500	-------	3,980	-------	5,040	-------	8,130	5,320	-------
Total	150,410	145,234	134,201	92,119	48,763	99,308	69,970	98,007	128,430	122,539	191,430	216,370
Mean	4,852	4,641	4,329	2,972	1,681	3,203	2,332	3,162	4,281	3,953	6,175	7,212

	Observed						Adjusted†					
Calendar year 1955:	Max	15,700	Min	272	Mean	4,521	Mean	4,433	Cfsm	1.18	In.	16.06
Water year 1955-56:	Max	11,900	Min	290	Mean	4,090	Mean	4,785	Cfsm	1.28	In.	17.38

* Discharge measurement made on this day.
† Adjusted for change in contents in South Holston, Watauga, Boone, Fort Patrick Henry, and Cherokee Lakes.

First Creek at Mineral Springs Avenue, at Knoxville, Tenn.

Location.--Lat 35°00'53", long 83°55'18", on right bank at Mineral Springs Avenue Bridge in Knoxville, Knox County, 0.3 mile downstream from Whites Creek, 4.1 miles upstream from gage at Fifth Avenue in Knoxville, and 5.9 miles upstream from mouth.

Drainage area.--15.7 sq mi, includes 3.8 sq mi without surface drainage.

Records available.--April 1945 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 940.87 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--11 years, 22.7 cfs.

Extremes.--Maximum discharge during year, 643 cfs Apr. 15 (gage height, 6.92 ft); minimum, 2.6 cfs Nov. 2; minimum gage height, 1.57 ft Sept. 22-23.
1945-56: Maximum discharge, 1,280 cfs Feb. 13, 1948 (gage height, 8.62 ft); minimum, 1.8 cfs Sept. 26, 1948; minimum gage height, 1.32 ft Sept. 21, Oct. 1, 1945.

Remarks.--Records good except those for period of no gage-height record, which are fair. Discharge measurements generally made twice a month.

Revisions.--WSP 1276: Drainage area.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 30 to Nov. 16, Jan. 29, 30, July 25 to Aug. 6)

1.5	2.4	4.0	72
1.7	4.2	4.5	89
1.9	6.8	5.0	115
2.2	13	5.5	195
2.5	22	6.0	330
3.0	38		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	2.7	4.9	4.6	39	34	21	22	14	7.0	6.4	4.3
2	4.3	2.7	5.4	4.6	114	39	28	38	11	6.5	6.2	4.8
3	4.1	2.8	5.4	4.6	270	52	24	116	10	6.0	6.0	3.8
4	3.9	2.8	107	4.3	111	59	153	52	10	6.0	5.7	3.6
5	3.7	2.9	40	4.3	74	40	49	37	9.5	5.5	5.4	3.6
6	3.8	2.8	19	4.3	171	38	136	38	9.0	10	5.4	8.3
7	7.4	3.2	15	4.3	84	37	76	38	9.0	11	5.0	4.9
8	7.5	3.2	12	4.1	58	37	47	30	9.0	11	5.2	4.3
9	4.2	3.2	12	4.1	50	50	40	26	9.0	30	4.8	3.9
10	4.0	5.0	9.7	4.2	43	44	36	23	9.0	11	4.7	3.8
11	3.8	3.4	8.4	4.2	55	40	72	22	9.0	7.7	5.4	3.7
12	3.7	3.0	8.1	4.2	45	38	54	21	9.5	7.0	5.4	3.7
13	4.0	3.0	7.7	4.1	42	40	41	20	9.5	24	4.8	3.5
14	3.9	4.3	7.2	4.0	37	82	37	19	12	21	4.6	3.4
15	3.8	4.2	7.0	4.0	35	68	217	19	9.5	24	4.7	3.5
16	3.7	5.4	6.5	4.0	35	111	289	19	9.0	25	4.4	3.5
17	3.7	5.7	6.0	3.9	169	65	87	17	8.5	27	4.4	3.6
18	3.6	4.6	12	3.9	214	54	71	16	8.5	14	5.4	3.7
19	3.6	14	9.3	5.4	78	46	59	15	9.0	11	4.7	3.4
20	3.5	7.2	7.9	5.0	95	41	49	15	14	12	4.8	3.4
21	3.5	6.0	7.2	4.8	66	38	42	14	9.5	10	9.9	3.3
22	3.4	5.5	6.8	4.6	55	35	39	14	10	9.3	5.4	3.3
23	3.3	36	6.5	6.5	47	33	36	14	9.0	8.6	4.7	7.6
24	3.2	16	6.2	9.7	51	32	33	14	8.5	8.6	4.2	5.8
25	3.2	9.0	6.0	9.5	57	28	31	13	8.0	14	4.0	3.5
26	3.2	8.1	5.7	9.7	47	27	30	13	7.5	11	3.8	3.3
27	3.2	6.4	5.0	9.3	44	25	28	13	7.5	7.9	3.8	3.2
28	3.1	5.8	4.9	13	42	24	25	12	7.0	7.3	8.1	3.2
29	3.6	5.4	4.8	105	37	30	22	11	7.0	7.3	4.9	3.1
30	2.9	5.0	5.2	126	-----	24	24	11	6.5	7.2	4.6	3.0
31	2.8		4.8	66	-----	22	-----	11	-----	6.5	4.2	-----
Total	121.1	189.3	373.6	450.2	2,265	1,393	1,896	743	278.5	374.4	161.0	120.0
Mean	3.91	6.31	12.1	14.5	78.1	44.9	63.2	24.0	9.28	12.1	5.19	4.00
Cfsm	0.249	0.402	0.771	0.924	4.97	2.86	4.03	1.53	0.591	0.771	0.331	0.255
In.	0.29	0.45	0.88	1.07	5.37	3.30	4.49	1.76	0.66	0.89	0.38	0.28

Calendar year 1955: Max 191 Min 2.7 Mean 16.9 Cfsm 1.08 In. 14.64
Water year 1955-56: Max 289 Min 2.7 Mean 22.9 Cfsm 1.46 In. 19.82

Peak discharge (base, 300 cfs).--Feb. 3 (10:30 a.m.) 366 cfs (6.12 ft); Apr. 15 (11:30 p.m.) 643 cfs (6.92 ft).

Note.--No gage-height record June 4 to July 5; discharge estimated on basis of recorded range in stage, weather records, 2 discharge measurements, and records for station at Fifth Avenue.

First Creek at Fifth Avenue, at Knoxville, Tenn.

Location.--Lat 35°58'40", long 83°54'51", on left bank at Fifth Avenue Bridge in Knoxville, Knox County, 1.8 miles upstream from mouth and 4.1 miles downstream from gage at Mineral Springs Avenue in Knoxville.

Drainage area.--21.1 sq mi, includes 4.5 sq mi without surface drainage.

Records available.--June 1932 to March 1934, April 1945 to September 1956. Published as "at Knoxville" 1932-34.

Gage.--Water-stage recorder. Datum of gage is 883.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. June 23, 1932, to Mar. 31, 1934, staff gage at McCalla Avenue Bridge a quarter of a mile downstream at different datum.

Average discharge.--18 years (1932-33, 1945-56), 28.6 cfs.

Extremes.--Maximum discharge during year, 710 cfs Apr. 16 (gage height, 7.34 ft); minimum, 2.9 cfs Oct. 25; minimum gage height, 0.52 ft Nov. 4.
1932-34, 1945-56: Maximum discharge, 1,230 cfs Feb. 13, 1948 (gage height, 8.92 ft); minimum, 2.1 cfs Sept. 8, 1955; minimum gage height, 0.24 ft Jan. 9, 1954.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Discharge measurements generally made twice each month.

Revisions (water years).--WSP 1276: Drainage area. WSP 1336: 1933.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 4-16, Apr. 16 to May 3, July 26 to Sept. 30)

0.5	2.4	2.0	45
.7	5.3	3.0	98
.9	9.2	4.0	186
1.1	15	5.0	283
1.5	28	6.1	430

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	3.8	5.7	5.5	42	38	24	25	20	8.2	7.3	6.8
2	5.8	3.6	7.7	5.5	127	45	34	44	12	7.1	7.1	8.0
3	4.5	3.6	7.8	5.5	376	64	28	164	11	6.6	8.7	4.5
4	4.0	3.3	143	5.5	166	69	185	66	11	6.4	6.7	4.2
5	3.9	3.7	53	5.7	98	44	62	41	11	6.2	6.4	4.2
6	4.0	3.6	23	5.3	215	41	162	46	10	11	6.4	22
7	27	4.5	20	5.1	120	47	100	44	10	15	6.2	6.6
8	16	3.8	17	5.0	70	133	54	34	10	17	6.2	5.1
9	5.8	3.4	16	4.8	60	57	45	30	10	56	6.2	4.7
10	4.2	13	13	5.0	49	47	42	28	10	15	6.0	4.5
11	3.9	5.1	11	5.0	72	43	107	25	10	10	6.7	4.5
12	3.9	3.4	10	5.0	53	43	70	23	11	9.2	6.7	4.3
13	6.2	3.4	10	4.8	47	47	48	22	11	33	6.6	4.0
14	5.5	9.5	8.8	4.5	41	110	44	21	17	30	6.4	4.0
15	5.1	6.4	8.8	4.5	40	99	229	21	10	24	6.2	3.9
16	4.7	14	8.4	4.7	41	156	416	21	11	37	6.2	3.7
17	4.0	8.4	7.7	4.5	196	84	114	18	9.2	34	6.2	3.9
18	4.0	5.5	24	4.3	276	65	81	17	9.0	17	12	3.9
19	4.0	24	13	7.7	110	53	64	17	9.5	14	6.6	3.6
20	3.9	8.4	9.2	5.5	135	47	51	16	20	19	11	3.7
21	3.7	8.2	8.5	5.0	80	43	43	16	9.7	12	28	3.7
22	3.7	5.5	8.0	4.7	62	41	40	15	12	11	6.4	3.7
23	3.7	53	7.5	9.7	51	38	39	17	9.7	11	5.8	16
24	3.4	25	7.0	13	60	39	36	16	9.0	10	5.3	9.0
25	3.3	15	6.5	12	88	33	34	15	9.0	12	5.1	4.3
26	3.3	12	6.5	11	52	31	32	14	8.6	16	5.6	3.9
27	3.6	9.0	6.0	10	46	29	31	15	8.2	8.6	5.0	3.7
28	4.3	7.3	6.5	14	45	28	27	15	8.2	8.2	21	3.7
29	6.9	6.2	6.5	120	39	36	25	13	7.9	7.7	7.1	3.6
30	3.9	5.7	9.0	189	------	27	29	13	7.7	7.7	5.5	3.4
31	3.6		8.5	58	------	25	------	15	------	8.4	5.6	
Total	175.8	278.9	495.6	550.8	2,837	1,698	2,294	885	322.7	488.3	240.2	164.9
Mean	5.67	9.30	16.0	17.8	97.8	54.8	76.5	28.5	10.8	15.8	7.75	5.50
Cfsm	0.269	0.441	0.758	0.844	4.64	2.60	3.63	1.35	0.512	0.749	0.367	0.261
In.	0.31	0.49	0.87	0.97	5.00	2.99	4.04	1.56	0.57	0.86	0.42	0.29

Calendar year 1955: Max 246 Min 2.6 Mean 21.3 Cfsm 1.01 In. 13.72
Water year 1955-56: Max 416 Min 3.3 Mean 28.5 Cfsm 1.35 In. 18.37

Peak discharge (base, 400 cfs).--Feb. 3 (2 p.m.) 492 cfs (6.41 ft); Apr. 16 (3 a.m.) 710 cfs (7.34 ft).

Note.--No gage-height record Oct. 19, 20, Dec. 19 to Jan. 4; discharge estimated on basis of weather records, recorded range in stage when available, 3 discharge measurements, and records for station at Mineral Springs Avenue.

Tennessee River at Knoxville, Tenn.

Location.--Lat 35°57'17", long 83°51'42", on left bank 0.7 mile downstream from confluence of French Broad and Holston Rivers, 3.5 miles upstream from First Creek, 3.6 miles upstream from Gay Street Bridge at Knoxville, Knox County, and at mile 651.4.

Drainage area.--8,934 sq mi, includes that of First Creek.

Records available.--January 1899 to December 1912 (1899 and 1910-12, gage heights only) and October 1918 to September 1956 in reports of Geological Survey. October 1899 to September 1924 (prior to October 1918, revised) in Tennessee Division of Geology Bulletin 34. Gage-height records collected in this vicinity since 1883 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 797.38 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Sept. 1, 1943, staff or recording gages at several sites within 4 miles of present site at various datums. Since Sept. 1, 1943, auxiliary water-stage recorder 6.3 miles downstream.

Average discharge.--57 years (1899-1956), 12,690 cfs (unadjusted).

Extremes.--Maximum discharge during year, 28,500 cfs Apr. 16; maximum gage height, 17.89 ft Apr. 16; minimum daily discharge, 1,640 cfs Apr. 10; minimum gage height, 9.43 ft Mar. 12.

1899-1956: Maximum discharge observed, 195,000 Mar. 1, 1902 (gage height, 36.4 ft, site and datum then in use), from rating curve extended above 130,000 cfs; minimum daily, 1,010 cfs Mar. 28, 1954; minimum gage height, -1.7 ft Sept. 11, 1925, site and datum then in use.

Maximum stage known, 45.8 ft Mar. 10, 1867, site and datum of gage at old city pumping plant, 3.2 miles downstream from base gage (discharge, 270,000 cfs, from rating curve extended above 130,000 cfs), from high-water profile by Corps of Engineers and Tennessee Valley Authority.

Remarks.--Records good above 10,000 cfs and fair below. Flow regulated by Douglas, South Holston, Boone, Fort Patrick Henry, Cherokee, and Watauga Lakes (see p. 226,227).

Revisions (water years).--WSP 583: 1902(M). WSP 823: Drainage area. See also Records available.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,730	13,600	13,300	8,710	1,850	17,700	16,500	8,050	9,970	14,100	16,400	12,400
2	5,850	11,700	10,400	9,100	3,530	16,500	17,400	8,330	12,100	15,300	17,600	12,900
3	6,470	11,600	10,100	9,220	15,800	16,500	20,000	7,990	6,630	12,100	15,800	9,590
4	9,040	11,300	4,820	11,900	11,900	14,800	17,600	4,240	9,270	4,260	16,700	14,900
5	*7,020	11,400	3,960	13,000	6,520	13,600	7,570	2,900	11,500	6,680	16,000	16,000
6	6,920	11,500	3,250	12,400	9,400	12,800	3,830	2,870	11,100	10,600	16,400	15,800
7	8,920	11,200	2,340	12,700	12,600	6,910	6,030	4,780	9,180	10,300	14,200	15,700
8	10,700	11,300	2,210	7,110	13,800	8,280	3,220	3,470	8,580	7,150	14,700	12,600
9	6,730	*11,200	3,230	13,700	15,900	3,270	1,670	3,460	7,990	7,230	16,300	6,900
10	5,960	11,300	5,940	11,200	15,500	3,520	1,640	3,470	6,980	8,020	16,200	13,100
11	5,900	11,000	7,870	12,300	16,000	3,170	6,220	2,820	7,200	8,020	15,400	17,500
12	6,620	10,600	13,200	13,600	16,000	6,800	8,880	4,800	8,460	5,390	13,200	*17,000
13	5,980	7,720	*12,600	*10,500	15,800	11,900	8,430	5,970	7,900	3,940	13,800	18,700
14	5,870	7,600	11,800	6,340	14,200	12,300	5,300	5,920	8,660	6,970	15,200	19,100
15	6,000	7,910	13,400	3,210	10,600	8,230	7,920	7,710	8,910	8,590	*15,100	19,800
16	5,880	6,490	16,300	3,590	9,990	12,800	23,400	9,590	7,460	11,700	15,400	19,000
17	5,790	3,050	14,000	2,800	10,100	7,520	7,890	11,400	5,690	17,700	14,400	15,200
18	8,090	6,480	13,900	4,070	19,400	8,600	3,980	7,060	9,940	*14,400	14,200	15,900
19	8,820	6,900	16,600	4,730	21,200	10,200	3,000	7,670	12,200	10,300	13,200	17,400
20	10,100	6,730	7,600	3,230	21,400	17,800	2,230	6,110	14,300	7,650	13,800	12,000
21	11,500	5,180	9,760	2,480	20,900	*16,500	2,870	8,460	*15,900	8,350	12,100	18,200
22	11,600	5,180	9,660	2,430	19,600	15,200	3,570	9,850	11,400	7,740	13,200	16,100
23	8,880	5,410	9,660	2,800	*19,100	14,600	2,160	14,400	10,200	8,500	11,600	13,600
24	6,090	5,010	8,340	3,210	18,800	12,700	7,380	13,100	11,000	15,600	11,900	13,600
25	5,330	1,950	3,010	2,850	19,400	17,300	*11,700	*13,900	11,700	14,300	13,800	14,100
26	6,120	1,890	2,990	2,460	19,100	17,400	10,500	13,100	10,200	13,300	13,500	15,400
27	9,660	1,890	10,100	2,060	18,400	17,300	7,530	11,700	7,350	14,400	10,400	16,800
28	9,570	3,180	9,590	1,690	18,300	16,600	6,660	12,700	6,210	14,300	13,400	15,100
29	10,100	9,860	3,950	3,400	17,600	17,100	7,200	*12,900	11,400	14,500	13,500	14,800
30	10,300	13,200	4,350	8,510	------	17,300	7,150	10,200	13,500	16,200	12,500	15,000
31	10,900	--	4,920	4,630	------	17,000	-------	10,600	--- ---	16,600	12,200	-- --
Total	244,440	243,330	262,950	209,930	432,690	392,200	239,430	249,520	292,860	334,190	441,900	453,990
Mean	7,885	8,111	8,482	6,772	14,920	12,650	7,981	8,049	9,762	10,780	14,250	15,130
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 33,800 Min 1,450 Mean 10,800 Cfsm 1.21 In. 16.40
Water year 1955-56: Max 23,400 Min 1,640 Mean 10,380 Cfsm 1.16 In. 15.81

* Discharge measurement made on this day.

Little River near Maryville, Tenn.

Location.--Lat 35°47'10", long 83°53'04", on right bank on downstream side of bridge on U. S. Highway 411, 0.8 mile downstream from Crooked Creek, 5.0 miles east of Maryville, Blount County, and at mile 17.3.

Drainage area.--269 sq mi.

Records available.--July 1951 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 850.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--5 years, 468 cfs.

Extremes.--Maximum discharge during year, 12,400 cfs Apr. 16 (gage height, 18.35 ft); minimum, 32 cfs Aug. 27 (gage height, 6.85 ft).
1951-56: Maximum discharge, 13,300 cfs Jan. 16, 1954 (gage height, 18.44 ft); minimum, that of Aug. 27, 1956; minimum gage height, 6.72 ft Sept. 16, 18, Oct. 7, 1954.
Floods of March 1875 and April 1920 reached stages of 31.0 and 24.0 ft, present datum, respectively. Flood of Mar. 29, 1951, reached a stage of 21.05 ft (discharge, 20,200 cfs) present datum, from floodmarks.

Remarks.--Records good. Diurnal fluctuation at low flow caused by small mills above station. Beginning Aug. 1, the town of Maryville diverted an average of about 1.5 cfs for municipal supply, 300 ft above the gage.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 1-13)

6.9	37	9.0	1,250
7.0	54	11.0	3,150
7.2	104	13.0	5,300
7.6	245	15.1	7,830
8.0	475		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	576	107	229	260	1,040	615	559	344	*386	198	90	63
2	194	*104	*245	245	1,600	*671	*573	*392	285	*146	*85	126
3	*136	104	250	*237	*7,760	664	573	1,250	217	146	117	77
4	107	110	679	255	4,620	848	650	1,480	191	143	107	*71
5	99	104	856	209	2,920	745	580	896	177	146	90	107
6	90	101	601	202	3,630	692	1,260	715	163	146	85	213
7	175	107	475	198	3,640	650	1,520	730	153	217	80	521
8	1,660	126	404	188	1,990	1,200	984	692	146	184	72	180
9	580	107	482	163	1,420	1,010	760	587	136	250	72	126
10	328	114	404	177	1,080	832	650	524	130	356	61	99
11	237	139	344	174	1,100	722	1,130	468	126	217	61	90
12	191	123	306	170	968	629	1,380	423	120	174	96	88
13	170	120	280	167	848	685	960	392	120	156	93	77
14	170	450	260	153	730	1,380	808	368	188	188	77	80
15	153	531	245	153	678	*2,160	2,020	392	160	198	77	63
16	139	374	229	156	636	*3,460	7,560	368	146	184	68	68
17	130	784	205	150	2,090	2,570	2,580	328	156	237	61	70
18	126	517	285	143	3,820	1,650	1,640	300	136	194	51	68
19	156	622	423	231	2,350	1,190	*1,200	280	123	163	56	70
20	143	531	362	317	1,990	920	960	270	130	167	212	64
21	126	404	328	237	1,620	760	792	255	126	205	110	61
22	120	334	300	213	1,250	664	700	245	120	160	107	52
23	114	356	280	290	1,000	594	629	237	139	143	82	61
24	107	442	275	517	912	601	552	275	250	146	72	101
25	104	356	275	423	1,040	538	496	255	229	198	59	126
26	101	423	260	430	1,130	482	456	237	205	163	61	107
27	99	374	237	368	936	462	423	225	156	126	90	110
28	99	334	225	368	864	442	392	213	139	114	85	85
29	153	280	217	644	700	952	368	255	123	110	72	80
30	160	245	265	2,250	-------	808	344	221	117	104	66	77
31	120	-------	322	1,800	-------	650	-------	209	-------	96	63	-------
Total	6,863	8,823	10,548	11,488	54,362	30,246	33,499	13,826	4,993	5,375	2,578	3,181
Mean	221	294	340	371	1,875	976	1,117	446	166	173	83.2	106
Cfsm	0.822	1.09	1.26	1.38	6.97	3.63	4.15	1.66	0.617	0.643	0.309	0.394
In.	0.95	1.22	1.46	1.59	7.52	4.18	4.63	1.91	0.69	0.74	0.36	0.44

Calendar year 1955: Max 5,530 Min 49 Mean 463 Cfsm 1.72 In. 23.37
Water year 1955-56: Max 7,760 Min 51 Mean 508 Cfsm 1.89 In. 25.69

Peak discharge (base, 4,800 cfs).--Feb. 3 (5 p.m.) 10,800 cfs (17.35 ft); Feb. 6 (11:30 p.m.) 5,300 cfs (13.00 ft); Apr. 16 (6:30 a.m.) 12,400 cfs (18.35 ft).
* Discharge measurement made on this day.

Little Tennessee River near Prentiss, N. C.

Location.--Lat 35°08'57", long 83°22'46", on left bank 600 ft upstream from Owenby Branch, 0.5 mile upstream from Cartoogechaye Creek, and 2 miles north of Prentiss, Macon County.

Drainage area.--140 sq mi.

Records available.--June 1944 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,008.39 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--12 years, 369 cfs.

Extremes.--1954-55: Maximum discharge during water year, 3,150 cfs May 23 (gage height, 8.15 ft); minimum, 65 cfs Oct. 16, 17 (gage height, 1.21 ft).
1955-56: Maximum discharge during water year, 3,410 cfs Apr. 16 (gage height, 9.09 ft); minimum, 90 cfs Sept. 21, 22 (gage height, 1.35 ft).
1944-56: Maximum discharge, 5,900 cfs June 16, 1949 (gage height, 12.85 ft); minimum, 65 cfs Oct. 16, 17, 1954 (gage height, 1.21 ft).
Flood in October 1898 reached a stage of about 15 ft, from profiles by Tennessee Valley Authority.

Remarks.--Records excellent except those for periods of backwater effect, which are good.

Revisions (water years).--WSP 1236: 1949(M).

Rating tables, Oct. 1, 1954 to Sept. 30, 1956, except periods of backwater (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1, 1954, to Oct. 7, 1955

1.2	64	3.0	592
1.3	77	4.0	1,180
1.6	125	5.0	1,720
2.0	215	6.0	2,200
2.5	378	8.0	3,190

Oct. 8, 1955, to Sept. 30, 1956

1.3	82	2.5	390
1.5	115	3.0	600
2.0	225	4.0	1,180

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	73	74	116	431	137	353	353	342	494	232	300	192
2	85	76	107	367	235	328	353	332	468	223	374	176
3	73	76	101	304	226	307	504	321	447	223	374	172
4	70	76	97	265	190	300	400	310	423	221	314	167
5	69	116	112	240	178	294	378	304	408	237	321	167
6	68	90	281	221	k1,230	294	762	294	400	255	294	167
7	69	81	167	202	*k2,200	290	k914	284	411	252	310	165
8	70	80	133	190	818	268	645	277	415	223	360	156
9	70	78	174	183	558	258	539	*268	423	252	324	156
10	69	77	195	188	455	262	485	262	382	232	*268	154
11	68	77	147	262	455	265	804	255	408	338	237	149
12	67	*76	131	215	385	252	848	255	367	489	226	147
13	68	76	178	195	335	258	898	442	346	660	210	147
14	*68	76	185	181	321	300	1,260	443	328	*451	294	147
15	68	76	149	176	304	277	926	332	318	393	374	143
16	65	105	135	174	284	271	758	728	307	342	431	141
17	68	156	127	*163	310	268	670	1,220	294	307	324	137
18	69	105	223	156	284	268	606	752	287	290	268	133
19	70	99	190	190	265	297	563	578	297	332	243	*127
20	69	147	156	185	252	300	530	489	408	281	232	114
21	70	111	139	174	240	290	489	782	451	321	243	112
22	70	93	*133	178	267	k1,520	476	k1,510	353	367	249	111
23	70	94	127	181	826	k1,010	459	*k2,820	*349	310	232	109
24	70	97	123	169	578	640	468	1,740	328	360	218	111
25	70	90	116	158	489	530	*439	1,160	294	300	202	167
26	70	87	114	149	415	587	419	914	290	371	192	143
27	70	93	112	152	389	489	396	776	265	297	188	127
28	70	127	141	149	374	443	382	685	255	271	178	131
29	77	265	k955	143	-	415	367	626	246	318	174	141
30	77	145	*k1,720	137	-------	385	353	582	240	294	172	143
31	74	-------	*621	131	-------	371	-------	535	-------	284	215	-------
Total	2,184	3,019	7,405	6,209	13,000	12,390	17,444	20,618	10,702	9,726	8,341	4,352
Mean	70.5	101	239	200	464	400	581	665	357	314	269	145
Cfsm	0.504	0.721	1.71	1.43	3.31	2.86	4.15	4.75	2.55	2.24	1.92	1.04
In.	0.58	0.80	1.97	1.65	3.45	3.29	4.63	5.48	2.84	2.58	2.22	1.16

Calendar year 1954: Max 2,660 Min 65 Mean 308 Cfsm 2.20 In. 29.82
Water year 1954-55: Max 2,820 Min 65 Mean 316 Cfsm 2.26 In. 30.65

Peak discharge (base, 1,500 cfs).--Dec. 30 (7 a.m.) 2,010 cfs (5.82 ft); Feb. 7 (12:30 a.m.) 2,440 cfs (7.81 ft); May 23 (3 a.m.) 3,150 cfs (8.15 ft).

* Discharge measurement made on this day.
k Backwater from Cartoogechaye Creek; discharge computed by using fall as a factor.

Little Tennessee River near Prentiss, N. C.--Continued

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	226	122	139	128	162	550	348	446	256	220	199	113
2	160	120	157	128	329	573	341	450	247	192	187	110
3	135	119	177	126	510	555	334	568	236	199	199	108
4	125	117	225	124	640	550	362	490	231	294	182	110
5	123	117	282	124	655	494	344	446	228	217	180	115
6	127	117	222	122	739	478	875	430	220	247	180	147
7	162	122	194	120	*832	466	788	591	217	363	*160	236
8	458	126	182	119	564	502	560	528	212	288	147	153
9	253	120	187	113	462	454	490	470	209	369	141	129
10	189	131	173	119	394	426	454	434	209	279	139	119
11	168	157	164	119	478	414	744	410	212	228	135	115
12	157	131	*155	119	434	*394	665	390	*204	204	157	112
13	153	128	145	117	386	410	*591	376	207	*231	149	*108
14	160	143	141	113	352	568	532	362	231	217	135	105
15	147	177	141	113	330	546	k852	352	263	197	143	101
16	145	153	133	113	299	952	*k3,000	338	242	242	194	98
17	141	*145	135	112	708	854	k1,580	327	207	282	143	96
18	139	129	155	112	1,010	670	992	316	202	215	135	96
19	*133	151	175	162	830	582	830	306	212	242	141	98
20	128	157	151	164	1,170	528	740	299	212	335	131	95
21	126	139	145	135	884	486	675	*288	204	374	187	92
22	122	131	141	128	695	462	635	285	231	279	157	92
23	122	164	139	133	591	438	596	279	239	239	137	93
24	120	231	137	177	555	422	560	310	209	222	129	98
25	119	185	137	157	630	398	532	302	192	209	124	126
26	119	209	133	145	715	386	514	285	197	247	122	473
27	119	182	131	139	630	376	494	288	177	318	122	209
28	115	166	129	137	745	372	482	275	166	312	124	157
29	149	151	129	137	620	438	470	279	162	187	128	141
30	137	143	141	151	-------	386	450	299	192	258	120	129
31	124	-------	131	171	-------	362	-------	263	-------	220	119	------
Total	4,801	4,383	4,926	4,077	17,349	15,492	20,830	11,482	6,426	7,826	4,646	3,974
Mean	155	146	159	132	598	500	694	370	214	252	150	132
Cfsm	1.11	1.04	1.14	0.943	4.27	3.57	4.96	2.64	1.53	1.80	1.07	0.943
In.	1.28	1.16	1.31	1.08	4.61	4.12	5.53	3.05	1.71	2.08	1.23	1.06

Calendar year 1955: Max 2,820 Min 109 Mean 320 Cfsm 2.29 In. 31.05
Water year 1955-56: Max 3,000 Min 92 Mean 290 Cfsm 2.07 In. 28.22

Peak discharge (base, 1,500 cfs).--Apr. 16 (7 a.m.) 3,410 cfs (9.09 ft).
* Discharge measurement made on this day.
k Backwater from Cartoogechaye Creek; discharge computed by using fall as a factor.

Cullasaja River at Highlands, N. C.

Location.--Lat 35°04'14", long 83°13'57", on right bank 0.6 mile downstream from Highlands municipal dam, 1.0 mile downstream from Big Creek, and 2.3 miles northwest of Highlands, Macon County.

Drainage area.--14.9 sq mi.

Records available.--December 1927 to September 1956. Except for figures of momentary maximum discharge, records prior to Aug. 29, 1931, have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Datum of gage is 3,373.63 ft above mean sea level. Prior to Aug. 29, 1931, water-stage recorder on crest of Highlands municipal dam 0.6 mile upstream at datum 230.22 ft higher.

Average discharge.--25 years (1931-56), 57.9 cfs.

Extremes.--Maximum discharge during year, 880 cfs Apr. 16 (gage height, 3.30 ft); minimum, 2.0 cfs Oct. 30 (gage height, 0.18 ft); minimum daily, 2.4 cfs Aug. 26.

1927-56: Maximum discharge, 5,100 cfs Aug. 30, 1940 (gage height, 9.35 ft), from rating curve extended above 800 cfs on basis of computation of peak flow over dam; minimum, 0.2 cfs Oct. 13, 14, 1947; minimum daily, 0.2 cfs Oct. 13, 1947.

Remarks.--Records excellent. Low flow regulated by Sequoyah Lake. Some diurnal fluctuation caused by powerplant at Highlands municipal dam.

Revisions (water years).--WSP 728: 1931. WSP 823: Drainage area. WSP 953: 1941(M). WSP 1206: 1950(m). See also Records available.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.2	2.2	1.2	58
.3	3.8	1.4	82
.4	6.3	1.7	133
.6	16	2.0	203
.8	27	2.3	303
1.0	40	2.6	446

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	14	19	18	6.2	76	46	51	26	39	23	12
2	19	14	19	18	113	78	45	51	25	28	22	13
3	17	14	20	18	122	77	39	60	24	25	21	10
4	17	13	44	18	127	78	43	52	23	43	24	10
5	17	14	40	18	106	67	40	47	24	47	27	12
6	17	14	29	18	243	65	148	52	23	55	22	32
7	59	16	26	18	*148	*61	100	88	22	85	*20	22
8	126	15	25	18	100	69	76	66	21	87	19	15
9	38	29	26	*17	85	58	67	53	20	78	19	13
10	28	23	22	4.0	74	54	64	46	27	*55	19	12
11	24	21	21	4.0	140	53	99	45	36	44	19	10
12	21	19	20	3.8	92	50	*88	45	*37	36	19	9.5
13	20	18	*19	9.0	78	59	82	41	31	40	19	9.0
14	20	20	19	17	69	99	76	38	45	36	19	8.5
15	19	23	19	17	64	82	237	36	44	34	19	8.1
16	19	21	18	17	59	161	412	36	45	38	19	8.1
17	21	20	18	17	136	106	163	34	31	38	19	7.7
18	19	20	19	17	156	90	127	31	26	32	19	8.1
19	*17	19	18	17	122	81	109	29	26	29	19	8.1
20	17	16	19	17	187	72	99	28	29	58	19	7.7
21	17	19	19	17	122	67	90	*29	28	57	18	7.3
22	17	19	19	16	102	64	84	28	29	44	18	7.7
23	17	20	22	17	91	59	78	28	29	46	10	7.7
24	17	28	20	17	90	57	73	35	28	40	3.1	8.1
25	17	25	20	17	106	52	69	32	24	34	2.6	24
26	17	29	20	17	94	50	65	31	22	32	2.4	80
27	17	23	19	17	97	48	59	32	16	28	6.2	24
28	16	21	19	17	99	54	59	28	15	26	12	15
29	2.9	19	19	17	82	76	58	32	20	25	14	14
30	14	19	19	17	------	55	54	37	24	24	13	12
31	14	- -	19	9.9	------	48	------	29	------	24	11	----
Total	726.9	585	675	479.7	3,110.2	2,166	2,849	1,270	820	1,287	516.3	435.6
Mean	23.4	19.5	21.8	15.5	107	69.9	95.0	41.0	27.3	41.5	16.7	14.5
Cfsm	1.57	1.31	1.46	1.04	7.18	4.69	6.38	2.75	1.83	2.79	1.12	0.973
In.	1.81	1.46	1.68	1.20	7.76	5.41	7.11	3.17	2.05	3.21	1.29	1.09

Calendar year 1955: Max 502 Min 2.9 Mean 56.7 Cfsm 3.81 In. 51.63
Water year 1955-56: Max 412 Min 2.4 Mean 40.8 Cfsm 2.74 In. 37.24

Peak discharge (base, 550 cfs).--Apr. 16 (12:30 a.m.) 880 cfs (3.30 ft).
* Discharge measurement made on this day.

Cullasaja River at Cullasaja, N. C.

Location.--Lat 35°09'59", long 83°19'25", on right bank at Cullasaja, Macon County, 1.4 miles downstream from Ellijay Creek and 4.1 miles upstream from mouth.

Drainage area.--86.5 sq mi.

Records available.--June 1907 to December 1909, February 1921 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,023.37 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to May 23, 1934, staff gages at same site and datum.

Average discharge.--37 years, 221 cfs.

Extremes.--Maximum discharge during year, 3,220 cfs Apr. 15 (gage height, 10.80 ft); minimum, 40 cfs Sept. 22 (gage height, 0.67 ft).

1907-9, 1921-56: Maximum discharge, 16,500 cfs Aug. 30, 1940 (gage height, 20.83 ft), from rating curve extended above 8,100 cfs on basis of slope-area determination of peak flow; minimum, 19 cfs Sept. 18-22, 1925, Jan. 2, 1940.

Maximum stage known, that of Aug. 30, 1940. A stage of 17.2 ft, from floodmarks, occurred in July 1916, but has been exceeded at other times, according to information by State Highway Commission.

Remarks.--Records excellent except those for periods of ice effect, which are good. Slight regulation at low flow by Sequoyah Lake and mill on Buck Creek. Records of chemical analyses for the water year 1956 are given in WSP 1450.

Revisions (water years).--WSP 823: Drainage area. WSP 1143: 1907-10, 1921-31, 1932(M), 1933-38, 1939(M), 1940-43, 1944(M), 1946, 1947(M).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	35	1.5	134
.7	42	2.0	226
.8	50	3.0	487
1.0	69	5.0	1,080
1.2	92	7.0	1,780

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	173	66	b75	74	78	293	195	237	145	119	88	51
2	88	*66	b85	74	253	305	193	253	131	111	86	52
3	78	66	88	74	421	293	181	346	124	100	87	*49
4	73	64	160	73	461	298	197	278	120	102	84	64
5	73	65	171	71	429	264	183	244	120	140	95	58
6	79	65	125	71	677	253	468	241	119	153	82	99
7	121	76	112	71	*568	*244	407	360	116	246	*74	104
8	373	70	108	b65	376	278	300	300	113	172	70	67
9	148	74	128	*b60	308	239	269	262	111	213	69	56
10	109	92	104	b60	260	228	248	241	106	167	66	52
11	96	95	101	59	349	224	396	226	136	132	70	50
12	88	74	*b95	57	283	213	381	216	*142	119	71	48
13	84	71	b90	56	248	235	*365	207	137	*131	66	47
14	87	91	b85	b60	224	352	330	197	153	124	64	45
15	81	95	b75	b60	211	328	825	189	164	145	63	44
16	79	84	b75	69	201	*606	1,650	183	147	148	65	42
17	81	81	b85	b65	398	481	744	172	128	153	67	41
18	79	74	97	68	525	390	588	165	118	127	62	42
19	*78	90	92	93	461	341	504	160	112	180	61	42
20	74	82	84	80	734	305	446	153	120	165	61	41
21	74	76	82	71	522	283	401	*152	118	197	77	41
22	73	76	80	68	412	266	370	148	125	145	66	41
23	72	97	80	80	349	250	343	144	120	140	62	42
24	71	106	85	95	330	246	320	198	118	126	*48	46
25	69	100	82	81	387	228	300	172	104	118	45	87
26	69	111	80	77	376	220	285	153	108	112	45	294
27	68	96	78	74	362	209	271	155	95	104	44	101
28	68	88	76	77	384	205	262	147	80	97	56	70
29	85	b75	79	77	320	271	253	147	91	91	66	61
30	63	b70	80	97	------	224	241	158	104	87	57	57
31	67		74	88	------	205	--- --	139	--- -- -	90	54	----- --
Total	2,919	2,436	2,911	2,245	10,907	8,777	11,916	6,343	3,625	4,254	2,071	1,934
Mean	94.2	81.2	93.9	72.4	376	283	397	205	121	137	66.8	64.5
Cfsm	1.09	0.939	1.09	0.837	4.35	3.27	4.59	2.37	1.40	1.58	0.772	0.746
In.	1.26	1.05	1.25	0.97	4.69	3.77	5.12	2.73	1.56	1.83	0.89	0.83

Calendar year 1955: Max 2,310 Min 63 Mean 202 Cfsm 2.34 In. 31.71
Water year 1955-56: Max 1,650 Min 41 Mean 165 Cfsm 1.91 In. 25.95

Peak discharge (base, 2,000 cfs).--Apr. 15 (11:30 p.m.) 3,220 cfs (10.80 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Little Tennessee River at Needmore, N. C.

Location.--Lat 35°20'11", long 83°31'39", on left bank 0.8 mile downstream from DeHart Creek, 0.8 mile north of Needmore, Swain County, 2.4 miles downstream from Brush Creek, and 6.3 miles downstream from Tellico Creek.

Drainage area.--436 sq mi.

Records available.--June 1944 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,761.19 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--12 years, 1,008 cfs.

Extremes.--Maximum discharge during year, 8,960 cfs Apr. 16 (gage height, 7.35 ft); minimum, 66 cfs Sept. 22 (gage height, 1.24 ft); minimum daily, 202 cfs Sept. 22.
1944-56: Maximum discharge, 20,200 cfs June 16, 1949 (gage height, 11.10 ft), from rating curve extended above 12,000 cfs by logarithmic plotting; minimum, 52 cfs Nov. 7, 8, 1954 (gage height, 1.16 ft); minimum daily, 71 cfs Nov. 7, 1954.
Floods of October 1898 and Aug. 30, 1940, reached stages of about 13 and 11.5 ft, respectively, from flood profiles by Tennessee Valley Authority.

Remarks.--Records excellent except those below 250 cfs, which are good. Considerable diurnal fluctuation caused by Porters Bend powerplant at Lake Emory.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.7	198	4.0	2,340
1.8	241	5.0	3,960
2.0	345	6.0	5,880
2.5	695	7.0	8,120
3.0	1,110		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	698	323	408	382	536	1,620	1,000	1,160	782	576	508	270
2	509	340	426	382	945	1,650	987	1,180	727	543	479	266
3	388	323	493	382	2,020	1,610	987	1,810	682	555	459	289
4	357	328	794	382	2,340	1,650	1,010	1,570	650	694	486	275
5	340	323	1,150	369	2,260	1,440	1,020	1,330	656	638	493	293
6	345	312	786	369	2,300	1,360	1,660	1,260	668	646	439	312
7	388	323	668	369	2,760	1,310	2,400	1,530	631	908	406	554
8	1,540	357	602	357	1,850	1,500	1,600	1,570	636	794	376	452
9	830	328	663	323	1,430	1,320	1,360	1,320	640	847	357	323
10	560	357	564	345	1,220	1,210	1,230	1,200	607	814	345	285
11	486	486	543	357	1,300	1,160	1,620	1,150	630	620	382	270
12	439	382	515	345	1,300	1,100	1,860	1,080	620	535	465	270
13	*406	351	486	334	1,100	1,140	1,600	1,050	623	612	388	251
14	400	400	479	334	1,020	2,040	1,440	1,000	708	604	351	241
15	426	493	459	334	*978	2,230	1,870	970	784	645	*340	232
16	388	465	446	351	937	3,030	7,900	937	698	*852	382	228
17	369	446	426	345	1,460	3,160	*5,130	896	600	894	369	*220
18	376	*406	508	334	2,780	2,340	2,980	863	606	650	340	203
19	363	438	*584	419	2,550	2,000	2,370	831	610	724	369	232
20	357	493	486	515	3,340	*1,740	2,050	823	645	732	357	216
21	351	406	459	419	2,840	1,570	1,830	814	*612	906	382	218
22	357	382	439	382	2,030	1,430	1,710	*790	608	724	413	202
23	340	452	432	406	1,650	1,350	1,560	790	680	692	340	211
24	340	701	426	*618	1,510	1,300	1,440	814	614	641	312	251
25	334	567	426	529	1,650	1,220	1,380	921	527	612	285	275
26	328	587	419	472	2,070	1,140	1,380	798	529	568	290	1,160
27	323	533	406	439	1,750	1,110	1,300	790	508	688	275	633
28	334	493	388	432	2,190	1,070	1,250	774	459	548	290	439
29	382	432	400	446	1,860	1,230	1,220	766	452	493	340	363
30	388	401	426	515	-------	1,130	1,170	798	520	523	306	328
31	345	-------	413	618	-------	1,060	-------	742	-------	529	285	-------
Total	13,787	12,628	16,120	12,604	51,976	48,220	56,314	32,327	18,712	20,807	11,609	9,762
Mean	445	421	520	407	1,792	1,555	1,877	1,043	624	671	374	325
Cfsm	1.02	0.966	1.19	0.933	4.11	3.57	4.31	2.39	1.43	1.54	0.858	0.745
In.	1.18	1.08	1.38	1.08	4.43	4.11	4.80	2.76	1.60	1.77	0.99	0.83

Calendar year 1955: Max 7,170 Min 296 Mean 933 Cfsm 2.14 In. 29.08
Water year 1955-56: Max 7,900 Min 202 Mean 833 Cfsm 1.91 In. 26.01

Peak discharge (base, 5,000 cfs).--Apr. 16 (12 m.) 8,960 cfs (7.35 ft).
* Discharge measurement made on this day.

Nantahala River near Rainbow Springs, N. C.

Location.--Lat 35°07'35", long 83°37'11", on right bank on Nantahala Forest Service road 300 ft upstream from Roaring Fork, 1,000 ft downstream from Buck Creek, and 5 miles downstream from town of Rainbow Springs, Macon County.

Drainage area.--51.9 sq mi.

Records available.--October 1940 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 3,072.97 ft above mean sea level, datum of 1929.

Average discharge.--16 years, 193 cfs.

Extremes.--Maximum discharge during year, 2,170 cfs Apr. 15 (gage height, 4.88 ft); minimum, 48 cfs Sept. 20, 21, 22, 23 (gage height, 0.67 ft).
1940-56: Maximum discharge, 6,300 cfs June 16, 1949 (gage height, 9.70 ft), from rating curve extended above 3,000 cfs on basis of slope-area determination of peak flow; minimum, 33 cfs Nov. 18, 19, 1953 (gage height, 0.60 ft).

Remarks.--Records excellent except those for periods of ice effect, which are good. Occasional regulation caused by fish trap.

Revisions (water years).--WSP 973: 1941(M).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	37	1.5	242
.8	70	2.0	426
1.0	111	2.5	642
1.2	157	3.0	910

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	122	66	118	105	126	360	214	*230	165	154	105	63
2	96	*63	135	103	*219	422	208	277	135	122	*100	63
3	70	66	135	100	385	395	*203	430	129	*164	111	61
4	65	63	299	98	383	376	255	330	124	339	113	70
5	*61	63	262	96	334	*345	214	287	*122	264	107	70
6	74	61	*203	*94	426	342	439	273	124	266	100	129
7	251	70	180	94	376	323	330	372	120	252	90	113
8	394	65	167	b86	312	391	283	316	115	245	86	78
9	157	61	180	b86	276	330	262	287	118	245	86	70
10	120	74	150	b88	245	312	249	269	115	200	82	63
11	100	82	143	90	290	301	327	252	120	170	90	*61
12	92	74	138	90	239	280	276	239	115	152	94	59
13	96	72	133	88	226	319	259	226	118	189	86	56
14	92	129	129	b84	211	602	252	217	143	162	80	54
15	82	120	124	b82	211	466	644	208	135	147	84	52
16	80	96	122	86	203	667	875	200	109	183	84	50
17	80	107	133	86	575	546	546	194	103	220	76	50
18	78	88	167	84	564	478	450	186	105	160	74	54
19	78	118	138	120	551	422	395	178	185	157	80	50
20	74	96	126	98	740	383	357	173	147	167	132	49
21	72	90	122	86	550	353	330	167	118	147	125	48
22	70	86	115	84	458	342	312	162	115	138	84	48
23	70	224	115	105	395	316	294	157	111	145	78	52
24	68	175	115	113	410	305	273	160	103	138	74	68
25	66	165	115	96	500	283	259	157	109	126	70	111
26	66	167	109	90	442	269	245	152	103	118	70	218
27	66	140	105	88	462	256	233	152	92	111	68	86
28	66	129	103	90	442	245	230	150	88	107	72	72
29	116	115	122	94	387	276	217	180	84	126	76	66
30	72	115	122	160	-------	236	208	155	98	122	68	63
31	68	-------	107	126	-------	226	-------	138	-------	113	68	-------
Total	3,062	3,040	4,432	2,990	10,938	11,167	9,639	6,874	3,568	5,349	2,713	2,147
Mean	98.8	101	143	96.5	377	360	321	222	119	173	87.5	71.6
Cfsm	1.90	1.95	2.76	1.86	7.26	6.94	6.18	4.28	2.29	3.33	1.69	1.38
In.	2.19	2.18	3.18	2.14	7.84	8.00	6.91	4.93	2.56	3.83	1.94	1.54

Calendar year 1955: Max 1,220 Min 59 Mean 181 Cfsm 3.49 In. 47.22
Water year 1955-56: Max 875 Min 48 Mean 180 Cfsm 3.47 In. 47.24

Peak discharge (base, 1,500 cfs).--Apr. 15 (10 p.m.) 2,170 cfs (4.88 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Nantahala River at Nantahala, N. C.

Location.--Lat 35°17'55", long 83°39'22", on left bank on U. S. Highway 19, 1.0 mile northeast of Nantahala, Swain County, 2.3 miles downstream from Rowlin Creek, and 2.6 miles downstream from Nantahala Dam powerhouse.

Drainage area.--144 sq mi.

Records available.--May 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,894.68 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--14 years, 479 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,740 cfs Apr. 15 (gage height, 4.50 ft); minimum, 18 cfs Jan. 14 (gage height, 1.21 ft); minimum daily, 23 cfs Sept. 23.
1942-56: Maximum discharge, 7,510 cfs Feb. 10, 1946 (gage height, 8.15 ft); minimum, 16 cfs Nov. 9, 1953 (gage height, 1.19 ft); minimum daily, 17 cfs Nov. 8, 16, 1952, Oct. 25, 1953.

Remarks.--Records excellent. Flow regulated by Nantahala Lake (see p. 227) and Queens Creek Lake (capacity, about 300 cfs-days).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.2	17	2.5	302
1.4	35	3.0	558
1.7	77	3.5	885
2.0	140	4.0	1,260

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	440	646	626	465	398	446	124	442	433	150	50	384
2	380	646	519	431	414	553	136	457	460	542	46	40
3	614	646	406	470	722	540	442	539	453	464	125	25
4	614	646	378	640	520	580	470	497	512	79	34	391
5	614	646	628	646	260	382	524	610	400	433	34	589
6	614	652	86	429	232	506	664	457	395	516	44	601
7	652	578	72	454	299	464	718	496	392	450	41	595
8	489	652	67	417	346	548	698	492	402	392	42	583
9	332	652	161	466	500	498	685	482	386	410	42	522
10	576	652	408	475	549	508	685	470	376	396	30	589
11	626	536	144	445	638	498	711	448	57	396	31	595
12	620	442	478	480	533	308	692	461	54	365	33	595
13	*633	33	462	452	243	408	405	438	58	416	32	589
14	626	426	*523	154	406	683	112	466	58	372	34	589
15	633	469	540	31	*272	600	624	560	57	458	*31	580
16	626	492	485	442	205	688	1,140	472	47	450	29	409
17	626	672	36	450	221	586	*834	436	46	448	26	*524
18	620	*581	58	220	534	348	802	428	46	412	26	595
19	626	588	156	53	282	714	770	268	58	409	29	601
20	590	484	54	40	594	*717	750	431	72	*362	385	601
21	608	473	438	96	674	642	716	434	*614	633	47	592
22	611	652	514	34	759	449	159	*430	428	436	32	78
23	31	476	472	301	590	286	492	426	50	404	83	23
24	478	149	43	*481	176	438	481	426	45	400	26	444
25	633	464	39	184	229	123	498	414	398	452	25	610
26	633	426	46	394	216	434	458	410	384	419	25	640
27	626	373	482	146	208	498	185	403	387	418	346	608
28	626	572	472	260	614	152	110	421	386	304	384	608
29	652	607	476	45	552	116	93	414	390	390	384	608
30	633	633	443	86	---	103	442	412	380	394	393	252
31	652	---	589	422	---	400	---	411	---	394	376	---
Total	17,734	15,964	10,301	10,109	12,186	14,216	15,620	13,951	8,224	12,564	3,265	14,460
Mean	572	532	332	326	420	459	521	450	274	405	105	482
(†)	-10,900	-8,500	-200	-2,700	+15,100	+13,500	+8,400	+2,100	+500	-1,000	+2,500	-9,500
Adjusted for change in contents in Nantahala Lake												
Mean	220	249	326	239	941	894	801	518	291	373	186	165
Cfsm	1.53	1.73	2.26	1.66	6.53	6.21	5.56	3.60	2.02	2.59	1.29	1.15
In.	1.76	1.93	2.61	1.91	7.05	7.16	6.20	4.15	2.25	2.99	1.49	1.28

	Observed			Adjusted				
Calendar year 1955:	Max 1,040	Min 31	Mean 424	Mean 432	Cfsm 3.00	In. 40.75
Water year 1955-56:	Max 1,140	Min 23	Mean 406	Mean 431	Cfsm 2.99	In. 40.78

* Discharge measurement made on this day.
† Change in contents, in cfs-days, in Nantahala Lake; furnished by Tennessee Valley Authority.

Tuckasegee River at Tuckasegee, N. C.

Location.--Lat 35°16'55", long 83°07'37", on right bank 0.9 mile north of Tuckasegee, Jackson County, and 1.0 mile downstream from West Fork Tuckasegee River.

Drainage area.--143 sq mi.

Records available.--June 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,125.16 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--22 years, 383 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,630 cfs Apr. 15 (gage height, 3.90 ft); minimum, 5.2 cfs Sept. 3 (gage height, 0.54 ft); minimum daily, 10 cfs Sept. 2.
1934-56: Maximum discharge, 40,800 cfs Aug. 30, 1940 (gage height, 21.1 ft, from floodmarks), from rating curve extended above 7,000 cfs on basis of slope-area determinations at gage heights 14.3 and 21.1 ft; minimum, that of Sept. 3, 1956; minimum daily, 8.0 cfs Sept. 6, 1952.

Remarks.--Records excellent. Flow regulated by Thorpe Lake, Cedar Cliff Lake, Bear Creek Lake, and Tennessee Creek project lakes (see p. 227,231).

Revisions (water years).--WSP 823: Drainage area. WSP 1053: 1943.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.6	7.0	2.0	344
.8	21	2.5	620
1.0	44	3.0	955
1.3	96	3.5	1,320
1.6	180		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	546	267	578	170	152	501	56	347	*254	44	376	44
2	157	263	592	293	321	384	152	284	112	285	109	10
3	267	267	488	134	344	301	198	590	38	272	94	14
4	267	305	484	240	236	218	216	*468	84	134	40	160
5	414	267	323	153	359	193	169	178	254	186	22	160
6	273	267	34	136	568	369	*662	404	167	310	82	167
7	438	424	32	64	670	420	671	418	188	571	341	175
8	530	*271	32	152	666	435	312	564	151	330	*503	18
9	144	377	80	320	*454	*306	528	480	154	336	503	20
10	588	450	141	243	574	116	234	329	176	52	504	154
11	*788	231	86	352	454	374	606	343	176	350	148	156
12	263	198	193	132	504	240	447	94	194	134	38	*165
13	258	37	232	192	504	254	404	334	150	210	516	160
14	263	423	271	43	320	566	348	225	180	258	500	160
15	749	290	*276	24	437	473	538	428	254	40	508	150
16	531	538	244	210	200	783	1,080	267	112	312	512	33
17	258	618	17	166	566	562	889	260	32	520	272	156
18	263	512	36	159	787	426	877	336	46	246	54	173
19	263	718	28	206	669	476	879	276	132	378	123	165
20	258	527	29	125	706	577	826	52	134	497	502	167
21	263	438	32	28	601	350	653	118	226	520	507	166
22	99	486	30	86	658	399	632	414	340	512	303	12
23	32	250	31	162	564	144	619	410	187	*680	248	16
24	258	196	29	125	422	340	562	228	135	668	336	170
25	258	214	25	148	479	351	109	233	223	672	500	185
26	263	62	201	130	510	321	188	72	198	516	299	208
27	267	159	311	130	470	358	381	37	42	569	334	177
28	267	268	222	30	490	206	258	316	70	200	232	168
29	267	254	306	124	496	460	76	230	145	144	35	21
30	267	447	306	146	-------	338	379	45	232	610	17	22
31	267	-------	512	142	-------	116	-------	356	-------	666	16	-------
Total	10,026	10,024	6,201	4,765	14,181	11,357	13,949	9,136	4,786	11,222	8,574	3,552
Mean	323	334	200	154	489	366	465	295	160	362	277	118
(†)	-5,486	-5,650	-1,391	-177	+3,758	+3,707	+5,350	+2,554	+1,615	-3,048	-5,054	-143

Adjusted for change in lake contents

Mean	146	146	155	148	619	486	643	377	213	264	114	114
Cfsm	1.02	1.02	1.08	1.03	4.33	3.40	4.50	2.64	1.49	1.85	0.797	0.797
In.	1.18	1.14	1.25	1.19	4.67	3.92	5.02	3.04	1.66	2.13	0.92	0.89

	Observed			Adjusted			
Calendar year 1955:	Max 2,310	Min 17	Mean 353	Mean 360	Cfsm 2.52	In. 34.21	
Water year 1955-56:	Max 1,080	Min 10	Mean 294	Mean 284	Cfsm 1.99	In. 27.01	

* Discharge measurement made on this day.
† Change in contents, in cfs-days, in Thorpe, Cedar Cliff, Bear Creek, and Tennessee Creek project lakes; furnished by Tennessee Valley Authority and Nantahala Power and Light Co.

Scott Creek above Sylva, N. C.

Location.--Lat 35°23'02", long 83°12'51", on right bank 800 ft downstream from Allens Branch, 3,500 ft upstream from Cope Creek, and 0.8 mile upstream from Sylva, Jackson County.

Drainage area.--50.7 sq mi.

Records available.--June 1941 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 2,056.42 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--15 years, 102 cfs.

Extremes.--Maximum discharge during year, 1,230 cfs July 2 (gage height, 5.25 ft); minimum, 23 cfs Jan. 9 (gage height, 1.68 ft), result of freezeup.
1941-56: Maximum discharge, 1,990 cfs Feb. 10, 1946; maximum gage height, 6.77 ft Feb. 21, 1953; minimum discharge, 8.0 cfs Sept. 22, 23, 1941 (gage height, 1.30 ft); minimum daily, 22 cfs Sept. 19, 29, 30, Oct. 4, 1954.
Maximum stage known, 8.6 ft Aug. 30, 1940, from floodmarks (discharge, 3,200 cfs, from rating curve extended above 1,800 cfs by logarithmic plotting).

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

Revisions (water years).--WSP 1053: 1942-44(M).

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 15, July 17 to Sept. 30				Apr. 16 to July 16			
1.7	25	2.4	133	1.9	54	2.7	220
1.8	35	2.7	207	2.0	68	3.0	316
2.0	61	3.0	303	2.2	100	3.5	502
2.2	94	3.5	500	2.4	142		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	30	43	43	69	146	117	138	*106	114	69	42
2	40	30	54	42	131	162	121	159	92	203	74	42
3	39	30	61	42	247	170	115	296	85	141	72	42
4	36	30	141	42	237	160	125	*226	83	127	72	50
5	36	30	105	40	194	146	115	184	82	*105	77	54
6	39	30	75	40	*306	142	*180	184	80	120	69	69
7	61	35	64	40	237	137	144	182	78	118	61	58
8	185	*32	61	b33	175	162	129	159	77	118	*60	46
9	53	31	69	b33	151	*131	125	147	83	161	60	42
10	42	40	54	39	133	127	121	140	78	118	60	40
11	*39	41	53	40	144	123	180	133	82	100	64	40
12	37	35	48	39	119	119	160	129	77	90	67	*40
13	40	33	*47	39	111	127	155	124	83	97	58	37
14	41	61	47	b32	105	270	153	120	82	114	57	36
15	37	48	47	b34	102	225	364	118	86	123	67	35
16	37	43	41	39	98	*373	461	112	77	144	57	35
17	36	60	45	b37	185	272	292	110	70	136	53	35
18	37	43	64	*36	207	237	247	106	82	104	50	36
19	39	67	53	55	191	204	220	100	88	145	53	35
20	36	50	48	46	283	183	200	98	78	121	51	34
21	35	45	46	40	207	170	182	95	74	111	64	34
22	35	42	45	40	175	160	171	93	72	96	50	33
23	35	67	45	58	155	151	161	93	70	102	46	34
24	35	60	46	66	155	148	154	100	70	91	45	50
25	35	58	47	53	231	135	147	95	70	102	43	97
26	35	64	45	48	188	129	140	92	76	94	43	248
27	35	53	43	46	191	125	133	92	68	87	42	82
28	35	48	42	47	183	121	129	92	60	77	45	63
29	51	42	46	51	155	165	127	117	116	77	46	55
30	32	42	50	98	-------	131	122	97	88	74	45	51
31	30	----	45	69	-------	123	-------	86	-------	72	45	-------
Total	1,360	1,320	1,720	1,407	5,065	5,174	5,190	4,017	2,413	3,482	1,765	1,595
Mean	43.9	44.0	55.5	45.4	175	167	173	130	80.4	112	56.9	53.2
Cfsm	0.866	0.868	1.09	0.895	3.45	3.29	3.41	2.56	1.59	2.21	1.12	1.05
In.	1.00	0.97	1.26	1.03	3.72	3.80	3.81	2.95	1.77	2.55	1.29	1.17

Calendar year 1955: Max 589 Min 30 Mean 84.0 Cfsm 1.66 In. 22.50
Water year 1955-56: Max 461 Min 30 Mean 94.3 Cfsm 1.86 In. 25.32

Peak discharge (base, 900 cfs).--Apr. 15 (10 p.m.) 1,080 cfs (4.90 ft); July 2 (5:30 p.m.) 1,230 cfs (5.25 ft).

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

Tuckasegee River at Dillsboro, N. C.

Location.--Lat 35°21'59", long 83°15'38", on left bank 0.4 mile downstream from Scott Creek and 0.5 mile downstream from U. S. Highway 23 at Dillsboro, Jackson County.

Drainage area.--347 sq mi.

Records available.--June 1928 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,950.15 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to May 24, 1934, staff gage at site below Scott Creek 0.4 mile upstream at datum 7.27 ft higher.

Average discharge.--28 years, 748 cfs (unadjusted).

Extremes.--Maximum discharge during year, 5,160 cfs Apr. 16 (gage height, 7.55 ft); minimum, 75 cfs Aug. 23 (gage height, 1.82 ft); minimum daily, 143 cfs Sept. 23.
1928-56: Maximum discharge, 52,600 cfs Aug. 30, 1940 (gage height, 21.96 ft, from floodmarks), from rating curve extended above 8,400 cfs on basis of slope-area determination and computation of peak flow over dam; minimum, 35 cfs Sept. 17, 1953 (gage height, 1.60 ft); minimum daily, 107 cfs Sept. 19, 1954.

Remarks.--Records excellent except those for period of no gage-height record, which are good. Considerable diurnal fluctuation caused by Dillsboro powerplant 0.7 mile above station. Flow partly regulated by Thorpe Lake, Cedar Cliff Lake, Bear Creek Lake, and Tennessee Creek project lakes (see p. 227,231).

Revisions (water years).--WSP 823: Drainage area. WSP 923: 1940(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

2.1	137	3.5	790
2.2	165	4.0	1,140
2.4	230	5.0	2,000
2.7	349	6.3	3,410
3.0	490		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	800	402	666	469	389	1,010	490	925	728	492	685	174
2	352	402	764	332	633	960	584	838	469	760	436	195
3	390	407	668	424	1,080	936	620	1,490	362	662	362	159
4	393	424	894	398	1,000	804	677	1,280	392	580	360	209
5	a550	402	939	298	989	692	498	859	494	*561	302	330
6	a400	402	360	294	1,440	738	1,270	998	446	702	332	369
7	a650	537	288	280	1,500	874	1,350	1,050	514	1,140	390	372
8	a800	*421	284	274	1,220	1,090	855	1,150	434	871	*686	290
9	a300	494	312	436	*1,040	*837	995	1,090	344	726	686	171
10	a800	556	336	350	898	630	*786	889	526	580	686	198
11	*a1,000	466	362	558	980	714	1,160	756	522	593	430	299
12	506	350	336	380	894	790	1,160	684	431	554	318	*304
13	416	298	422	364	845	612	995	751	485	526	554	303
14	422	494	445	254	764	1,490	934	760	516	684	686	293
15	604	487	*455	199	703	1,310	1,550	606	538	454	680	280
16	883	565	421	294	621	*2,120	3,380	780	478	584	680	270
17	508	789	282	354	1,050	1,710	2,110	653	370	1,040	588	177
18	407	688	260	*312	1,440	1,340	1,780	658	321	604	220	296
19	416	867	256	390	1,310	1,260	1,690	710	336	757	246	287
20	407	756	230	374	1,710	1,200	1,540	489	546	859	584	286
21	402	502	206	206	1,230	1,160	1,360	502	402	866	692	289
22	407	746	213	193	1,280	881	1,280	618	628	830	541	243
23	256	428	199	394	1,080	834	1,230	750	536	936	407	143
24	174	496	213	390	962	786	1,200	670	478	950	415	214
25	385	378	220	352	1,200	964	781	*686	478	974	636	404
26	398	394	236	316	1,140	717	728	442	524	847	530	884
27	394	252	534	304	1,100	854	782	405	418	837	402	422
28	398	437	433	223	1,150	747	900	544	282	532	514	362
29	465	426	402	309	1,060	1,010	578	646	368	404	250	306
30	412	490	487	416	-------	748	744	500	534	732	196	174
31	402	---	534	389	-------	695	-------	521	-------	893	180	---
Total	15,096	14,756	12,637	10,526	30,708	30,513	34,007	23,898	13,900	22,530	14,654	8,703
Mean	487	492	408	340	1,059	984	1,134	771	463	727	473	290
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 3,250 Min 174 Mean 660 Cfsm 1.90 In. 25.83
Water year 1955-56: Max 3,380 Min 143 Mean 634 Cfsm 1.83 In. 24.86

Peak discharge (base, 4,500 cfs).--Apr. 16 (2 a.m.) 5,160 cfs (7.55 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage and records for stations at Bryson City and at Tuckasegee.

Oconaluftee River at Birdtown, N. C.

Location.--Lat 35°27'42", long 83°21'13", on right bank 200 ft upstream from county bridge, 0.5 mile south of Birdtown, Swain County, 0.6 mile downstream from Adams Creek, 0.6 mile upstream from Goose Creek, and 2.2 miles southwest of Cherokee.

Drainage area.--184 sq mi.

Records available.--July 1945 to September 1946, July 1948 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,843.30 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. July 10, 1945, to Sept. 30, 1946, staff gage at same site and datum.

Average discharge.--9 years, 497 cfs.

Extremes.--Maximum discharge during year, 8,360 cfs Apr. 16 (gage height, 8.18 ft); minimum, 122 cfs Sept. 22, 23 (gage height, 0.83 ft).
1945-46, 1948-56: Maximum discharge, 15,000 cfs Jan. 7, 1946 (gage height, 12.0 ft, from floodmarks), from rating curve extended above 8,300 cfs on basis of computation of peak flow over dam; minimum, 80 cfs Oct. 19, 1954 (gage height, 0.66 ft).

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

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-7, Apr. 16 to Sept. 30				Oct. 8 to Apr. 15			
0.8	114	3.0	1,400	0.9	125	2.0	638
1.0	172	4.0	2,400	1.0	155	3.0	1,400
1.2	239	5.0	3,580	1.2	230	4.0	2,400
1.5	365	6.0	4,950	1.5	358	5.0	3,580
2.0	640						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	436	143	b230	b230	448	756	619	487	504	262	255	172
2	228	143	250	234	1,020	784	626	540	545	262	243	198
3	185	140	313	226	2,780	805	601	1,070	444	266	236	163
4	166	137	746	222	2,010	855	626	1,050	379	270	228	243
5	157	131	765	210	1,460	756	570	749	352	312	232	232
6	157	131	528	210	*2,380	728	1,180	682	329	403	*225	*309
7	241	155	438	206	2,000	714	1,060	735	316	515	208	439
8	1,660	143	*396	b175	1,310	1,110	855	728	299	423	198	247
9	499	131	401	b175	1,020	805	756	634	324	509	194	204
10	340	146	336	b200	826	721	*688	586	338	429	188	182
11	284	166	318	*194	855	675	806	550	*312	338	206	172
12	246	143	296	186	721	632	721	514	307	*295	255	166
13	230	146	b270	180	638	657	694	498	299	417	204	157
14	*226	253	b260	b165	588	*1,880	681	482	307	1,040	185	148
15	206	246	263	b170	576	1,590	2,280	*470	291	756	178	145
16	198	*202	b235	176	558	2,340	3,880	444	270	707	172	139
17	183	428	b250	b160	1,010	1,900	1,840	418	266	1,210	166	136
18	186	271	309	169	1,700	1,480	1,380	403	255	721	163	151
19	198	354	300	234	1,260	1,200	1,130	389	258	580	185	136
20	183	305	259	218	1,370	1,010	968	375	356	562	291	131
21	176	263	246	172	1,100	878	855	365	274	487	291	125
22	169	238	238	172	930	805	784	356	266	429	211	125
23	166	348	234	222	805	735	714	356	266	439	182	125
24	158	344	246	322	805	721	658	384	278	394	169	194
25	149	313	279	242	1,400	644	616	365	295	423	163	219
26	149	363	275	218	1,320	619	580	347	258	365	160	573
27	146	305	250	206	1,100	607	550	342	258	334	160	262
28	146	279	234	206	990	582	520	338	228	303	178	225
29	218	b240	238	234	840	949	498	329	218	282	182	198
30	166	b220	279	744	------	763	482	329	251	270	163	178
31	149		263	558	------	675	------	334	------	258	214	------
Total	8,001	6,827	9,945	7,236	33,820	29,376	28,218	15,649	9,343	14,261	6,285	6,094
Mean	258	228	321	233	1,166	948	941	505	311	460	203	203
Cfsm	1.40	1.24	1.74	1.27	6.34	5.15	5.11	2.74	1.69	2.50	1.10	1.10
In.	1.62	1.38	2.01	1.46	6.84	5.94	5.70	3.16	1.89	2.88	1.27	1.23

Calendar year 1955: Max 3,890 Min 114 Mean 463 Cfsm 2.52 In. 34.17
Water year 1955-56: Max 3,880 Min 125 Mean 478 Cfsm 2.60 In. 35.38

Peak discharge (base, 4,000 cfs).--Apr. 16 (12:15 a.m.) 8,360 cfs (8.18 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Tuckasegee River at Bryson City, N. C.

Location.--Lat 35°25'40", long 83°26'50", on left bank 400 ft downstream from bridge on State Highway 288 at Bryson City, Swain County, and 0.6 mile downstream from Deep Creek.

Drainage area.--655 sq mi.

Records available.--November 1897 to September 1956 in reports of Geological Survey. Records prior to October 1913 revised in Tennessee Division of Geology Bulletin 34 and North Carolina Department of Conservation and Development Bulletin 34.

Gage.--Water-stage recorder. Datum of gage is 1,716.54 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Nov. 7, 1897, to Feb. 2, 1914, and May 18, 1920, to June 27, 1927, staff gages at bridge 400 ft upstream at same datum. Feb. 3, 1914, to May 17, 1920, water-stage recorder at site 200 ft upstream at same datum.

Average discharge.--58 years (1898-1956), 1,563 cfs (unadjusted).

Extremes.--Maximum discharge during year, 14,400 cfs Apr. 16 (gage height, 7.09 ft); minimum, 252 cfs Oct. 24 (gage height, 0.65 ft); minimum daily, 300 cfs Sept. 23.
1897-1956: Maximum discharge, 61,600 cfs Aug. 30, 1940 (gage height, 15.96 ft), from rating curve extended above 25,000 cfs on basis of logarithmic plotting and slope-area determination of peak flow; minimum, 27 cfs Sept. 10, 1925; minimum gage height, 0.47 ft Oct. 26, 1952; minimum daily discharge, 31 cfs Sept. 9, 10, 1925, caused by filling reservoir on Oconaluftee River; minimum daily during normal regulation, 186 cfs Oct. 13, 1925.
Flood in May 1840 reached a stage of 21 ft, from survey by Tennessee Valley Authority.

Remarks.--Records excellent. Considerable diurnal fluctuation caused by powerplants above station. Flow regulated by Thorpe Lake, Cedar Cliff Lake, Bear Creek Lake, Tennessee Creek project lakes (see p. 227,231) and two small reservoirs with combined capacity of about 250 cfs-days.

Revisions (water years).--WSP 523: 1916, 1918-20. WSP 823: Drainage area. WSP 1336: 1899(M), 1907, 1915(M), 1916-20, 1921-29(M), 1933-34(M). See also Records Available.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.7	285	3.0	3,590
1.0	530	4.0	5,710
1.5	1,120	5.0	8,180
2.0	1,830	6.0	11,000

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,330	596	948	946	986	2,220	1,420	1,760	1,420	897	1,190	384
2	790	592	1,100	622	1,890	2,220	1,430	1,660	1,270	978	784	449
3	596	595	1,100	764	4,990	2,180	1,500	3,100	1,010	1,110	675	376
4	616	581	1,800	608	3,950	2,230	1,610	2,920	859	991	625	476
5	656	606	2,150	660	3,240	1,910	1,370	2,140	880	1,000	596	583
6	678	572	1,190	570	4,530	1,820	2,770	2,020	938	1,060	*549	*650
7	890	740	928	556	4,450	1,990	2,960	2,210	884	2,040	558	956
8	3,250	706	814	504	3,190	2,690	2,140	2,310	868	1,590	928	648
9	1,180	642	863	502	2,520	2,020	2,040	2,130	782	1,410	928	424
10	872	657	745	702	2,120	1,770	1,870	1,850	962	1,360	900	384
11	1,290	837	794	745	2,300	1,680	2,250	1,520	*918	970	790	497
12	964	541	632	750	1,950	1,800	2,290	1,620	852	1,070	664	501
13	720	452	785	535	1,820	1,620	2,030	1,420	884	1,040	676	488
14	720	678	*792	564	1,750	*3,970	1,940	1,520	932	1,850	928	469
15	738	898	802	459	1,500	3,630	4,160	1,510	948	1,450	902	461
16	1,160	760	754	432	*1,590	5,400	9,080	1,480	917	1,320	915	455
17	870	1,320	646	580	2,350	4,550	*4,980	1,260	727	2,460	876	315
18	656	1,110	670	560	3,900	3,560	3,910	1,260	630	1,560	512	464
19	678	1,270	665	654	3,270	3,030	3,450	1,310	646	1,370	445	447
20	646	1,210	587	724	3,830	2,670	3,030	1,160	972	1,600	834	435
21	625	910	549	541	2,920	2,580	2,730	996	749	1,500	1,130	434
22	616	1,090	540	424	2,740	2,020	2,480	*1,040	926	1,400	926	426
23	549	940	540	590	2,340	2,030	2,340	1,280	1,000	1,490	662	300
24	385	1,040	540	*882	2,250	1,760	2,230	1,270	836	1,500	522	423
25	504	768	578	702	3,120	2,020	1,820	1,150	876	1,550	826	548
26	596	951	587	640	3,200	1,600	1,640	1,040	874	1 90	740	1,720
27	587	628	750	593	2,750	1,770	1,580	892	829	*1,280	610	823
28	596	744	778	586	2,720	1,590	1,770	897	596	1,110	808	666
29	747	*744	702	573	2,350	2,310	1,400	1,150	626	770	503	576
30	626	684	838	1,310	------	1,850	1,420	1,090	872	862	400	408
31	*598	- --	866	1,200	---- -	1,730	-------	872	-- ----	1,260	432	- --
Total	25,729	23,862	26,033	20,458	80,516	74,220	75,640	47,837	26,483	41,228	22,834	16,186
Mean	830	795	840	660	2,776	2,394	2,521	1,543	883	1,330	737	540
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 7,650 Min 372 Mean 1,328 Cfsm 2.03 In. 27.52
Water year 1955-56: Max 9,080 Min 300 Mean 1,314 Cfsm 2.01 In. 27.31

Peak discharge (base, 9,000 cfs).--Apr. 16 (2 a.m.) 14,400 cfs (7.09 ft).
* Discharge measurement made on this day.

Noland Creek near Bryson City, N. C.

Location.--Lat 35°29'06", long 83°30'15", on right bank in Great Smoky Mountain National Park, 1.1 miles downstream from Mill Creek, 3.6 miles upstream from Fontana Lake, and 5 miles northwest of Bryson City, Swain County.

Drainage area.--13.8 sq mi.

Records available.--October 1935 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 2,280 ft (from topographic map).

Average discharge.--21 years, 43.9 cfs.

Extremes.--Maximum discharge during year, 614 cfs Apr. 15 (gage height, 3.59 ft); minimum, 7.4 cfs Sept. 20, 21, 22, 23 (gage height, 0.85 ft).
1935-56: Maximum discharge, 1,530 cfs Aug. 30, 1940 (gage height, 4.87 ft), from rating curve extended above 540 cfs on basis of critical-depth determination of peak flow; minimum, 3.5 cfs Oct. 24, 1939 (gage height, 0.66 ft).

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

Revisions (water years).--WSP 823: Drainage area. WSP 893: 1936, 1937-39(M).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	6.1	1.8	67
.9	8.7	2.0	92
1.0	12	2.3	143
1.2	21	2.6	210
1.4	33	3.0	337
1.6	48		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	13	24	23	43	84	59	46	39	32	20	10
2	18	13	26	23	144	89	60	53	29	25	18	11
3	16	14	34	23	*337	87	55	139	27	23	18	9.4
4	14	*13	97	22	237	83	64	101	25	24	18	11
5	14	13	73	21	164	77	56	78	25	28	17	17
6	15	13	55	21	240	78	136	79	24	42	16	24
7	82	15	48	20	186	79	100	98	23	49	15	20
8	149	13	*43	b18	137	107	84	89	22	55	15	13
9	40	12	41	b18	109	77	*75	77	26	66	14	11
10	30	14	36	18	89	72	69	71	29	53	14	10
11	25	14	33	*19	98	67	77	65	25	43	15	10
12	22	13	31	19	77	64	66	60	25	36	16	10
13	21	15	29	18	68	72	62	56	25	a40	13	9.7
14	*20	30	28	b17	64	*219	60	52	24	a50	*13	9.0
15	19	22	27	18	63	164	233	49	29	a45	12	9.0
16	18	22	b24	18	61	237	295	46	24	a40	12	8.7
17	17	36	b24	b16	138	191	173	44	26	a45	12	8.7
18	18	23	34	17	182	151	134	*42	22	a41	11	9.7
19	18	34	29	23	137	121	106	39	22	a37	11	*8.7
20	16	27	26	20	143	101	91	38	22	a35	13	8.4
21	16	24	25	18	117	89	82	36	23	a33	20	7.9
22	15	23	25	17	100	79	74	34	25	a31	12	7.9
23	15	49	25	23	88	72	67	34	24	a31	11	8.5
24	14	41	25	27	89	71	62	36	23	a30	11	17
25	14	39	27	23	175	63	58	32	37	a33	11	12
26	14	39	26	21	139	60	54	31	*25	a30	10	22
27	13	34	24	20	124	56	52	30	23	a26	10	11
28	13	31	23	21	110	54	50	29	20	a23	11	10
29	20	b25	26	25	92	101	47	30	20	a21	11	9.7
30	14	b24	27	74	------	68	45	31	37	*20	12	9.0
31	14	-- -	24	47	-------	62	-- -----	27	--------	20	12	-
Total	768	698	1,039	708	3,751	2,995	2,646	1,672	770	1,107	424	343.3
Mean	24.8	23.3	33.5	22.8	129	96.6	88.2	53.9	25.7	35.7	13.7	11.4
Cfsm	1.80	1.69	2.43	1.65	9.35	7.00	6.39	3.91	1.86	2.59	0.993	0.826
In.	2.07	1.88	2.80	1.91	10.11	8.07	7.13	4.51	2.08	2.98	1.14	0.93

Calendar year 1955: Max 380 Min 9.0 Mean 47.0 Cfsm 3.41 In. 46.20
Water year 1955-56: Max 337 Min 7.9 Mean 46.2 Cfsm 3.35 In. 45.61

Peak discharge (base, 600 cfs).--Apr. 15 (9 p.m.) 614 cfs (3.59 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 Oconaluftee River at Birdtown.
b Stage-discharge relation affected by ice.

Little Tennessee River at Calderwood, Tenn.

Location.--Lat 35°30'24", long 84°00'14", on right bank 250 ft downstream from Scona Lodge Ferry, two-thirds of a mile west of Calderwood, Blount County, 2½ miles downstream from Calderwood Dam, and at mile 41.1.

Drainage area.--1,862 sq mi.

Records available.--January 1912 to December 1918, January 1921 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 861.41 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 1, 1927, staff gages and water-stage recorders at several sites within 1 mile of present site at various datums.

Average discharge.--40 years (1912-18, 1922-56), 4,270 cfs (unadjusted).

Extremes.--Maximum discharge during year, 12,000 cfs June 11 (gage height, 3.71 ft); minimum, 36 cfs Sept. 8 (gage height, -0.53 ft); minimum daily, 281 cfs Dec. 3.
1912-18, 1921-56: Maximum discharge, 82,000 cfs Mar. 4, 1917; maximum gage height observed, 11.75 ft Mar. 4, 1917, before breaking of levee near gage; minimum discharge, 7.2 cfs Sept. 4, 1955 (gage height, -0.66 ft); minimum daily, 102 cfs Aug. 31, 1947.

Remarks.--Records good except those for period of no gage-height record, which are fair. Flow regulated by several reservoirs above station (see p. 226).

Cooperation.--Water-stage recorder inspected by employee of Aluminum Co. of America.

Revisions (water years).--WSP 803: 1933-35. WSP 823: 1917(M), drainage area. WSP 923: 1930. WSP 1336: 1912, 1916, 1926.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

-0.1	245	1.0	1,630
.1	400	1.5	2,930
.4	680	2.0	4,670
.7	1,080	2.7	7,430

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,540	5,470	6,800	1,410	1,230	*4,640	1,180	2,470	2,700	1,370	4,000	2,140
2	2,460	4,820	5,670	3,690	1,530	3,510	2,410	2,780	3,580	3,460	3,480	1,160
3	5,610	5,270	281	3,250	3,340	2,150	2,460	3,750	2,280	3,060	2,930	4,280
4	5,220	6,400	619	5,150	3,140	1,800	2,080	2,290	3,900	1,380	2,460	4,020
5	*3,320	5,980	5,790	*5,350	1,230	3,180	3,640	3,590	3,660	2,940	2,490	*5,320
6	6,010	4,000	4,730	3,760	1,650	2,240	1,680	1,830	*3,400	2,900	3,360	7,200
7	5,400	6,200	3,870	3,800	1,480	4,020	1,230	*2,810	3,710	1,460	2,940	1,550
8	4,330	5,950	4,030	3,490	a1,200	5,760	2,090	2,920	2,720	1,170	4,090	*1,170
9	2,800	5,850	4,990	4,620	a1,550	4,960	4,570	3,020	1,480	2,230	4,160	2,710
10	4,320	5,500	5,110	4,660	a2,200	3,890	4,840	4,450	1,520	*1,840	3,610	4,660
11	4,070	4,380	5,280	3,880	a2,500	2,260	5,210	3,790	4,760	1,160	2,430	4,380
12	4,440	2,530	6,990	2,660	a1,750	3,260	3,940	2,470	2,450	2,030	1,480	4,920
13	4,880	2,940	7,110	3,610	a3,150	4,110	1,690	2,590	1,950	1,720	2,880	4,820
14	5,650	3,660	6,520	2,550	a2,000	3,110	2,320	3,920	2,840	2,780	*2,990	4,880
15	3,760	3,620	6,190	1,310	a1,650	4,190	2,250	4,820	1,960	4,210	2,960	4,340
16	4,330	4,810	7,220	2,270	a1,400	5,280	4,110	4,260	1,160	4,740	3,320	3,460
17	6,430	5,200	5,300	3,260	1,440	3,230	1,290	4,410	1,160	3,940	3,320	4,340
18	6,200	5,680	4,480	3,440	2,110	2,460	1,230	3,200	4,260	3,720	1,970	4,770
19	6,720	5,320	4,140	2,320	1,410	2,660	1,200	1,570	4,220	4,260	2,370	5,620
20	5,420	4,450	7,060	2,310	1,390	2,500	1,200	2,020	4,280	2,980	3,720	5,220
21	4,460	6,130	6,050	1,220	2,320	1,900	1,180	4,360	3,750	3,640	2,870	5,180
22	4,120	5,760	6,070	1,770	2,470	1,380	1,180	4,580	3,820	1,410	3,300	4,780
23	2,740	4,740	2,920	2,630	2,450	1,620	1,900	4,630	3,050	3,720	4,730	1,520
24	3,570	2,040	1,160	2,900	1,320	2,040	1,600	5,170	1,430	3,180	3,790	5,150
25	6,380	2,560	1,470	2,200	1,220	1,770	1,290	4,480	4,070	3,280	3,440	5,560
26	6,010	2,460	2,510	2,520	1,110	1,940	1,250	3,530	4,170	3,940	1,490	6,110
27	6,420	2,770	5,270	1,460	1,160	1,640	1,150	1,950	4,060	3,790	2,130	6,520
28	7,130	6,700	4,440	2,020	2,660	1,270	1,160	4,310	4,470	3,990	4,070	6,240
29	4,670	6,400	4,980	1,250	4,120	1,730	1,200	4,440	4,140	2,770	4,250	6,400
30	2,950	5,770	6,120	1,540	-------	2,250	2,860	2,670	1,180	4,380	4,120	3,760
31	5,440	-------	5,300	1,230	-------	2,820	-------	2,560	-------	4,630	4,680	-------
Total	147,800	146,360	148,470	87,530	56,180	89,570	65,390	105,640	92,130	92,080	99,810	132,180
Mean	4,768	4,879	4,789	2,824	1,937	2,889	2,180	3,408	3,071	2,970	3,220	4,406

	Observed				Adjusted†			
Calendar year 1955:	Max	7,220	Min	281	Mean	3,942	Mean	3,963 Cfsm 2.13 In. 28.89
Water year 1955-56:	Max	7,220	Min	281	Mean	3,451	Mean	4,015 Cfsm 2.16 In. 29.35

* Discharge measurement made on this day.
† Adjusted for change in contents in Fontana, Cheoah, Calderwood, Nantahala, Thorpe, and Santeetlah Lakes.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, records for station at McGhee and Calderwood Dam releases.

Tellico River at Tellico Plains, Tenn.

Location.--Lat 35°21'42", long 84°16'44", on right bank 200 ft upstream from bridge on Tellico Plains-Rafter Road, 0.4 mile downstream from Laurel Creek, 0.8 mile east of Tellico Plains, Monroe County, and at mile 28.2.

Drainage area.--118 sq mi.

Records available.--July 1925 to September 1956. Published as "near Tellico Plains" October 1927 to September 1930.

Gage.--Water-stage recorder. Datum of gage is 846.64 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. July 20, 1925, to Sept. 30, 1927, staff gage at same site and datum. Oct. 1, 1927, to Sept. 30, 1930, staff gage at site half a mile upstream at datum 8.29 ft higher.

Average discharge.--31 years, 278 cfs.

Extremes.--Maximum discharge during year, 6,500 cfs Apr. 15 (gage height, 9.62 ft); minimum, 36 cfs Sept. 23 (gage height, 1.01 ft).
1925-56: Maximum discharge, 15,100 cfs Mar. 29, 1951 (gage height, 12.82 ft), from rating curve extended above 6,500 cfs; minimum, 13 cfs Sept. 7, 1925 (gage height, 0.25 ft).

Remarks.--Records good.

Revisions (water years).--WSP 1336: 1927-28(M), 1936, 1940, 1944.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.0	32	3.0	705
1.2	60	4.0	1,240
1.5	123	6.0	2,400
2.0	268	7.5	3,440
2.5	465		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	69	145	145	332	400	306	236	*274	73	84	55
2	71	*67	*145	142	*786	*488	*288	*233	172	*97	*82	95
3	*62	69	183	*136	3,420	478	271	607	145	123	82	57
4	55	71	440	131	1,520	496	329	755	131	93	74	*49
5	52	65	465	123	1,050	442	278	433	123	153	73	47
6	49	65	317	121	2,020	416	732	360	118	150	76	90
7	234	80	252	118	1,390	388	650	580	113	166	67	170
8	950	82	218	111	800	619	460	488	106	106	60	71
9	212	69	233	106	635	510	380	396	104	147	58	57
10	136	78	192	109	501	447	344	348	106	113	55	49
11	111	95	177	116	519	408	404	313	104	86	57	46
12	95	78	166	106	442	376	372	285	128	76	95	44
13	86	76	169	101	408	420	336	268	139	147	60	43
14	91	142	155	95	372	1,390	317	252	166	147	55	42
15	84	186	147	97	372	1,090	1,600	236	121	163	52	40
16	80	150	131	97	352	1,290	*2,290	227	106	302	50	38
17	76	292	150	91	986	986	882	209	101	236	47	42
18	86	183	194	93	1,420	740	630	197	95	147	50	69
19	118	227	200	145	904	595	510	186	93	111	116	47
20	86	203	172	145	1,050	506	442	180	88	99	58	40
21	78	166	164	116	838	452	392	172	91	104	138	38
22	74	142	158	111	645	412	368	164	95	88	74	37
23	71	294	150	150	537	380	340	158	106	86	58	37
24	67	325	150	295	532	392	313	169	134	159	52	60
25	65	246	145	230	595	348	292	161	113	424	49	57
26	64	246	136	200	555	325	282	150	95	197	47	60
27	64	203	131	177	524	310	268	147	84	142	46	47
28	64	177	123	180	510	295	252	145	76	116	57	43
29	134	153	131	206	433	478	242	150	73	104	76	42
30	86	145	177	478	------	388	233	145	69	95	55	40
31	73	--	164	429	------	340	------	134	------	88	49	------
Total	3,678	4,444	5,880	4,900	24,448	16,605	14,803	8,484	3,469	4,338	2,052	1,652
Mean	119	148	190	158	843	536	493	274	116	140	66.2	55.1
Cfsm	1.01	1.25	1.61	1.34	7.14	4.54	4.18	2.32	0.983	1.19	0.561	0.467
In.	1.16	1.40	1.85	1.54	7.71	5.23	4.67	2.67	1.09	1.37	0.65	0.52

Calendar year 1955: Max 2,550 Min 36 Mean 240 Cfsm 2.03 In. 27.56
Water year 1955-56: Max 3,420 Min 37 Mean 259 Cfsm 2.19 In. 29.86

Peak discharge (base, 2,800 cfs).--Oct. 7 (12 p.m.) 3,220 cfs (7.23 ft); Feb. 3 (1:30 p.m.) 6,020 cfs (9.38 ft); Mar. 14 (12 m.) 3,260 cfs (7.27 ft); Apr. 15 (10 p.m.) 6,500 cfs (9.62 ft).
* Discharge measurement made on this day.

Little Tennessee River at McGhee, Tenn.

Location.--Lat 35°36'16", long 84°12'43", on right bank at mouth of Tellico River, 100 ft upstream from bridge on U. S. Highway 411, 0.3 mile upstream from Louisville & Nashville Railroad bridge, and 0.5 mile south of McGhee, Monroe County. Records include flow of Tellico River.

Drainage area.--2,443 sq mi, includes that of Tellico River.

Records available.--January 1905 to December 1913 (gage heights only, October to December 1913) and October 1918 to September 1956 in reports of Geological Survey. November 1904 to September 1924 (most records prior to 1919, revised) in Tennessee Division of Geology Bulletin 34.

Gage.--Water-stage recorder. Datum of gage is 760.18 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Sept. 6, 1929, chain or staff gages located at various sites and datums within 0.4 mile of present site.

Average discharge.--51 years (1905-56), 5,619 cfs (unadjusted).

Extremes.--Maximum discharge during year, 20,900 cfs Feb. 3 (gage height, 11.58 ft); minimum, 480 cfs Sept. 9 (gage height, 2.62 ft); minimum daily, 1,050 cfs Dec. 4.

1904-56: Maximum discharge, 104,000 cfs Nov. 19, 1906 (gage height, 30.8 ft, at site used December 1905 to September 1925, to datum used October 1918 to September 1925), from rating curve extended above 66,000 cfs; minimum, 273 cfs Oct. 27, 1941; minimum daily, 500 cfs Sept. 13, 14, 1925.

Maximum stage known, 39.0 ft in March 1867, original site and datum.

Remarks.--Records good. Flow regulated by many reservoirs above station.

Revisions (water years).--WSP 803: 1933-35. WSP 823: Drainage area. WSP 1336: 1905, 1906-10(M), 1911, 1912(M), 1913, 1914(M), 1915-22, 1923-24(M), 1925-29. See also Records available.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 3		Feb. 4 to Sept. 30	
3.2	980	3.2	1,070
3.5	1,350	3.5	1,490
4.0	2,150	4.0	2,330
5.0	4,230	5.0	4,380
7.0	9,040	7.0	9,150
10.0	16,800	10.4	17,800

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,060	4,970	6,340	2,870	2,490	*5,430	2,610	3,300	3,290	1,430	4,370	3,160
2	3,080	*4,570	6,620	2,830	*3,840	5,120	2,980	3,020	3,310	2,750	3,500	1,640
3	4,210	5,390	2,380	3,170	16,000	4,020	3,200	4,960	3,730	3,520	3,050	2,700
4	5,480	5,820	1,050	5,070	14,700	3,990	*2,860	5,730	3,480	2,250	2,860	4,390
5	*3,620	6,160	5,460	*5,520	8,740	4,380	4,040	4,730	3,810	2,390	2,370	*4,440
6	4,990	4,180	*5,960	4,240	8,130	3,580	4,660	3,480	*3,740	3,500	3,300	7,080
7	5,830	5,220	4,530	3,690	9,820	4,910	4,380	*3,400	3,360	2,200	3,130	4,160
8	6,170	5,940	4,280	3,570	5,510	7,200	3,370	4,490	3,390	1,690	3,420	*1,110
9	3,630	5,460	5,140	4,400	3,790	7,220	5,150	4,050	2,190	2,050	4,720	2,360
10	3,610	5,620	5,440	4,400	4,290	5,980	5,760	4,240	1,790	*2,350	3,400	3,080
11	4,220	4,860	5,300	4,210	4,080	4,200	6,480	5,030	4,220	1,880	3,000	4,490
12	4,140	2,920	6,990	2,850	3,820	3,920	5,850	3,420	3,310	1,400	1,780	4,540
13	4,460	2,510	7,500	3,480	4,340	4,960	3,610	3,580	2,520	2,580	2,430	4,920
14	5,270	3,720	6,950	3,560	3,480	5,720	3,020	3,970	2,710	1,980	*2,930	4,690
15	4,280	3,960	6,120	1,580	2,680	8,470	4,870	5,450	2,220	4,280	2,880	4,250
16	3,690	4,260	7,180	1,840	2,560	11,000	*17,700	4,790	2,040	4,990	3,200	3,720
17	5,430	6,030	5,550	2,840	5,950	9,090	8,320	5,120	1,440	4,690	3,410	4,050
18	6,040	6,020	5,170	3,260	10,700	5,720	3,860	3,760	3,000	4,360	2,420	4,770
19	6,570	5,800	4,410	2,740	6,940	4,640	3,050	2,720	4,680	4,000	2,360	5,470
20	5,660	5,050	6,940	2,770	4,860	4,320	2,680	2,070	4,060	3,110	3,020	5,190
21	4,660	6,220	6,440	1,880	5,590	3,320	2,400	4,000	4,460	4,200	3,300	4,850
22	3,940	6,100	6,470	1,810	5,050	2,740	2,290	4,880	3,760	2,090	3,440	5,310
23	2,660	5,040	3,960	2,570	4,250	2,570	2,810	4,980	4,270	2,920	4,040	2,310
24	3,170	3,710	2,380	3,690	3,280	2,540	2,470	5,670	1,610	3,730	3,310	3,650
25	5,480	4,950	1,640	3,390	2,850	3,320	2,330	4,780	3,180	3,640	3,790	5,490
26	5,980	4,100	1,840	2,750	2,790	2,610	2,060	3,860	4,340	3,860	2,460	5,800
27	6,090	2,740	5,150	2,480	2,580	2,530	1,860	3,490	4,440	4,010	2,520	6,380
28	6,900	5,960	4,080	2,230	3,400	2,190	1,840	3,300	4,420	4,090	3,480	6,240
29	5,370	6,770	4,850	1,900	5,500	3,210	1,830	4,680	4,390	3,720	4,420	6,360
30	3,030	6,300	5,940	3,220	-------	3,630	2,830	3,620	2,550	3,840	4,020	4,330
31	5,000	-------	5,890	3,820	-------	3,650	-------	2,900	-------	4,670	4,280	-------
Total	145,720	150,350	157,950	98,630	162,010	146,180	121,170	127,470	99,710	98,170	100,610	130,930
Mean	4,701	5,012	5,095	3,182	5,587	4,715	4,039	4,112	3,324	3,167	3,245	4,364

		Observed				Adjusted†				
Calendar year 1955:	Max	19,000	Min	574	Mean	4,621	Mean	4,642	Cfsm	1.90	In.	25.79
Water year 1955-56:	Max	17,700	Min	1,050	Mean	4,205	Mean	4,769	Cfsm	1.95	In.	26.57

* Discharge measurement made on this day.

† Adjusted for change in contents in Santeetlah, Fontana, Nantahala, Thorpe, Cheoah and Calderwood Lakes.

Clinch River at Richlands, Va.

Location.--Lat 37°05'10", long 81°46'52", on right bank 1 mile southeast of Richlands, Tazewell County, 1.6 miles downstream from Middle Creek, and 2.2 miles upstream from Big Creek.

Drainage area.--139 sq mi.

Records available.--January 1946 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,923.99 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Aug. 6, 1950, wire-weight gage at bridge 1.1 miles downstream at datum 6.53 ft lower.

Average discharge.--10 years, 180 cfs.

Extremes.--Maximum discharge during year, 3,650 cfs Apr. 16 (gage height, 10.54 ft); minimum, 5.0 cfs Nov. 1 (gage height, 0.57 ft); minimum daily, 12 cfs Oct. 26.
1946-56: Maximum discharge, 5,080 cfs May 19, 1953 (gage height, 13.23 ft); minimum, 3.2 cfs Sept. 8, 1955; minimum gage height, 0.45 ft July 2, 3, 1951; minimum daily discharge, 9.0 cfs Sept. 5, 1955.

Remarks.--Records good except those for periods of ice effect, which are fair. Diurnal fluctuation at low flow caused by mill above station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	10	3.0	488
.7	18	5.0	1,150
1.0	60	7.0	2,000
2.0	237	10.0	3,400

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	*19	b30	b40	279	279	291	180	222	41	*83	41
2	17	17	35	b41	245	257	*249	198	202	39	70	44
3	*15	18	41	*44	754	245	279	780	159	41	66	42
4	24	17	51	39	920	315	253	675	*128	44	56	*35
5	22	16	*86	37	735	*291	216	407	108	44	51	37
6	22	16	73	34	675	257	263	303	95	50	46	56
7	20	18	57	31	1,070	270	516	249	84	50	44	93
8	63	17	48	b30	586	1,110	448	*218	76	65	45	65
9	51	26	52	b29	*380	765	353	187	71	*90	41	46
10	28	24	51	b28	268	488	315	171	66	81	35	41
11	31	30	b45	b29	237	353	407	159	62	66	35	37
12	21	38	b43	b29	218	291	735	150	57	52	34	34
13	25	37	b40	b27	193	380	530	141	54	56	32	31
14	21	34	b40	b27	178	883	420	137	54	66	37	27
15	26	46	b38	b27	213	885	1,280	220	68	62	35	35
16	19	50	b36	b26	224	615	3,000	279	66	63	31	34
17	19	79	b36	b26	453	516	1,430	228	73	195	30	31
18	30	66	b37	b25	1,470	502	815	202	68	141	68	41
19	24	79	b40	38	1,070	586	558	171	63	84	130	34
20	24	112	b43	63	1,430	488	420	162	62	74	139	31
21	26	83	b44	66	885	407	315	142	91	68	235	28
22	21	62	b45	88	544	340	270	130	155	57	141	28
23	19	51	45	57	380	291	249	121	115	50	84	26
24	15	46	44	46	315	291	224	117	105	54	63	35
25	24	42	50	45	502	277	202	110	78	76	51	41
26	12	38	48	51	645	259	184	103	65	126	46	31
27	14	b35	48	b48	474	237	173	103	57	132	42	342
28	16	b31	52	b45	461	214	159	114	51	95	41	303
29	18	b29	42	288	340	500	150	121	45	238	41	159
30	21	b25	b41	885	------	544	144	124	42	150	38	108
31	22	--	b44	558	-------	380	-------	119	--- ----	102	39	- -
Total	738	1,201	1,425	2,847	16,144	13,516	14,848	6,521	2,642	2,558	1,929	1,936
Mean	23.8	40.0	46.0	91.8	557	436	495	210	88.1	82.5	62.2	64.5
Cfsm	0.171	0.288	0.331	0.660	4.01	3.14	3.56	1.51	0.634	0.594	0.447	0.464
In.	0.20	0.32	0.38	0.76	4.32	3.62	3.97	1.74	0.71	0.68	0.52	0.52

Calendar year 1955: Max 3,550 Min 9.0 Mean 217 Cfsm 1.56 In. 21.24
Water year 1955-56: Max 3,000 Min 12 Mean 181 Cfsm 1.30 In. 17.74

Peak discharge (base, 1,300 cfs).--Feb. 18 (6 to 7 p.m.) 1,860 cfs (6.67 ft); Mar. 8 (4 to 5 p.m.) 1,550 cfs (6.03 ft); Mar. 14 (10:30 p.m.) 1,310 cfs (5.37 ft); Apr. 16 (6 a.m.) 3,650 cfs (10.54 ft)
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Cedar Creek near Lebanon, Va.

Location.--Lat 36°54'29", long 82°02'20", on right bank 800 ft upstream from Roaring Spring Creek, 1.3 miles downstream from Burgess Creek, 1.9 miles upstream from Little Cedar Creek, and 2.3 miles east of Lebanon, Russell County.

Drainage area.--51.5 sq mi.

Records available.--October 1952 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,928.96 ft above mean sea level (Tennessee Valley Authority benchmark).

Extremes.--Maximum discharge during year, 3,270 cfs Apr. 16 (gage height, 4.02 ft, from high-water mark in gage well); minimum, 3.8 cfs Jan. 15 (gage height, 1.32 ft), result of freezeup.

1952-56: Maximum discharge, 3,980 cfs Mar. 16, 1955 (gage height, 4.27 ft); minimum, that of Jan. 15, 1956; minimum gage height, 1.27 ft Oct. 19, 1952, Dec. 26, 1953 (result of freezeup).

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

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.3	4.0	2.0	110
1.4	7.0	2.1	160
1.5	13	2.3	300
1.6	22	2.6	580
1.7	34	3.0	1,090
1.8	51	3.5	2,050
1.9	75		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	*7.6	9.4	10	190	78	88	80	122	15	*13	8.8
2	7.0	7.6	10	10	115	72	*75	90	115	12	12	11
3	*6.8	7.6	11	*11	190	71	70	380	70	11	12	11
4	6.7	7.6	17	10	275	125	65	300	*60	12	11	*11
5	6.7	7.6	*34	9.4	240	*105	65	200	51	18	11	9.4
6	6.4	7.6	28	9.4	210	86	180	150	46	31	10	13
7	8.6	8.2	22	9.4	370	92	260	110	41	37	8.8	30
8	32	8.8	19	8.8	180	368	190	*80	37	26	8.8	23
9	18	8.2	20	7.6	*120	268	145	63	32	*23	8.2	18
10	12	10	21	8.8	92	150	125	53	28	20	8.2	14
11	10	13	19	8.8	86	120	125	50	24	18	8.2	12
12	8.8	13	16	9.4	86	88	145	48	21	15	8.2	11
13	8.8	12	15	9.4	70	150	155	46	19	17	8.8	9.4
14	10	11	15	8.2	65	300	135	45	17	24	8.8	8.8
15	8.8	11	15	8.2	63	350	280	70	15	23	8.2	8.2
16	8.8	11	12	9.4	63	280	1,350	180	16	22	7.6	8.0
17	9.4	21	10	7.6	276	310	520	140	18	30	7.0	8.2
18	9.4	20	12	7.0	661	235	390	100	22	26	7.0	7.6
19	11	24	16	16	450	210	250	78	31	23	12	7.2
20	11	29	18	39	560	160	155	78	29	21	18	7.2
21	9.4	22	16	29	350	130	125	60	28	18	37	7.0
22	8.8	18	13	21	230	110	103	50	40	16	28	7.1
23	8.8	16	12	20	150	98	89	48	35	14	18	7.2
24	8.2	14	11	19	96	95	78	44	31	13	13	7.1
25	7.6	13	12	18	185	92	70	39	27	17	12	7.3
26	7.6	13	12	18	290	87	63	35	21	22	11	8.0
27	7.6	12	12	15	200	75	58	34	17	19	9.4	9.0
28	7.6	11	11	15	150	66	53	42	16	17	8.8	84
29	7.0	10	11	209	95	93	49	54	14	18	8.8	35
30	8.2	8.8	12	552	------	125	47	46	13	23	8.8	20
31	7.6	-- --	11	300	------	105	------	39	----	19	8.8	- --
Total	295.8	383.6	472.4	1,433.4	6,108	4,694	5,503	2,832	1,056	620	360.4	428.5
Mean	9.54	12.8	15.2	46.2	211	151	183	91.4	35.2	20.0	11.6	14.3
Cfsm	0.185	0.249	0.295	0.897	4.10	2.93	3.55	1.77	0.683	0.388	0.225	0.278
In.	0.21	0.28	0.34	1.03	4.42	3.38	3.96	2.04	0.76	0.45	0.26	0.31

Calendar year 1955: Max 1,760 Min 5.6 Mean 79.8 Cfsm 1.55 In. 21.04
Water year 1955-56: Max 1,350 Min 6.4 Mean 66.1 Cfsm 1.28 In. 17.44

Peak discharge (base, 700 cfs).--Jan. 30 (2:30 p.m.) 852 cfs (2.83 ft); Feb. 18 (9:30 a.m.) 1,060 cfs (2.98 ft); Mar. 14 (time unknown) 762 cfs (2.76 ft); Apr. 16 (time unknown) 3,270 cfs (4.02 ft); May 3 (time unknown) 838 cfs (2.82 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 1-3, Dec. 24 to Jan. 3, Jan. 31 to Feb. 9, Feb. 19 to Mar. 5, Mar. 10 to Apr. 2, Apr. 5-20, Apr. 30 to May 8, May 11-29, June 3, 4, June 9 to July 9, July 16 to Aug. 1, Sept. 15-30; discharge estimated on basis of 9 discharge measurements, recorded range in stage, weather records, and records for North Fork Holston River near Saltville and Clinch River at Richlands.

Clinch River at Cleveland, Va.

Location.--Lat 36°56'41", long 82°09'18", on right bank 500 ft upstream from highway bridge at Cleveland, Russell County, 0.5 mile downstream from Muddy Hollow, 2.3 miles downstream from Weaver Creek, and 4.4 miles downstream from Thompson Creek.

Drainage area.--528 sq mi.

Records available.--October 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,500.24 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 1, 1931, chain gage on highway bridge 500 ft downstream at different datum.

Average discharge.--34 years (1921-23, 1924-56), 685 cfs.

Extremes.--Maximum discharge during year, 14,000 cfs Apr. 16 (gage height, 15.38 ft); minimum, 36 cfs Nov. 30 (gage height, 1.18 ft), result of freezeup.
1920-56: Maximum discharge, 26,500 cfs Dec. 22, 1926 (gage height, 23.0 ft, from graph based on gage readings, site and datum then in use), from rating curve extended above 13,000 cfs by logarithmic plotting; minimum, that of Nov. 30, 1955; minimum gage height, 0.96 ft Feb. 10, 1934.

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

Revisions (water years).--WSP 823: Drainage area. WSP 1276: 1926(M).

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 1		Dec. 2 to Sept. 30			
1.2	40	1.3	75	4.0	1,180
1.8	120	1.6	137	6.0	2,690
2.0	215	2.0	235	10.0	6,380
2.5	380	2.5	385	15.0	13,400
		3.0	590		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	*72	b85	148	1,250	1,180	1,120	483	920	155	*320	122
2	80	72	103	155	1,480	1,010	*980	580	1,180	155	266	133
3	*68	76	113	*168	3,330	950	920	2,070	810	158	235	130
4	54	70	139	158	3,690	1,320	920	3,330	*601	212	218	*126
5	48	72	*240	144	3,090	*1,320	810	1,920	479	198	198	119
6	50	72	287	133	2,770	1,140	920	1,320	410	188	182	139
7	60	74	245	130	4,050	1,100	1,850	1,040	360	238	168	248
8	256	76	202	117	2,850	3,440	1,850	*865	326	232	155	263
9	235	78	198	109	*1,660	3,960	1,480	700	302	*240	146	200
10	135	84	208	105	1,140	2,220	1,210	601	278	293	139	153
11	110	112	195	b100	950	1,590	1,740	540	258	269	130	133
12	88	129	165	b105	920	1,210	2,380	483	240	225	130	122
13	88	133	b140	b110	810	1,550	2,080	448	225	205	122	111
14	82	124	b135	b110	700	3,090	1,590	434	212	391	122	109
15	88	120	b130	b110	728	3,960	5,400	590	208	430	122	111
16	84	147	b125	b105	782	2,690	12,600	1,290	210	500	119	109
17	90	202	b120	b100	1,330	2,220	5,820	1,010	215	526	111	109
18	82	230	b130	b100	4,770	2,000	3,090	782	242	810	111	113
19	84	252	b140	142	4,860	2,220	2,150	628	248	491	126	107
20	102	352	b150	252	4,770	2,000	1,620	645	245	347	287	107
21	96	288	b150	269	4,050	1,620	1,250	531	266	284	420	101
22	90	210	b145	208	2,380	1,360	1,040	448	338	252	463	93
23	88	173	b140	215	1,590	1,140	950	413	463	222	296	91
24	78	147	162	195	1,360	1,070	838	382	410	218	215	93
25	68	133	155	185	2,530	1,070	755	354	302	245	172	95
26	66	122	158	b170	3,250	980	645	326	245	320	148	107
27	72	116	153	b150	2,220	892	590	311	212	396	137	250
28	66	106	146	b145	2,000	810	540	401	192	402	128	1,140
29	62	b90	139	1,410	1,550	1,480	487	560	185	354	126	700
30	66	88	148	3,870	------	2,150	455	420	170	531	126	399
31	70		153	2,530	------	1,620	------	416	------	402	128	------
Total	2,778	4,000	4,899	11,948	66,860	54,362	58,170	24,321	10,752	9,889	5,766	5,833
Mean	89.6	133	158	385	2,306	1,754	1,939	785	358	319	186	194
Cfsm	0.170	0.252	0.299	0.729	4.37	3.32	3.67	1.49	0.678	0.604	0.352	0.367
In.	0.20	0.28	0.34	0.84	4.71	3.83	4.10	1.72	0.76	0.70	0.41	0.41

Calendar year 1955: Max 11,800 Min 42 Mean 784 Cfsm 1.48 In. 20.13
Water year 1955-56: Max 12,600 Min 48 Mean 709 Cfsm 1.34 In. 18.30

Peak discharge (base, 5,000 cfs).--Feb. 18 (11:30 p.m.) 6,270 cfs (9.92 ft); Mar. 8 (12 p.m.) 5,130 cfs (8.78 ft); Apr. 16 (9 a.m.) 14,000 cfs (15.38 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Guest River at Coeburn, Va.

Location.--Lat 36°55'45", long 82°27'23", on right bank at downstream side of bridge on State Highway 72, 1.0 mile southeast of Coeburn, Wise County, 1.4 miles upstream from Jaybird Branch, 1.8 miles downstream from Pine Camp Creek, and 6 miles upstream from mouth.
Drainage area.--87.3 sq mi.
Records available.--September 1949 to September 1956.
Gage.--Water-stage recorder. Datum of gage is 1,925.00 ft above mean sea level (Interstate Railroad benchmark).
Average discharge.--7 years, 142 cfs.
Extremes.--Maximum discharge during year, 4,020 cfs Apr. 16 (gage height, 10.83 ft); minimum, 2.9 cfs Oct. 6, 7 (gage height, 1.32 ft).
1949-56: Maximum discharge, that of Apr. 16, 1956; minimum, 1.6 cfs Oct. 21, 22, 25, 26, Nov. 9, 10, 1953; minimum gage height, 1.23 ft Sept. 22, 23, 1955.
Revisions.--Figures of maximum discharge for the water years 1950 and 1955 have been revised to 3,300 cfs Jan. 31, 1950 (gage height, 9.93 ft) and 3,620 cfs Mar. 16, 1955 (gage height, 10.26 ft), superseding those published in WSP 1173 and 1386, respectively.
Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.
Revisions.--The figures of some peak discharges in the water years 1950 and 1955 have been revised as shown below, superseding those published in WSP 1173 and 1386.

Revised peak discharge.--1949-50: Jan. 31 (1 a.m.) 3,300 cfs (9.93 ft); Feb. 2 (11:30 a.m.) 2,760 cfs (9.17 ft).
1954-55: Mar. 6 (8 p.m.) 3,220 cfs (9.83 ft); Mar. 16 (5 p.m.) 3,620 cfs (10.26 ft); Mar. 22 (9:30 a.m.) 2,980 cfs (9.50 ft).

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 6-10)

Oct. 1 to Jan. 29				Jan. 30 to Sept. 30			
1.2	1.0	2.0	73	1.4	6.0	4.0	490
1.3	3.4	2.5	143	1.5	15	6.0	1,200
1.4	6.0	3.0	230	1.7	36	8.0	2,060
1.5	15	4.0	475	2.0	78	10.1	3,460
				3.0	240		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	3.7	b10	b20	226	220	204	96	98	a18	106	23
2	8.7	*3.4	11	b19	270	290	169	108	104	a17	*90	23
3	5.5	3.2	12	b18	1,040	388	*153	362	74	a18	78	21
4	*4.4	3.4	25	b18	1,000	580	169	505	61	a20	63	20
5	3.4	3.7	77	*b17	772	430	178	290	*50	a25	56	*17
6	3.2	3.7	*77	b16	668	*290	486	204	42	a35	49	32
7	3.9	3.9	60	b16	*1,080	260	1,120	169	36	a50	42	71
8	100	4.2	52	b16	460	1,160	535	146	32	a70	35	47
9	43	4.2	48	b16	250	930	338	*119	29	a80	32	31
10	20	4.4	44	b16	182	415	250	104	26	*a95	29	23
11	11	5.0	33	b16	188	280	339	96	24	65	28	20
12	7.8	5.7	b30	17	212	236	505	87	a22	49	30	18
13	6.0	5.5	b27	17	180	338	362	80	a21	53	25	16
14	6.9	5.2	b25	16	a160	886	270	77	a23	321	23	14
15	6.9	5.5	b23	17	a180	991	980	99	a25	238	23	20
16	5.2	6.9	b23	16	a210	505	*3,460	116	a26	143	21	23
17	5.0	18	b22	16	a450	400	1,040	86	a26	190	19	20
18	4.7	16	22	17	a1,400	362	475	72	a26	170	18	49
19	4.7	28	b25	23	a1,000	362	312	65	a25	150	27	26
20	4.7	46	b25	36	a1,300	325	232	60	a25	246	183	20
21	4.4	42	b26	38	a700	270	185	53	a30	350	132	16
22	4.2	30	b28	35	a450	230	159	49	a45	177	82	14
23	4.2	26	b29	36	a350	198	148	44	a35	138	54	12
24	4.4	23	30	b30	a300	209	130	43	a33	105	42	20
25	4.2	21	30	b30	a450	240	116	39	a30	124	32	20
26	3.7	19	28	32	a600	226	108	35	a25	146	28	14
27	3.9	18	25	b28	a450	199	100	34	a22	148	25	24
28	4.2	17	25	b26	a350	169	94	42	a20	270	23	35
29	4.4	b13	22	241	a300	312	88	61	a19	388	21	24
30	3.9	b10	22	895	------	388	86	50	a19	220	22	20
31	3.9	---	b21	505	------	280	------	43	---	143	20	---
Total	317.4	398.6	957	2,259	15,178	12,369	12,793	3,434	1,071	4,262	1,458	733
Mean	10.2	13.3	30.9	72.9	523	399	426	111	35.7	137	47.0	24.4
Cfsm	0.117	0.152	0.354	0.835	5.99	4.57	4.88	1.27	0.409	1.57	0.538	0.279
In.	0.13	0.17	0.41	0.96	6.46	5.27	5.44	1.46	0.46	1.81	0.62	0.31

Calendar year 1955 : Max 2,300 Min 2.0 Mean 138 Cfsm 1.58 In. 21.42
Water year 1955-56 : Max 3,460 Min 3.2 Mean 151 Cfsm 1.73 In. 23.50

Peak discharge (base, 1,500 cfs).--Feb. 18 (time unknown) 1,800 cfs (7.04 ft); Mar. 8 (6 p.m.) 1,600 cfs (7.00 ft); Apr. 16 (10 a.m.) 4,020 cfs (10.83 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 Clinch River at Richlands and Powell River at Big Stone Gap.
b Stage-discharge relation affected by ice.

Copper Creek near Gate City, Va.

Location.--Lat 36°40'26", long 82°33'57", on right bank at upstream side of highway bridge, 0.2 mile upstream from Plank Camp Creek, 1.1 miles downstream from Obeys Creek, and 2.6 miles northeast of Gate City, Scott County.

Drainage area.--106 sq mi.

Records available.--September 1947 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 1,290 ft (from topographic map). Prior to Aug. 30, 1953, wire-weight gage on highway bridge at same site and datum.

Average discharge.--9 years, 142 cfs.

Extremes.--1954-55: Maximum discharge during water year, 2,780 cfs Mar. 16 (gage height, 9.50 ft); minimum, 14 cfs Sept. 17; minimum gage height, 2.15 ft Oct. 8.
1955-56: Maximum discharge during water year, 3,580 cfs Apr. 16 (gage height, 10.35 ft); minimum, 3.6 cfs Jan. 15 (gage height, 1.98 ft), result of freezeup.
1947-56: Maximum discharge, 6,800 cfs Jan. 30, 1950 (gage height, 13.0 ft, from graph based on gage readings); minimum, that of Jan. 15, 1956.

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

Revisions (water years).--WSP 1143: 1948. WSP 1276: 1950(M).

Rating tables, Oct. 1, 1954, to Sept. 30, 1956 (gage height, and discharge, in cubic feet per second)
(Shifting-control method used July 12-24, 1955, May 5-15, 1956)

Oct. 1, 1954, to Feb. 6, 1955		Feb. 7, 1955, to Apr. 16, 1956				Apr. 17, 1956, to Sept. 30, 1956	
2.1	16	2.1	6.0	6.0	784	2.4	38
2.4	43	2.2	11	7.0	1,050	2.7	66
3.0	126	2.5	47	8.0	1,590	3.0	114
4.0	286	3.0	126	10.0	3,220	5.0	554
6.0	716	4.0	334			7.0	1,050
7.0	1,040						

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	21	29	80	140	56	640	160	110	51	32	27	21
2	24	34	60	100	200	*800	150	103	48	32	32	21
3	36	30	45	84	*250	455	145	95	47	32	*37	21
4	40	31	40	73	153	334	140	92	44	33	46	21
5	27	36	41	65	117	257	140	90	43	34	34	21
6	23	32	120	61	868	594	145	85	43	35	34	22
7	*21	28	155	58	1,210	1,100	*150	79	51	35	34	21
8	21	*34	80	54	486	521	137	73	55	33	29	*20
9	22	28	90	50	279	356	130	70	57	38	30	18
10	22	27	130	48	190	268	124	*66	*51	33	34	16
11	22	27	98	150	210	216	130	66	47	32	29	18
12	22	26	80	170	190	228	133	71	47	33	26	18
13	22	26	110	*135	145	190	131	88	46	*35	28	18
14	22	26	250	98	145	178	224	106	44	23	27	16
15	23	25	*100	82	130	250	222	154	42	21	27	16
16	24	27	75	76	140	1,710	176	106	39	20	48	15
17	27	27	60	70	400	1,090	150	87	38	19	39	15
18	25	26	88	62	325	1,450	137	80	38	16	30	15
19	25	26	140	65	250	1,050	128	73	38	15	27	15
20	25	27	90	60	200	760	124	68	38	15	32	16
21	25	28	69	54	160	642	124	67	37	15	28	16
22	24	28	59	64	160	1,780	124	64	35	15	32	18
23	24	27	55	69	800	880	126	64	40	15	30	18
24	24	27	51	69	600	576	130	70	40	51	28	21
25	24	26	47	66	400	477	137	71	40	47	26	27
26	24	26	43	56	250	688	135	64	39	38	23	27
27	25	30	39	59	500	500	124	57	39	33	23	23
28	27	45	37	65	700	350	115	56	35	29	22	22
29	29	90	60	62	-	280	112	55	33	29	21	21
30	31	150	370	62	------	220	110	54	32	29	21	28
31	33	------	230	62	------	190	------	51	------	28	21	- -
Total	784	1,049	2,992	2,387	9,514	19,230	4,213	2,435	1,277	895	925	587
Mean	25.3	35.0	96.5	77.0	340	620	140	78.5	42.6	28.9	29.8	19.6
Cfsm	0.239	0.330	0.910	0.726	3.21	5.85	1.32	0.741	0.402	0.273	0.281	0.185
In.	0.28	0.37	1.05	0.84	3.34	6.74	1.47	0.85	0.45	0.31	0.32	0.21

Calendar year 1954: Max 1,200 Min 18 Mean 87.3 Cfsm 0.824 In. 11.20
Water year 1954-55: Max 1,780 Min 15 Mean 127 Cfsm 1.20 In. 16.23

Peak discharge (base, 1,200 cfs).--Feb. 7 (1 a.m.) 1,900 cfs (8.45 ft); Mar. 7 (1:30 a.m.) 1,900 cfs (8.41 ft); Mar. 16 (6:30 p.m.) 2,780 cfs (9.50 ft); Mar. 18 (8:30 p.m.) 2,060 cfs (8.57 ft); Mar. 22 (1:30 p.m.) 2,300 cfs (8.87 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 19 to Nov. 8, Nov. 22 to Dec. 15, Dec. 23 to Jan. 13, Jan. 16 to Feb. 3, Feb. 11 to Mar. 2, Mar. 27 to Apr. 7; discharge estimated on basis of recorded range in stage, weather records, and records for Big Moccasin Creek near Gate City and Clinch River at Speers Ferry.

Copper Creek near Gate City, Va.--Continued

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	20	16	17	166	180	228	154	149	65	70	a70
2	26	20	23	16	253	214	194	167	189	61	71	a74
3	22	*21	22	16	688	301	182	554	127	57	*76	a77
4	20	21	57	16	521	543	*323	554	125	66	71	a58
5	*20	21	168	*16	422	378	312	323	125	57	63	a54
6	19	21	88	22	620	279	387	239	125	58	59	*a180
7	23	22	57	15	*830	*248	585	204	98	62	57	158
8	61	23	46	14	411	576	400	171	89	64	a54	83
9	52	22	55	10	244	554	290	143	86	63	a52	59
10	32	23	64	19	168	367	228	*125	84	62	a50	52
11	24	26	56	19	172	288	279	114	76	*59	a45	49
12	21	27	37	14	239	224	433	106	70	55	a54	46
13	21	27	38	14	170	488	323	102	67	52	a52	44
14	23	27	35	16	133	838	279	98	65	171	a50	42
15	22	28	32	10	130	856	838	112	64	165	a48	42
16	22	29	21	18	126	*598	*2,700	182	63	104	a46	41
17	21	30	19	18	477	543	954	147	66	116	a44	41
18	21	30	28	11	1,050	433	642	127	70	112	a42	44
19	22	42	28	21	760	378	477	125	114	81	a60	48
20	21	55	24	37	904	301	378	123	114	70	a100	42
21	20	44	24	48	620	242	312	114	74	64	a150	40
22	20	32	22	34	400	208	268	110	178	60	a120	39
23	20	27	23	29	268	178	242	106	116	62	a90	39
24	20	26	22	34	228	166	213	114	114	82	a65	40
25	19	24	21	30	422	150	191	104	84	81	a55	41
26	19	24	21	29	642	135	173	104	72	240	a50	41
27	19	24	20	24	411	128	162	114	67	102	a46	50
28	20	24	19	24	334	130	149	125	64	171	a49	132
29	21	20	18	114	235	532	140	127	62	151	a40	66
30	21	14	19	*760	-----	499	132	125	60	123	a44	53
31	21	----	19	477	-----	312	-----	123	----	94	a53	----
Total	742	794	1,172	1,942	12,046	11,245	12,374	5,136	2,857	2,830	1,926	1,845
Mean	23.9	26.5	37.8	62.6	415	363	412	166	95.2	91.3	62.1	61.5
Cfsm	0.225	0.250	0.357	0.591	3.92	3.42	3.89	1.57	0.898	0.861	0.586	0.580
In.	0.26	0.28	0.41	0.68	4.23	3.94	4.34	1.81	1.00	0.99	0.68	0.65

Calendar year 1955: Max 1,780 Min 14 Mean 121 Cfsm 1.14 In. 15.48
Water year 1955-56: Max 2,700 Min 10 Mean 150 Cfsm 1.42 In. 19.27

Peak discharge (base, 1,200 cfs).--Apr. 16 (8:30 a.m.) 3,580 cfs (10.35 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 Big Moccasin Creek near Gate City and Clinch River at Speers Ferry.

Quillin Spring near Gate City, Va.

Location.--Lat 36°41'49", long 82°34'38", 4 miles north of Gate City, Scott County.
Records available.--January 1954 to September 1956 (discharge measurements only), discontinued.
Extremes.--Maximum discharge measured during year, 14.0 cfs Feb. 7; minimum measured, 0.493 cfs Jan. 5.
1954-56: Maximum discharge measured, that of Feb. 7, 1956; minimum measured, that of Jan. 5, 1956.
Remarks.--Discharge measurements made 50 ft below spring.

Discharge measurements, in cubic feet per second, water year October 1955 to September 1956

Oct. 5.....	0.955	Feb. 7.....	14.0	June 6.....	1.57
Nov. 3.....	.801	Mar. 7.....	5.62	July 11.....	1.43
Dec. 7.....	.672	Apr. 4.....	8.86	Aug. 3.....	2.80
Jan. 5.....	.493	May 10.....	3.73	Sept. 6.....	1.07

Clinch River at Speers Ferry, Va.

Location.--Lat 36°38'55", long 82°45'02", on right bank 100 ft downstream from bridge on U. S. Highway 58, 0.5 mile downstream from Copper Creek, 0.8 mile northwest of Speers Ferry, Scott County, and 1.8 miles downstream from Clinchport.
Drainage area.--1,126 sq mi.
Records available.--October 1920 to September 1956. Gage-height records collected in this vicinity February 1895 to July 1933 are contained in reports of U. S. Weather Bureau.
Gage.--Water-stage recorder. Datum of gage is 1,196.52 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 22, 1926, staff gage at site 400 ft upstream at datum 1.50 ft higher. Nov. 22, 1926, to Nov. 6, 1931, chain gage at present site and datum.
Average discharge.--36 years, 1,566 cfs.
Extremes.--Maximum discharge during year, 28,400 cfs Apr. 16 (gage height, 21.90 ft); minimum, 112 cfs Oct. 7 (gage height, 1.25 ft).
1920-56: Maximum discharge, 37,200 cfs Feb. 3, 1923 (gage height, 25.85 ft, present datum, from graph based on gage readings), from rating curve extended above 11,000 cfs by logarithmic plotting; minimum, 42 cfs Sept. 29, Oct. 23, 1939; minimum daily, 77 cfs Oct. 7, 8, 14, 15, 22, 1930.
Remarks.--Records good. Prior to May 1951, diurnal fluctuation at low flow caused by mill above station.
Revisions (water years).--WSP 823: Drainage area. WSP 1276: 1925(M), 1927, 1928-31(M), 1932, 1935(M).

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	141	115	166	240	4,090	2,700	2,700	1,380	1,320	345	970	317
2	145	115	152	232	3,000	3,100	2,350	1,420	2,500	361	1,100	395
3	140	*119	166	230	6,320	3,540	2,110	3,560	1,930	320	910	307
4	134	122	639	251	7,880	4,420	2,400	7,280	1,460	530	620	286
5	*126	121	1,080	*251	7,160	4,090	2,700	5,240	1,140	550	502	265
6	121	122	745	235	7,640	3,210	3,210	3,320	940	470	443	*326
7	122	124	*620	222	9,680	*2,900	6,560	2,500	772	498	388	745
8	251	127	506	202	*6,800	5,960	5,120	2,060	695	506	348	720
9	443	126	454	183	4,090	9,320	3,760	1,700	620	572	317	550
10	431	131	458	175	2,700	6,200	2,900	*1,500	572	550	295	420
11	280	143	431	170	2,350	3,870	3,320	1,340	510	*572	283	339
12	207	146	378	177	2,600	3,000	5,600	1,220	466	510	286	286
13	175	164	304	188	2,250	3,650	4,640	1,110	427	431	280	254
14	162	188	262	183	1,880	7,280	3,540	1,000	417	1,420	254	232
15	156	212	262	175	1,840	10,100	10,100	1,110	381	1,840	240	217
16	148	212	265	172	1,880	7,160	27,200	1,660	381	1,340	230	219
17	146	227	235	175	4,750	5,600	16,100	1,930	388	1,380	219	217
18	145	251	248	160	10,900	4,640	7,520	1,580	486	1,460	209	240
19	143	388	280	181	11,400	4,200	5,000	1,340	620	1,460	237	254
20	138	486	289	240	10,300	3,980	3,650	1,140	550	1,340	454	235
21	134	530	298	339	8,720	3,320	2,900	1,140	474	1,460	828	202
22	143	506	301	462	5,360	2,800	2,400	970	695	1,040	855	192
23	143	406	295	413	3,430	2,400	2,060	855	828	772	745	183
24	136	339	310	392	3,280	2,200	1,840	772	1,180	695	530	181
25	131	283	323	385	7,160	2,200	1,620	720	855	695	399	181
26	126	260	295	368	8,720	2,110	1,500	645	620	849	323	181
27	122	240	280	335	5,480	1,930	1,380	620	486	1,720	280	217
28	119	219	271	310	4,200	2,020	1,260	645	406	1,580	254	414
29	118	197	257	796	3,430	4,200	1,140	1,040	361	2,110	240	1,340
30	123	179	248	5,960	------	4,760	1,110	1,080	335	1,540	230	882
31	117	-- --	246	7,400	------	3,540	-------	855	-------	1,380	257	- -
Total	5,164	6,798	11,064	21,202	159,290	130,400	137,690	52,732	22,775	30,296	13,526	10,797
Mean	167	227	357	684	5,493	4,206	4,590	1,701	759	977	436	360
Cfsm	0.148	0.202	0.317	0.607	4.88	3.74	4.08	1.51	0.674	0.868	0.387	0.320
In.	0.17	0.23	0.37	0.70	5.26	4.31	4.55	1.74	0.75	1.00	0.45	0.36

Calendar year 1955: Max 23,700 Min 97 Mean 1,562 Cfsm 1.39 In. 18.84
Water year 1955-56: Max 27,200 Min 115 Mean 1,644 Cfsm 1.46 In. 19.89

Peak discharge (base, 10,000 cfs).--Feb. 7 (1 a.m.) 10,500 cfs (12.19 ft); Feb. 19 (1 a.m.) 12,400 cfs (13.63 ft); Mar. 15 (5 a.m.) 11,000 cfs (12.57 ft); Apr. 16 (9 to 10 a.m.) 28,400 cfs (21.90 ft).
* Discharge measurement made on this day.

North Fork Clinch River at Duffield, Va.

Location.--Lat 36°42'40", long 82°47'45", on right bank at upstream side of bridge on U. S. Highways 58 and 421, 0.2 mile downstream from Spurlock Branch, 0.5 mile south of Duffield, Scott County, and 1.6 miles upstream from Harris Branch.

Drainage area.--23.1 sq mi.

Records available.--October 1952 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,814.15 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 800 cfs Apr. 15 (gage height, 7.40 ft); minimum, 1.3 cfs Oct. 3-7 (gage height, 1.30 ft).
1952-56: Maximum discharge, that of Apr. 15, 1956; minimum, 1.0 cfs Sept. 17-19, 23, 24, 1955.

Remarks.--Records good.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.3	1.3	2.0	42
1.4	3.3	3.0	136
1.5	6.3	4.0	275
1.6	12	7.0	734
1.8	26		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	2.1	4.2	4.8	78	62	76	29	89	6.0	13	3.9
2	1.7	*2.0	3.6	4.8	120	102	67	31	69	5.1	11	8.8
3	1.5	2.3	3.6	4.8	305	141	60	176	48	4.8	*11	5.1
4	1.3	2.3	50	*4.5	245	173	*77	148	37	4.8	7.6	3.9
5	*1.3	2.5	54	4.5	200	122	83	90	29	4.5	7.1	3.3
6	1.3	2.3	*31	4.2	652	89	156	69	*25	6.0	6.3	*9.4
7	6.2	2.7	22	4.2	335	*166	193	58	20	6.3	5.7	40
8	24	2.7	17	4.2	154	342	121	48	17	12	5.4	20
9	6.3	2.5	16	3.9	92	208	86	42	16	10	4.5	11
10	3.9	2.9	13	3.6	66	123	70	*37	13	*7.1	4.5	7.1
11	3.1	3.3	11	3.6	62	87	102	33	12	6.3	4.8	5.7
12	2.5	3.3	8.8	3.5	57	74	123	30	10	5.1	5.1	5.1
13	2.5	3.1	7.6	3.4	53	98	94	28	8.8	5.4	4.5	4.2
14	2.5	3.9	6.7	3.4	53	260	79	27	11	153	4.8	3.9
15	2.5	5.7	6.0	3.3	64	215	410	33	8.2	79	4.5	3.3
16	2.5	6.3	5.7	3.3	63	160	560	31	7.6	56	3.9	3.1
17	2.3	7.6	5.7	3.6	240	137	238	27	11	45	3.6	3.1
18	2.3	6.3	6.0	3.6	425	117	138	28	13	34	3.1	3.3
19	2.3	16	8.2	3.9	290	97	94	25	13	23	4.5	3.1
20	2.3	16	8.8	5.1	380	81	72	20	11	66	11	2.9
21	2.1	9.4	8.8	5.1	193	70	60	18	10	108	10	2.9
22	2.1	6.7	8.8	4.8	115	62	54	17	24	61	6.0	2.7
23	1.9	6.0	8.2	5.1	80	56	48	16	18	39	4.8	2.5
24	1.9	6.0	7.6	6.3	92	56	44	16	12	34	4.2	2.9
25	1.9	5.7	7.1	6.3	208	50	40	14	10	37	3.6	2.9
26	1.9	5.4	6.3	6.3	193	49	37	13	13	35	3.3	2.7
27	1.9	5.4	6.0	5.7	123	47	34	13	9.4	29	3.1	3.9
28	2.1	5.1	5.7	5.7	94	74	32	33	7.1	24	3.1	3.9
29	2.1	4.8	5.4	112	70	290	30	25	6.0	25	3.1	3.3
30	2.1	4.2	5.4	312	-----	160	28	20	6.7	20	3.3	2.9
31	2.3	--	5.1	142	-----	100	-----	16	-----	16	3.3	-----
Total	96.9	154.5	363.3	691.5	5,102	3,868	3,306	1,201	584.8	967.4	173.7	180.8
Mean	3.13	5.15	11.7	22.3	176	125	110	38.7	19.5	31.2	5.60	6.03
Cfsm	0.135	0.223	0.506	0.965	7.62	5.41	4.76	1.68	0.844	1.35	0.242	0.261
In.	0.16	0.25	0.58	1.11	8.22	6.24	5.31	1.94	0.94	1.56	0.28	0.29

Calendar year 1955: Max 542 Min 1.1 Mean 35.1 Cfsm 1.52 In. 20.61
Water year 1955-56: Max 652 Min 1.3 Mean 45.6 Cfsm 1.97 In. 26.88

Peak discharge (base, 500 cfs).--Feb. 6 (5 p.m.) 638 cfs (6.38 ft); Feb. 18 (8 to 9 a.m.) 515 cfs (5.62 ft); Apr. 15 (8:30 p.m.) 800 cfs (7.40 ft).
* Discharge measurement made on this day.

Clinch River above Tazewell, Tenn.

Location.--Lat 36°25'30", long 83°23'54", on right bank 0.4 mile upstream from Grissom Island, 4.6 miles downstream from Big War Creek, 10 miles east of Tazewell, Claiborne County, and at mile 159.8.

Drainage area.--1,474 sq mi.

Records available.--April 1919 to September 1927 (published as "near Lone Mountain"), August 1927 to December 1936 (published as "near Tazewell"), July 1935 to September 1956.

Gage.--Water-stage recorder at present site and datum since Dec. 4, 1935. Datum of gage is 1,060.7 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Apr. 1, 1919, to Sept. 30, 1927, chain gage on railroad bridge 23 miles downstream at datum 102.7 ft lower. Aug. 8, 1927, to Dec. 31, 1936, water-stage recorder at site 7.7 miles downstream at datum 47.2 ft lower. July 29 to Dec. 3, 1935, staff gage at present site and datum.

Average discharge.--37 years, 2,069 cfs.

Extremes.--Maximum discharge during year, 33,100 cfs Apr. 16 (gage height, 16.34 ft); minimum, 138 cfs Oct. 30 (gage height, 0.48 ft).

1919-56: Maximum discharge observed, 39,700 cfs Feb. 4, 1923 (gage height, 20.3 ft, site and datum then in use); minimum observed, 108 cfs Sept. 11, 1925.

Maximum stage known, about 24 ft in 1862, present site and datum, from information by local resident.

Remarks.--Records good.

Revisions (water years).--WSP 1336: 1928.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 30 to June 2)

0.4	125	3.0	2,100
.5	151	5.0	4,800
.7	220	8.0	10,200
1.0	355	12.0	19,800
1.5	675	15.3	29,800
2.0	1,070		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	201	*146	*240	330	*7,040	3,980	4,240	1,480	*961	394	1,450	315
2	193	143	236	320	4,540	*3,390	*3,460	1,850	1,860	*388	1,200	522
3	*179	141	236	*310	7,840	4,290	3,530	2,730	2,480	446	1,390	464
4	179	143	1,500	315	9,800	6,580	4,830	7,260	1,810	377	1,010	*377
5	173	143	2,260	320	9,500	6,090	4,930	7,640	1,390	528	758	340
6	170	143	1,470	330	9,640	4,830	4,700	4,860	1,130	584	633	394
7	173	146	1,010	315	14,200	3,850	7,600	*3,520	961	549	*556	818
8	496	151	833	296	10,700	5,540	7,790	2,840	841	563	490	961
9	388	154	720	252	6,860	9,820	5,700	2,360	750	563	440	818
10	464	157	647	269	4,300	9,540	4,300	2,020	690	626	404	654
11	490	166	619	256	3,160	5,870	4,060	1,770	640	577	377	522
12	350	173	570	244	3,060	4,180	5,720	1,570	591	591	388	434
13	274	179	502	244	3,000	4,800	6,590	1,430	535	556	377	377
14	240	190	428	248	2,620	7,010	5,330	1,330	502	735	372	335
15	212	256	377	252	2,350	12,200	6,500	1,320	584	1,850	345	305
16	201	287	355	252	2,330	11,000	25,600	1,640	483	4,420	320	282
17	193	305	345	248	4,390	8,280	*29,500	2,090	448	2,530	292	274
18	182	300	382	228	11,500	6,590	16,600	2,020	452	1,880	287	278
19	182	399	399	252	15,000	5,440	8,490	1,670	528	1,650	278	278
20	179	598	410	278	*14,400	5,020	5,840	1,430	682	1,570	377	300
21	179	619	410	320	12,600	4,530	4,440	1,260	626	1,670	728	296
22	173	612	410	394	9,400	3,800	3,600	1,220	605	1,670	929	269
23	170	598	410	542	5,910	3,280	3,020	1,090	1,020	1,160	929	252
24	176	542	399	570	4,230	2,930	2,620	1,010	1,000	985	818	260
25	170	452	422	563	5,380	2,710	2,320	921	1,170	913	633	248
26	163	410	434	549	9,540	2,640	2,070	849	889	857	483	236
27	160	366	399	522	9,560	2,530	1,880	810	682	1,060	399	248
28	151	315	377	502	6,310	2,340	1,730	864	556	1,740	366	282
29	148	292	360	986	4,940	3,160	1,580	905	476	1,950	360	472
30	146	264	355	5,400	-----	5,650	1,480	1,130	422	1,970	320	1,260
31	143	--	345	9,320	-----	5,550	-------	1,050	-- ----	1,500	310	-
Total	6,898	8,790	17,860	25,227	214,100	167,420	190,050	63,939	25,762	36,852	18,019	12,871
Mean	223	293	576	814	7,385	5,401	6,335	2,063	859	1,189	581	429
Cfsm	0.151	0.199	0.391	0.552	5.01	3.66	4.30	1.40	0.583	0.807	0.394	0.291
In.	0.17	0.22	0.45	0.64	5.40	4.22	4.80	1.61	0.65	0.93	0.45	0.32

Calendar year 1955: Max 27,600 Min 113 Mean 1,983 Cfsm 1.35 In. 18.25
Water year 1955-56: Max 29,500 Min 141 Mean 2,152 Cfsm 1.46 In. 19.86

Peak discharge (base, 14,000 cfs).--Feb. 7 (1 p.m.) 15,000 cfs (10.15 ft); Feb. 20 (1 a.m.) 15,200 cfs (10.22 ft); Apr. 16 (11:30 p.m.) 33,100 cfs (16.34 ft).

* Discharge measurement made on this day.

Note.--Discharge for Nov. 18-21, Nov. 29 to Dec. 19, Aug. 17-21, computed from bihourly readings of Tennessee Valley Authority radio gage located in same well.

Powell River at Big Stone Gap, Va.

Location.--Lat 36°52'08", long 82°46'32", on right bank 10 ft upstream from bridge on U. S. Highway 23 at Big Stone Gap, Wise County, 1 mile upstream from South Fork Powell River and 2.5 miles downstream from Pigeon Creek.
Drainage area.--112 sq mi.
Records available.--October 1944 to September 1956.
Gage.--Water-stage recorder. Datum of gage is 1,459.07 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Apr. 27, 1948, staff gage at same site and datum.
Average discharge.--11 years (1945-56), 206 cfs.
Extremes.--Maximum discharge during year, 7,800 cfs Apr. 15 (gage height, 7.95 ft); minimum, 8.0 cfs Oct. 6 (gage height, 0.64 ft).
1944-56: Maximum discharge, 16,500 cfs Jan. 7, 1946 (gage height, 9.8 ft, from flood-mark); minimum, 4.0 cfs Sept. 16, 17, 19, 1955.
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)
1143	1949	Mar. 18, 1949	4,800	6.25
1173	1950	Jan. 30, 1950	4,960	6.36
1206	1951	Dec. 7, 1950	4,800	6.27
1236	1952	Dec. 15, 1951	5,920	6.97
1276	1953	Feb. 21, 1953	6,000	7.04
1386	1955	Mar. 16, 1955	5,360	6.62

Remarks.--Records good except those for period of ice effect or no gage-height record, which are fair.
Revisions.--WSP 1053: Drainage area. The figures of peak discharge for the water years 1950 and 1955 have been revised as shown below, superseding those published in WSP 1173 and 1386.

Revised peak discharge.--1949-50: Jan. 30 (5:30 p.m.) 4,960 cfs; Feb. 2 (4:30 a.m.) 4,560 cfs.
1954-55: Mar. 6 (3 p.m.) 4,400 cfs (6.01 ft); Mar. 16 (1:30 p.m.) 5,360 cfs (6.62 ft); Mar. 22 (5:30 a.m.) 4,720 cfs (6.20 ft).

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	11	16	32	322	390	342	178	199	31	124	a30
2	15	*11	22	30	390	552	302	200	154	31	*100	a35
3	13	13	25	31	1,430	731	*258	807	116	31	84	a40
4	*11	12	99	*27	1,300	1,000	354	724	94	36	72	a35
5	11	11	132	24	1,040	703	370	430	*81	32	66	*a27
6	9.0	12	*88	24	*1,390	*485	1,200	322	72	32	60	54
7	34	13	70	27	1,520	510	1,340	262	64	45	52	129
8	158	15	61	26	717	2,150	738	206	58	96	49	79
9	43	14	62	24	435	1,120	500	*172	56	79	a45	58
10	26	16	55	b24	322	654	390	152	51	*62	a40	46
11	20	19	47	b23	286	475	390	136	47	46	a38	39
12	15	18	39	b22	230	398	415	126	42	39	a40	35
13	19	16	32	b22	200	465	382	116	40	62	a32	32
14	22	20	32	b21	196	1,980	342	114	38	282	a31	30
15	16	20	32	b20	230	1,250	2,860	124	38	162	a30	32
16	18	26	29	b21	254	780	3,360	124	36	142	a28	29
17	16	36	29	b21	801	584	1,250	112	46	511	a26	32
18	15	30	39	19	2,830	534	780	104	44	254	a26	42
19	20	70	46	34	1,300	500	540	96	44	132	a35	31
20	16	67	43	40	1,160	445	420	88	42	200	a90	27
21	14	48	43	39	878	382	346	81	73	238	a180	26
22	12	36	42	32	564	346	294	77	121	144	a110	24
23	11	35	43	38	402	310	262	72	77	104	a70	26
24	12	32	43	36	671	362	238	70	66	102	a56	55
25	12	30	43	35	2,100	398	189	64	51	112	a44	39
26	11	27	43	35	1,480	362	170	64	48	110	a36	31
27	11	26	40	31	801	310	157	66	42	92	a33	34
28	11	26	34	29	633	282	144	90	36	112	a30	32
29	12	20	35	501	475	696	142	79	36	330	a29	26
30	12	19	38	1,300	-------	689	157	69	31	290	a28	24
31	12	-------	38	661	-------	455	-------	69	-------	172	a28	-------
Total	653.0	749	1,440	3,249	24,357	20,298	18,632	5,394	1,943	4,110	1,712	1,179
Mean	21.1	25.0	46.5	105	840	655	621	174	64.8	133	55.2	39.3
Cfsm	0.188	0.223	0.415	0.938	7.50	5.85	5.54	1.55	0.579	1.19	0.493	0.351
In.	0.22	0.25	0.48	1.08	8.09	6.74	6.18	1.79	0.65	1.37	0.57	0.39

Calendar year 1955: Max 3,930 Min 5.0 Mean 192 Cfsm 1.71 In. 23.23
Water year 1955-56: Max 3,360 Min 9.0 Mean 229 Cfsm 2.04 In. 27.81

Peak discharge (base, 1,600 cfs).--Feb. 3 (5 to 7 p.m.) 1,740 cfs (3.97 ft); Feb. 6 (9 to 10 p.m.) 2,420 cfs (4.54 ft); Feb. 18 (10 a.m.) 4,260 cfs (5.88 ft); Feb. 25 (4 to 5 p.m.) 3,170 cfs (5.11 ft); Mar. 8 (10 a.m.) 3,070 cfs (5.04 ft); Mar. 14 (1:30 p.m.) 3,210 cfs (5.14 ft); Apr. 6 (7 p.m.) 2,610 cfs (4.69 ft); Apr. 15 (9 p.m.) 7,800 cfs (7.95 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 Powell River near Jonesville and Guest River at Coeburn.
b Stage-discharge relation affected by ice.

Powell River near Jonesville, Va.

Location.--Lat 36°39'43", long 83°05'42", on right bank 35 ft downstream from highway bridge, 2 miles southeast of Jonesville, Lee County, and 10 miles upstream from Wallen Creek.

Drainage area.--319 sq mi.

Records available.--November 1931 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,259.08 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--24 years (1932-56), 504 cfs.

Extremes.--Maximum discharge during year, 15,800 cfs Apr. 16 (gage height, 23.53 ft); minimum, 29 cfs Oct. 25; minimum gage height, 0.98 ft Oct. 7, 25.
1931-56: Maximum discharge, 30,000 cfs (revised) Jan. 8, 1946 (gage height, 30.8 ft), from rating curve extended above 20,000 cfs by logarithmic plotting; minimum, 17 cfs Sept. 19, 20, 1954.
Revisions.--Figures of maximum discharge for the water years 1946 and 1948 have been revised to 30,000 cfs Jan. 8, 1946 (gage height, 30.8 ft), and 20,600 cfs Feb. 14, 1948 (gage height, 25.85 ft), superseding those published in WSP 1053 and 1113, respectively.

Remarks.--Records good.

Revisions (water years).--WSP 823: Drainage area. WSP 1033: 1932-44.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.0	28	4.0	1,040
1.3	61	6.0	2,220
1.6	103	10.0	4,820
2.0	184	15.0	8,170
3.0	540	20.0	12,000

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	30	51	77	1,090	898	952	340	537	81	350	75
2	64	*30	47	71	980	1,140	740	371	765	81	*266	112
3	51	31	52	75	3,320	1,800	*692	1,100	468	103	212	105
4	39	31	470	*75	3,780	2,740	945	2,220	360	88	172	91
5	*35	31	1,040	70	3,390	1,920	1,290	1,260	*284	106	143	*74
6	33	31	*452	64	3,580	*1,290	1,980	842	228	106	124	85
7	42	31	298	64	5,860	1,140	3,980	648	190	100	108	219
8	295	31	209	61	2,220	3,780	1,920	540	164	108	96	290
9	227	31	172	56	1,230	3,520	1,260	*456	147	315	87	162
10	103	33	166	53	842	1,680	980	402	137	*206	80	120
11	69	37	139	52	670	1,170	870	364	124	149	77	97
12	51	37	112	52	602	925	1,040	326	112	115	81	85
13	45	37	96	50	520	1,120	870	298	103	102	75	74
14	44	40	92	50	484	3,840	740	273	100	1,250	77	69
15	44	64	92	49	602	3,840	4,430	270	137	925	73	64
16	45	70	87	52	648	1,980	10,600	312	103	1,170	66	60
17	40	97	77	54	1,780	1,500	3,200	290	141	1,010	61	60
18	39	105	81	53	6,640	1,290	1,800	248	155	925	57	57
19	39	208	108	52	4,360	1,200	1,260	228	120	540	157	68
20	37	326	120	65	3,980	1,090	1,040	198	128	410	420	65
21	37	187	117	80	2,540	870	765	182	124	1,120	392	54
22	36	124	110	77	1,500	740	648	166	310	602	298	52
23	34	96	108	75	1,040	648	560	155	354	413	187	49
24	32	91	106	85	925	648	492	151	235	354	139	52
25	31	88	103	85	3,390	692	440	145	179	496	112	66
26	30	82	102	84	4,500	648	402	133	139	420	96	71
27	30	78	96	80	1,980	602	374	128	120	364	84	61
28	30	71	88	71	1,500	560	350	135	105	287	80	62
29	30	64	81	421	1,120	2,100	326	266	92	608	77	69
30	30	58	80	3,720	-------	1,980	312	287	85	715	75	62
31	30	-------	81	2,610	-------	1,290	-------	215	-------	488	73	---- --
Total	1,752	2,270	5,033	8,583	65,073	48,641	45,258	12,949	6,266	13,757	4,395	2,630
Mean	56.5	75.7	162	277	2,244	1,569	1,509	418	209	444	142	87.7
Cfsm	0.177	0.237	0.508	0.868	7.03	4.92	4.73	1.31	0.655	1.39	0.445	0.275
In.	0.20	0.26	0.59	1.00	7.58	5.67	5.28	1.51	0.73	1.60	0.51	0.31

Calendar year 1955: Max 7,890 Min 19 Mean 485 Cfsm 1.52 In. 20.64
Water year 1955-56: Max 10,600 Min 30 Mean 592 Cfsm 1.86 In. 25.24

Peak discharge (base, 5,000 cfs).--Feb. 7 (3:30 to 4:30 a.m.) 7,330 cfs (13.84 ft); Feb. 18 (8 p.m.) 8,170 cfs (14.99 ft); Feb. 26 (3 a.m.) 6,120 cfs (11.98 ft); Mar. 8 (8 to 9 p.m.) 5,920 cfs (11.67 ft); Mar. 14 (9:30 p.m.) 6,440 cfs (12.48 ft); Apr. 7 (3 a.m.) 5,080 cfs (10.45 ft); Apr. 16 (3 a.m.) 15,800 cfs (23.53 ft).
* Discharge measurement made on this day.

Powell River near Arthur, Tenn.

Location.--Lat 36°32'30", long 83°37'49", on left bank 500 ft (revised) upstream from bridge on U. S. Highway 25E, 2.3 miles east of Arthur, Clairborne County, and 2.4 miles downstream from Indian Creek.

Drainage area.--685 sq mi.

Records available.--October 1919 to September 1956 in reports of Geological Survey. Gage-height records collected at same site December 1892 to August 1920 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 1,045.84 above mean sea level (Tennessee River Survey datum). Prior to July 22, 1927, chain gage at same site and datum.

Average discharge.--37 years, 1,137 cfs.

Extremes.--Maximum discharge during year, 18,500 cfs Apr. 17 (gage height, 18.96 ft); minimum, 84 cfs Oct. 27, 28, 31, Nov. 2 (gage height, 0.20 ft).
1919-56: Maximum discharge, 33,000 cfs Jan. 9, 1946 (gage height, 27.15 ft, from floodmark), from rating curve extended above 23,000 cfs on basis of slope-area determination of peak flow; minimum, 47 cfs Jan. 6, 1940, result of freezeup; minimum gage height, -0.12 ft Oct. 28, 29, 1948; minimum daily discharge, 60 cfs Sept. 23, 1955.
Maximum stage known, 27.2 ft Jan. 29, 1918 (discharge, 33,000 cfs).

Remarks.--Records good.

Revisions (water years).--WSP 1336: 1920, 1921(M), 1923.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Sept. 15				Sept. 15 to Sept. 30	
0.2	84	4.0	2,200	0.2	120
.5	145	7.0	4,800	.4	175
1.0	280	11.0	8,600		
1.5	505	15.0	13,000		
2.0	800	17.5	16,400		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	170	*88	*158	192	*4,580	2,130	2,380	740	*510	226	716	170
2	138	84	152	188	2,900	*1,840	*1,800	788	620	*215	602	188
3	*129	88	155	*185	5,230	2,510	1,780	1,680	1,120	238	505	190
4	116	88	1,210	178	7,530	4,850	2,230	3,200	764	215	405	*220
5	112	88	2,260	175	7,660	5,070	2,920	3,590	578	232	335	205
6	100	89	1,900	175	6,980	3,780	3,830	2,290	472	218	290	241
7	102	89	960	170	8,240	3,010	5,440	*1,710	405	226	*265	282
8	148	91	632	155	9,120	5,670	6,330	1,380	360	229	244	259
9	234	89	549	152	4,640	7,600	3,940	1,140	327	235	226	343
10	591	98	483	150	2,730	6,110	2,720	956	308	265	212	308
11	259	106	425	145	2,060	3,650	2,180	848	290	343	202	247
12	182	106	360	140	1,720	2,600	2,060	764	274	277	192	215
13	152	102	312	143	1,480	2,470	2,060	698	259	259	185	195
14	136	108	277	145	1,270	4,560	1,810	644	247	271	195	182
15	122	138	253	140	1,220	7,140	2,920	632	244	982	200	176
16	116	190	238	140	1,340	7,020	10,200	662	274	1,820	198	166
17	110	226	226	134	2,560	4,450	*16,400	650	290	2,900	182	154
18	110	235	232	131	8,460	3,450	7,380	584	250	1,690	170	145
19	108	327	271	145	11,200	2,870	4,140	516	290	1,380	175	142
20	102	456	319	162	*9,260	2,440	2,900	483	435	842	272	138
21	98	456	312	160	7,440	2,060	2,190	450	304	638	549	135
22	98	386	294	165	5,070	1,770	1,780	420	428	1,210	572	151
23	95	312	274	190	3,290	1,550	1,530	400	840	860	430	138
24	100	301	259	220	2,490	1,460	1,330	391	782	650	323	140
25	93	265	250	235	3,290	1,360	1,160	368	596	662	262	140
26	89	244	238	244	5,860	1,360	1,020	351	425	674	229	140
27	86	229	229	241	6,640	1,270	920	335	339	728	208	140
28	86	210	220	241	3,930	1,180	860	347	287	584	195	175
29	89	190	208	1,110	3,530	1,540	794	391	265	466	195	166
30	88	170	205	4,600	-------	3,570	740	415	244	538	185	154
31	86	-------	200	6,620	-------	3,500	-------	483	----	836	175	----
Total	4,045	5,649	14,061	17,171	141,720	103,840	97,744	28,306	12,827	20,909	9,094	5,625
Mean	130	188	454	554	4,887	3,350	3,258	913	428	674	293	188
Cfsm	0.190	0.274	0.663	0.809	7.13	4.89	4.76	1.33	0.625	0.984	0.428	0.274
In.	0.22	0.31	0.76	0.93	7.69	5.64	5.31	1.54	0.70	1.14	0.49	0.31

Calendar year 1955: Max 13,100 Min 60 Mean 1,038 Cfsm 1.52 In. 20.56
Water year 1955-56: Max 16,400 Min 84 Mean 1,260 Cfsm 1.84 In. 25.04

Peak discharge (base, 9,000 cfs).--Feb. 8 (5 a.m.) 10,400 cfs (12.71 ft); Feb. 19 (7 p.m.) 11,700 cfs (13.90 ft); Apr. 17 (10 a.m.) 18,500 cfs (18.96 ft).
* Discharge measurement made on this day.

Clinch River below Norris Dam, Tenn.

Location.--Lat 36°12'56", long 84°04'56", 0.5 mile upstream from Clear Creek, 1.0 mile downstream from Norris Dam, 1.5 miles north of Norris, Anderson County, and at mile 78.8.

Drainage area.--2,913 sq mi.

Records available.--October 1918 to September 1927 (published as "at Clinton"), May 1927 to September 1937 (published as "near Coal Creek"), and April 1936 to September 1956 in reports of Geological Survey. October 1903 to September 1924 (published as "at Clinton"), in Bulletin 34 of Tennessee Division of Geology. Gage-height records collected in vicinity of Clinton from 1884 to 1943 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder at present site and datum since Jan. 28, 1937. Datum of gage is 819.11 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Oct. 1, 1903, to June 30, 1920, staff gage at railroad bridge 19.6 miles downstream at datum 42.49 ft lower. July 1, 1920, to Sept. 30, 1927, chain gage at highway bridge 19.8 miles downstream (1,000 ft downstream from previous site) at datum 42.59 ft lower. May 27 to Sept. 8, 1927, staff gage and Sept. 9, 1927, to Sept. 30, 1935, water-stage recorder, at site 2.9 miles downstream at datum 10.50 ft lower. Oct. 1, 1935, to Sept. 30, 1937, water-stage recorder at site 2.9 miles downstream at datum 13.50 ft lower. Apr. 16, 1936, to Jan. 27, 1937, staff gage at present site and datum.

Average discharge.--53 years, 4,320 cfs (unadjusted).

Extremes.--Maximum discharge during year, 17,200 cfs Mar. 15 (gage height, 8.43 ft); minimum, 28 cfs Oct. 1-3; minimum gage height, 1.17 ft Jan. 26, 27; minimum daily discharge, 28 cfs Oct. 2

1903-56: Maximum discharge, 87,000 cfs Mar. 5, 1917 (gage height, 38.5 ft, from graph based on gage readings, site and datum then in use), from rating curve extended above 62,000 cfs; minimum, 1.3 cfs May 17, 18, 20, 24-26, May 29 to June 5, 1936 (gage height, 0.62 ft); minimum daily, 1.3 cfs May 17, 18, 24-26, May 29 to June 4, 1936.

Flood of Mar. 31, 1886, reached a stage of 45 ft (discharge, 113,000 cfs) at Clinton.

Remarks.--Records good. Flow completely regulated by Norris Lake (see p. 228).

Revisions (water years).--WSP 1336: 1917-18, 1928.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-19)

1.0	22	2.0	880
1.1	30	2.5	1,640
1.2	50	3.0	2,520
1.3	95	4.0	4,580
1.4	160	6.0	9,900
1.6	360	8.4	17,100

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	6,560	4,630	3,420	50	1,690	5,900	3,960	*4,740	4,130	5,270	3,840
2	28	6,670	2,070	3,460	57	939	5,440	3,310	4,890	4,870	5,500	4,810
3	4,330	*6,740	65	3,570	61	2,220	*5,800	2,580	4,700	4,830	6,680	5,490
4	*6,180	6,900	201	5,440	65	2,080	4,450	2,790	5,520	2,200	5,560	6,380
5	6,180	6,900	457	*5,880	61	6,400	1,910	302	6,110	4,800	5,920	6,560
6	6,180	6,820	61	4,280	65	*8,020	95	108	5,240	*4,820	5,920	6,410
7	5,800	6,820	61	4,040	61	8,100	89	2,380	5,200	4,840	6,020	5,950
8	6,150	6,800	61	5,580	73	7,960	84	2,630	5,090	3,560	6,170	4,800
9	6,180	6,720	710	5,460	61	7,990	2,700	1,570	5,170	4,870	6,210	4,680
10	6,350	6,800	3,700	5,440	61	10,400	5,130	*114	1,940	3,760	6,480	5,580
11	6,430	6,640	2,560	5,940	61	12,600	2,260	102	4,750	3,280	5,980	5,390
12	6,460	6,610	5,840	5,270	61	*12,600	3,080	2,210	4,000	2,720	5,340	*5,680
13	6,510	4,820	4,040	5,250	61	12,800	5,100	2,820	3,760	3,700	6,170	6,410
14	6,460	4,990	3,740	6,160	61	14,000	3,200	6,180	4,060	3,900	*7,090	6,380
15	6,510	5,090	*4,620	5,060	110	16,800	1,080	6,300	4,050	3,710	6,190	6,220
16	6,250	3,880	5,730	3,670	65	16,800	95	6,280	4,460	5,200	6,070	3,930
17	6,200	5,260	4,980	4,790	74	16,900	89	6,300	3,560	5,150	6,030	5,300
18	6,250	5,530	3,980	4,400	79	14,600	84	6,330	4,790	5,930	6,020	5,370
19	6,000	5,860	2,800	3,480	74	10,900	1,760	5,260	5,640	3,260	5,520	5,760
20	6,460	6,080	2,750	3,470	69	8,680	1,650	4,470	4,940	3,200	4,740	5,420
21	6,510	2,820	2,910	1,000	110	8,450	294	6,350	6,260	4,600	5,380	5,520
22	6,510	2,140	2,380	554	246	6,720	4,300	6,380	3,910	4,480	5,440	5,430
23	5,650	2,050	2,940	2,030	79	6,010	*5,970	6,330	2,820	5,440	5,890	4,260
24	5,910	1,460	60	1,550	84	6,340	5,680	3,340	2,760	5,370	6,230	5,960
25	6,300	1,570	50	434	89	6,590	5,500	3,380	2,940	4,920	6,060	6,070
26	6,350	1,490	2,920	42	89	6,250	5,970	3,400	2,830	5,300	4,870	6,250
27	6,380	65	3,630	42	487	3,380	5,300	3,400	2,470	5,320	4,740	6,220
28	6,410	2,380	71	45	2,150	2,600	5,070	6,300	2,420	5,330	5,480	6,220
29	6,460	2,980	225	48	1,890	5,680	4,640	5,580	4,400	5,050	5,530	6,220
30	6,460	4,540	1,490	53	-------	5,900	4,130	5,250	4,370	5,440	5,960	6,020
31	6,510	-------	3,160	116	-------	5,920	-------	5,100	-------	5,320	5,570	-------
Total	180,387	143,785	72,892	98,974	6,554	256,259	96,850	120,806	127,790	139,300	180,010	168,530
Mean	5.819	4,793	2,351	3,193	226	8,266	3,228	3,897	4,260	4,494	5,807	5,618

	Observed			Adjusted†		
Calendar year 1955:	Max 18,900	Min 28	Mean 4,257	Mean 3,922	Cfsm 1.35	In. 18.27
Water year 1955-56:	Max 16,900	Min 28	Mean 4,350	Mean 4,592	Cfsm 1.58	In. 21.46

* Discharge measurement made on this day.

† Adjusted for change in contents in Norris Lake.

Clinch River near Scarboro, Tenn.

Location.--Lat 35°56'45", long 84°13'17", on right bank 0.6 mile downstream from Beaver Creek, 2½ miles south of Scarboro, Anderson County, 4¼ miles downstream from Solway Bridge, and 17 miles west of Knoxville.

Drainage area.--3,300 sq mi.

Records available.--September 1936 to September 1956. Published as "near Wheat" September 1936 to January 1941.

Gage.--Water-stage recorder. Datum of gage is 753.35 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Feb. 1, 1941, at site 24.5 miles downstream at datum 35.99 ft lower.

Average discharge.--20 years, 4,502 cfs (unadjusted†).

Extremes.--Maximum discharge during year, 20,800 cfs Mar. 16 (gage height, 11.91 ft); minimum, 175 cfs Oct. 3 (gage height, 1.10 ft); minimum daily, 314 cfs Jan. 28.
1936-56: Maximum discharge, 42,900 cfs Feb. 9, 1937 (gage height, 23.45 ft, site and datum then in use), from rating curve extended above 27,000 cfs; minimum, 111 cfs Oct. 27, 28, 1947; minimum daily, 131 cfs Jan. 23, 1941.

Remarks.--Records good. Flow regulated by Norris Lake, 41 miles upstream (see p. 228). The town of Oak Ridge diverts an average of about 25 cfs for municipal supply, 2½ miles above station.

Revisions (water years).--WSP 1386: 1937.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.3	314	5.0	6,990
1.5	501	9.0	15,000
2.0	1,160	12.0	21,000
3.0	2,990		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,650	*6,450	*4,650	3,950	*1,930	*2,550	6,410	*4,040	*5,250	4,250	*5,030	3,710
2	366	6,570	3,510	2,940	2,050	2,530	*6,190	4,010	4,850	*4,290	5,150	5,090
3	*479	6,650	2,160	*3,570	6,010	2,220	7,050	4,290	4,630	4,750	5,730	4,630
4	6,350	6,790	2,640	4,930	6,210	4,310	10,600	3,610	5,110	4,220	5,970	*5,930
5	6,390	6,910	3,990	5,910	4,910	4,990	8,350	3,040	5,790	2,850	5,830	6,250
6	6,410	6,830	1,950	4,650	4,170	8,970	4,050	886	5,730	4,890	5,790	6,750
7	6,570	6,790	844	4,120	4,650	9,210	4,830	2,340	5,130	4,870	5,530	6,050
8	6,430	6,770	604	5,530	2,760	11,600	2,740	1,990	5,010	4,670	5,850	5,970
9	6,650	6,710	501	5,550	1,890	11,000	2,360	2,970	5,130	4,070	6,030	4,030
10	6,590	6,730	2,000	5,470	1,440	10,300	4,810	1,910	3,770	4,690	6,450	4,540
11	6,590	6,710	3,550	5,450	1,320	13,800	5,110	547	3,300	3,750	5,850	5,130
12	6,650	6,590	4,290	5,930	1,400	*14,100	4,350	575	4,570	3,220	5,410	5,390
13	6,710	5,010	5,090	5,310	1,140	14,300	4,870	2,700	3,550	2,730	5,670	6,150
14	6,710	4,990	3,980	5,250	954	15,900	5,290	4,690	4,270	3,870	6,730	6,230
15	6,730	5,150	4,330	5,070	857	19,800	5,660	6,570	4,090	3,870	6,250	6,010
16	6,590	5,070	6,010	3,990	844	*20,500	10,700	6,550	4,350	4,750	5,870	4,630
17	6,370	4,250	5,230	4,830	1,800	20,200	5,350	6,490	4,050	5,330	5,910	4,350
18	6,370	5,630	4,370	4,570	6,790	19,000	2,690	6,470	4,130	5,530	5,750	4,830
19	6,350	5,790	4,130	3,610	4,930	14,600	1,870	5,750	4,830	4,810	5,350	5,510
20	6,170	5,450	3,010	3,630	3,370	10,200	3,350	5,110	5,310	2,990	5,850	5,150
21	6,490	4,430	2,930	3,310	2,610	*9,570	2,300	5,630	5,970	3,640	4,430	5,210
22	6,530	2,390	3,100	1,090	1,960	8,430	1,170	6,470	4,480	4,990	5,930	5,150
23	5,870	2,750	2,650	764	1,600	7,070	6,150	6,530	3,780	4,510	5,050	4,390
24	5,730	2,830	2,810	2,230	1,300	6,250	6,370	4,990	3,050	5,950	6,190	5,530
25	6,170	1,940	426	1,820	1,890	7,330	5,910	3,510	2,780	4,870	5,910	5,810
26	6,190	1,940	474	780	2,530	7,050	6,350	3,490	3,280	5,070	5,130	5,990
27	6,230	1,550	2,960	341	1,780	5,390	5,370	3,490	2,860	5,050	4,570	6,010
28	6,270	391	3,360	314	2,370	3,230	5,650	4,870	2,420	5,050	5,390	6,010
29	6,370	2,590	386	1,710	2,560	4,910	5,070	5,750	3,100	4,970	5,350	6,030
30	6,370	4,150	323	5,390	-------	6,710	5,030	5,310	4,390	5,050	5,810	5,850
31	6,390	-------	1,920	3,810	-------	6,490	-------	5,350	-------	5,050	5,490	-------
Total	183,735	146,801	88,178	115,819	78,025	302,510	156,600	129,928	128,960	138,600	175,150	162,300
Mean	5,927	4,893	2,844	3,736	2,691	9,758	5,220	4,191	4,299	4,471	5,650	5,410

	Observed						Adjusted†					
Calendar year 1955 :	Max	24,500	Min	218	Mean	4,746	Mean	4,411	Cfsm	1.34	In.	18.14
Water year 1955-56 :	Max	20,500	Min	314	Mean	4,936	Mean	5,178	Cfsm	1.57	In.	21.36

* Discharge measurement made on this day.
† Adjusted for change in contents in Norris Lake.

Whiteoak Creek below Oak Ridge National Laboratory, near Oak Ridge, Tenn.

Location.--Lat 35°54'44", long 84°18'59", on right bank 0.1 mile upstream from Melton Branch, 1 mile south of Oak Ridge National Laboratory, Roane County, and 7 miles south of Oak Ridge, Tenn.
Drainage area.--3.62 sq mi.
Records available.--June 1950 to July 1953, July 1955 to September 1956.
Gage.--Water-stage recorder. Datum of gage is 750.37 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.
Extremes.--1955: Maximum discharge during period July to September, 149 cfs July 25 (gage height, 4.07 ft); minimum, 3.2 cfs July 23, 24 (gage height, 0.69 ft).
1955-56: Maximum discharge during water year, 321 cfs Apr. 4 (gage height, 4.70 ft); minimum, 3.4 cfs Jan. 22 (gage height, 0.68 ft).
1950-53, 1955-56: Maximum discharge recorded, 642 cfs Aug. 30, 1950 (gage height, 5.18 ft), from rating curve extended above 230 cfs, but may have been higher Aug. 2, 1950; minimum, 1.9 cfs Oct. 2, 1950; minimum gage height, 0.64 ft July 2, 9-11, 1950, Oct. 28, Nov. 4, 1952.
Remarks.--Records good. Natural flow of stream affected by operations of Oak Ridge National Laboratory.

Rating table, July 15, 1955, to Sept. 30, 1956 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 28-30, Dec. 4-18, 1955, Jan. 29 to Feb. 2, Apr. 2 to June 18, 1956)

0.7	3.8	3.0	58
1.0	9.8	4.0	139
2.0	30		

Discharge, in cubic feet per second, 1955

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	*5.6	*5.0	9	-	5.2	4.6	17	3.6	5.2	4.4	25	7.2	5.0	6.0
2	-	5.2	4.8	10	-	5.4	4.2	18	3.8	5.0	4.8	26	5.8	5.2	*6.0
3	-	5.2	4.4	11	-	5.4	4.4	19	4.2	5.0	5.4	27	6.0	4.6	5.4
4	-	5.2	4.2	12	-	5.2	4.4	20	4.2	4.6	5.0	28	9.2	4.6	8.7
5	-	5.2	4.2	13	-	4.6	4.2	21	7.8	5.2	5.4	29	6.2	4.8	7.6
6	-	5.2	4.2	14	-	4.6	4.4	22	4.4	5.4	5.2	30	5.6	5.2	*14
7	-	5.2	4.6	15	3.8	*5.2	4.6	23	3.8	5.2	5.4	31	5.4	4.8	-
8	-	5.2	4.6	16	3.6	5.0	4.6	24	14	5.4	6.4				
Total													-	157.8	161.1
Mean													-	5.09	5.37

Peak discharge (base, 280 cfs).--No peak above base.
* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	*4.6	*4.4	4.0	*16	*8.0	5.8	*5.6	*6.7	4.6	*6.2	9.3
2	4.4	4.8	5.4	4.2	41	9.4	*19	6.8	4.8	*4.4	7.0	5.6
3	*4.4	5.0	5.2	*4.4	93	10	9.2	18	4.8	5.0	6.0	4.6
4	4.2	4.0	45	4.4	53	8.8	69	9.2	5.0	5.4	6.0	*5.2
5	4.4	3.8	*13	4.4	31	8.8	23	7.6	5.0	5.0	6.0	5.4
6	4.4	3.8	9.4	4.4	56	8.8	52	9.4	5.0	13	6.0	9.8
7	9.0	4.2	8.6	3.8	28	19	28	8.4	5.0	6.8	5.8	5.6
8	5.4	4.2	7.8	3.8	19	51	16	7.4	5.4	6.6	5.8	4.8
9	4.2	4.2	7.4	4.0	17	21	11	6.8	4.8	10	5.8	4.6
10	4.6	5.2	6.8	4.0	14	15	9.6	6.6	4.8	8.2	5.8	4.8
11	4.6	4.4	6.6	4.2	17	13	15	6.2	5.0	6.0	5.4	5.2
12	4.4	3.8	6.6	4.2	14	13	9.8	6.0	5.4	5.8	5.4	5.2
13	4.6	4.0	6.6	4.0	13	14	8.8	6.2	5.4	6.8	6.0	5.4
14	4.2	5.8	6.6	3.8	12	39	8.2	6.4	5.6	8.4	5.8	5.4
15	3.8	4.6	6.6	3.8	13	37	75	5.2	5.6	6.8	5.8	5.0
16	4.0	7.6	6.4	4.2	13	*54	52	4.0	5.4	6.6	5.8	5.0
17	4.2	4.8	6.4	4.0	43	26	25	4.2	5.4	6.2	5.8	5.2
18	4.2	4.2	8.3	4.0	*49	18	16	4.2	*5.1	6.0	5.8	4.8
19	4.4	8.6	5.2	5.0	25	13	12	4.2	5.2	6.2	5.6	4.8
20	4.4	4.4	4.8	4.2	*30	11	10	4.0	5.4	7.6	5.8	5.0
21	4.4	4.4	4.8	3.8	*18	9.6	8.8	4.2	5.6	6.0	5.6	4.8
22	4.4	4.4	4.8	3.8	13	*9.2	8.4	4.6	5.4	6.0	5.0	4.6
23	4.6	16	4.8	5.6	11	8.8	8.2	5.0	6.0	6.4	5.2	5.8
24	4.8	5.8	4.8	7.4	14	8.2	7.6	4.2	4.8	7.3	5.6	5.4
25	4.6	6.0	4.6	7.2	17	7.2	7.4	3.8	5.0	6.6	5.4	5.2
26	4.8	5.0	4.2	6.4	12	7.2	7.0	3.8	4.4	6.0	5.4	5.0
27	4.8	4.6	4.4	6.0	12	7.0	6.8	3.8	4.4	6.2	5.0	5.0
28	5.2	4.6	4.4	8.6	10	6.8	6.4	4.4	4.8	6.0	6.0	5.0
29	5.2	4.4	4.6	43	8.8	7.4	6.0	4.0	5.2	5.8	6.6	4.8
30	4.6	4.4	4.6	*46	-------	6.2	5.8	3.8	4.8	6.0	5.6	5.0
31	4.6	-- ---	4.2	19	-------	5.8	-------	4.6	-------	5.8	5.8	----- --
Total	144.4	155.6	227.3	238.6	712.8	481.2	546.8	182.6	155.2	201.5	178.8	161.3
Mean	4.66	5.19	7.33	7.70	24.6	15.5	18.2	5.89	5.17	6.50	5.77	5.38
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max - Min - Mean - Cfsm - In.
Water year 1955-56: Max 93 Min 3.8 Mean 9.25 Cfsm - In. -

Peak discharge (base, 280 cfs).--Apr. 4 (5 a.m.) 321 cfs (4.70 ft).
* Discharge measurement made on this day.

Melton Branch near Oak Ridge, Tenn.

Location.--Lat 35°54'38", long 84°18'54", on right bank 0.1 mile above mouth, 1 mile south of Oak Ridge National Laboratory, Roane County, and 7 miles south of Oak Ridge, Anderson County.
Drainage area.--1.48 sq mi.
Records available.--August 1955 to September 1956.
Gage.--Water-stage recorder. Datum of gage is 751.90 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.
Extremes.--1955: Maximum discharge during period August to September, 3.0 cfs Sept. 30 (gage height, 1.24 ft); no flow Aug. 24-29, Aug. 31 to Sept. 6, Sept. 8-19, 21-27.
1955-56: Maximum discharge during water year, 98 cfs Feb. 3, Apr. 4; maximum gage height, 4.11 ft Apr. 4; no flow for many days during October and November.
Remarks.--Records good. Natural flow affected by operations of Oak Ridge National Laboratory.

Rating tables, Aug. 23, 1955, to Sept. 30, 1956 (gage height, in feet, and discharge, in cubic feet per second)

Aug. 23, 1955, to Feb. 3, 1956

0.5	0	1.4	7.8
.7	.1	1.5	12
.9	.2	1.6	16
1.0	.4	1.8	21
1.1	.8	2.1	28
1.2	2.0	2.7	46
1.3	4.5		

Feb. 3 to Sept. 30, 1956

1.5	12
1.7	22
2.1	32

Note.--Same as preceding table below 1.5 ft.

Discharge, in cubic feet per second, 1955

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	*0	9	-	0	17	-	0	25	0	0
2	-	0	10	-	0	18	-	0	26	0	0
3	-	0	11	-	0	19	-	0	27	0	0
4	-	0	12	-	0	20	-	.2	28	0	.1
5	-	0	13	-	0	21	-	0	29	*0	.1
6	-	0	14	-	0	22	-	0	30	.1	*.7
7	-	.1	15	-	0	23	0.1	0	31	0	-
8	-	0	16	-	0	24	0	0			
Total										-	1.2
Mean										-	0.04

Peak discharge (base, 86 cfs).--No peak above base.
* Discharge measurement or observation of no flow made on this day.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	*0	*0.1	0.1	*4.0	*1.8	0.8	*0.6	*0.4	0.1	*0.1	0.2
2	0	0	.3	.1	19	2.0	*7.5	1.0	.1	*.1	.1	.1
3	*0	0	.2	*.1	46	2.0	4.8	8.1	.1	.2	.1	.1
4	0	0	16	.1	19	2.0	29	3.2	.1	.2	.3	*.1
5	0	0	*2.6	.1	8.6	1.8	5.8	1.7	.1	.1	.1	.1
6	0	0	1.1	.1	23	1.5	22	2.2	.1	.9	.1	.5
7	.3	0	.8	.1	7.5	4.1	7.6	2.8	.1	.1	.1	.2
8	.1	0	.6	.1	3.5	27	3.8	1.7	.2	.1	.1	.1
9	0	0	.3	.1	2.8	5.5	2.2	1.2	.1	.4	.1	.1
10	0	.1	.2	.1	1.8	3.0	1.8	1.0	.1	.2	.1	.1
11	0	.1	.2	.1	3.1	2.0	4.1	.8	.2	.1	.1	.1
12	0	0	.2	.1	2.2	1.8	3.0	.6	.2	.2	.1	.1
13	0	0	.2	.1	2.0	2.8	2.0	.4	.1	.2	.1	.1
14	0	.1	.2	.1	1.8	17	1.7	.4	.2	.4	.1	.1
15	0	.1	.2	.1	1.4	15	31	.4	.2	.2	.1	.1
16	0	.2	.1	.1	1.4	*24	17	.3	.2	.2	.1	.1
17	0	.1	.1	.1	21	7.9	6.8	.3	.2	.2	.1	.1
18	.1	.1	.6	.1	*21	4.5	4.0	.2	.2	.1	.1	.1
19	0	.3	.7	.2	6.2	2.8	2.5	.1	.2	.1	.1	.1
20	0	.1	.4	.2	*8.3	1.9	1.8	.1	.1	.2	.1	.1
21	0	.1	.4	.2	*4.5	1.7	1.4	.1	.2	.1	.1	.2
22	0	0	.3	.2	2.8	*1.5	1.3	.2	.1	.1	.1	.1
23	0	1.5	.3	.4	2.0	1.4	1.2	.2	.2	.1	.1	.2
24	0	.4	.2	.8	3.1	1.3	1.1	.2	.1	.1	.1	.1
25	0	.3	.2	1.0	5.7	1.1	1.0	.2	.1	.1	.1	.1
26	0	.3	.2	1.2	4.2	1.1	.8	.2	.2	.1	.1	.2
27	0	.2	.2	1.1	3.5	1.0	.8	.2	.1	.1	.1	.2
28	0	.2	.2	1.5	2.8	1.0	.7	.2	.1	.1	.2	.1
29	.1	.1	.2	29	1.8	1.5	.5	.2	.1	.1	.2	.1
30	0	.1	.2	*25	------	1.0	.7	.2	.1	.1	.2	.1
31	0	-------	.1	5.5	-------	.8	-------	.2	-------	.1	.2	-------
Total	0.7	4.4	27.6	68.1	234.0	143.8	168.7	29.2	4.5	5.4	3.7	4.0
Mean	0.02	0.15	0.89	2.20	8.07	4.64	5.62	0.94	0.15	0.17	0.12	0.13
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max - Min - Mean - Cfsm - In. -
Water year 1955-56: Max 46 Min 0 Mean 1.90 Cfsm - In. -

Peak discharge (base, 86 cfs).--Feb. 3 (7 a.m.) 98 cfs (4.09 ft); Apr. 4 (6 a.m.) 98 cfs (4.11 ft); Apr. 15 (5 p.m.) 93 cfs (3.97 ft).
* Discharge measurement made on this day.

Emory River near Wartburg, Tenn.

Location.--Lat 36°06'46", long 84°36'54", on right bank 50 ft downstream from county highway bridge on Wartburg-Lancing Road, 1.1 miles downstream from Rock Creek, 1¼ miles northwest of Wartburg, Morgan County, and 6.1 miles upstream from Obed River, and at mile 34.5.

Drainage area.--83.2 sq mi.

Records available.--May 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,003.06 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--22 years, 145 cfs.

Extremes.--Maximum discharge during year, 5,540 cfs Feb. 18 (gage height, 14.22 ft); minimum, 0.2 cfs Sept. 21-23; minimum gage height, 1.17 ft Sept. 23.
1934-56: Maximum discharge, 18,700 cfs Feb. 3, 1939 (gage height, 25.62 ft), from rating curve extended above 7,700 cfs; no flow at times in most years.

Remarks.--Records good except those below 1 cfs, which are poor.

Revisions (water years).--WSP 823: Drainage area. WSP 1386: 1935.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 26 to Nov. 16)

Oct. 1 to Nov. 19

1.3	2.8	2.0	83
1.4	6.6	2.5	179
1.5	13	3.0	281
1.7	36	4.0	526

Nov. 19 to Sept. 30

1.1	0	2.0	71
1.2	1.2	3.0	280
1.3	3.6	4.0	555
1.4	7.1	6.0	1,220
1.6	18	8.0	2,030
1.8	40	11.0	3,550

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	5.0	51	39	444	216	66	41	47	4.8	6.3	5.9
2	41	*5.0	*61	38	*930	*232	429	*187	56	3.9	*13	4.5
3	23	5.0	71	36	*2,670	510	*693	836	36	*3.6	39	3.9
4	*15	5.0	2,420	*34	2,050	848	1,260	714	*26	3.3	18	3.0
5	9.9	5.4	986	33	1,160	444	657	360	19	4.2	12	*2.6
6	7.1	5.4	402	32	1,220	300	844	536	16	3.6	8.5	4.8
7	162	6.2	254	30	886	243	752	562	13	3.3	5.9	6.3
8	354	6.2	179	28	459	866	405	320	12	3.0	4.8	4.5
9	129	5.8	166	24	308	555	262	218	10	3.3	3.9	3.6
10	72	6.6	134	24	223	348	194	160	9.0	3.6	3.0	2.8
11	48	7.6	116	25	365	254	223	122	8.0	3.6	2.8	2.3
12	35	8.1	100	26	392	247	207	94	7.1	3.0	2.3	1.8
13	29	7.6	86	25	295	525	185	73	6.3	3.3	1.8	1.6
14	26	38	75	22	227	2,300	162	59	5.6	51	1.6	1.2
15	22	63	68	21	203	861	983	80	5.2	82	1.4	1.0
16	21	96	57	21	196	558	1,960	84	4.5	139	1.1	.8
17	16	203	51	21	2,170	450	621	57	3.9	324	1.0	.5
18	16	123	68	20	3,280	342	362	44	3.6	116	.8	.5
19	15	410	96	24	910	247	245	36	3.9	59	.6	.5
20	13	312	98	40	784	181	181	30	5.9	34	23	.4
21	11	181	100	44	483	144	138	26	6.3	25	14	.2
22	9.9	122	96	44	315	118	114	22	5.6	18	9.0	.2
23	9.3	118	88	59	227	98	100	18	4.8	13	5.6	2.0
24	7.6	142	77	79	227	98	79	17	4.2	11	3.6	74
25	8.1	134	68	86	385	84	66	17	3.9	10	2.8	17
26	8.7	136	56	94	513	73	57	16	38	9.5	2.0	9.5
27	8.1	122	48	91	372	69	53	14	16	8.0	1.8	6.7
28	7.1	106	44	129	335	62	47	15	10	6.7	1.8	4.8
29	7.1	80	39	1,700	260	73	44	33	7.1	5.9	16	3.9
30	6.2	64	40	3,050	------	71	41	27	5.6	6.3	10	3.0
31	5.4	--	43	819	------	68	------	20	------	6.7	7.6	------
Total	1,242.5	2,528.9	6,238	6,758	22,289	11,485	11,430	4,838	399.5	971.6	225.0	173.8
Mean	40.1	84.3	201	218	769	370	381	156	13.3	31.3	7.26	5.79
Cfsm	0.482	1.01	2.42	2.62	9.24	4.45	4.58	1.88	0.160	0.376	0.087	0.070
In.	0.56	1.13	2.79	3.02	9.96	5.13	5.11	2.16	0.18	0.43	0.10	0.08

Calendar year 1955: Max 5,460 Min 0.9 Mean 154 Cfsm 1.85 In. 25.09
Water year 1955-56: Max 3,280 Min 0.2 Mean 187 Cfsm 2.25 In. 30.65

Peak discharge (base, 3,600 cfs).--Dec. 4 (4:30 p.m.) 3,690 cfs (11.25 ft); Jan. 30 (3 a.m.) 4,130 cfs (12.01 ft); Feb. 3 (11 a.m.) 4,120 cfs (12.00 ft); Feb. 18 (9 a.m.) 5,540 cfs (14.22 ft); Mar. 14 (12:30 p.m.) 3,620 cfs (11.12 ft); Apr. 16 (2 p.m.) 3,750 cfs (11.36 ft).
* Discharge measurement made on this day.

Daddys Creek near Crab Orchard, Tenn.

Location.--Lat 35°55'33", long 84°54'47", on left bank 0.6 mile upstream from North Creek, 1.5 miles downstream from bridge on U. S. Highway 70, 1.5 miles downstream from Bird Creek, and 2 miles northwest of Crab Orchard, Cumberland County.

Drainage area.--93.5 sq mi.

Records available.--October 1930 to September 1956. Prior to October 1952, published as Daddy Creek near Crab Orchard.

Gage.--Water-stage recorder. Datum of gage is 1,569.19 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to May 17, 1934, staff gage at same site and datum.

Average discharge.--26 years, 169 cfs.

Extremes.--Maximum discharge during year, 4,580 cfs Feb. 18 (gage height, 12.69 ft); minimum, 1.5 cfs Oct. 20-22, Sept. 20; minimum gage height, 0.61 ft Sept. 20.
1930-56: Maximum discharge, 11,600 cfs Feb. 13, 1948 (gage height, 21.30 ft); no flow Sept. 23, 24, 1936, Sept. 11-22, 1954.

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

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 30				Jan. 31 to Sept. 30			
0.7	1.2	2.8	200	0.6	1.4	2.0	93
.8	2.7	3.5	338	.7	2.8	2.5	156
.9	5.2	6.0	1,040	.8	4.2	3.5	356
1.1	14	8.0	1,880	.9	6.6	5.0	754
1.5	38	10.2	3,040	1.0	9.8	7.0	1,430
2.0	85			1.1	14	10.4	3,150
				1.5	42		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	5.6	39	46	642	213	90	78	115	4.0	29	4.2
2	5.6	5.0	42	43	838	290	500	212	127	18	86	4.0
3	4.4	4.7	68	41	2,910	344	1,000	511	86	15	115	3.8
4	3.2	4.0	1,870	38	2,590	392	1,500	446	75	23	102	3.2
5	2.7	3.7	1,430	35	1,480	326	1,000	297	51	24	97	2.8
6	2.4	3.7	559	32	1,230	262	800	213	36	40	65	3.0
7	4.0	3.7	293	32	925	226	800	244	31	67	44	4.4
8	17	3.7	210	29	582	470	500	270	25	132	30	4.3
9	9.9	3.7	192	29	431	459	400	200	20	198	22	4.6
10	5.2	4.0	160	26	349	342	300	150	18	246	16	6.2
11	3.4	4.4	130	25	441	264	250	130	14	118	12	4.6
12	2.6	4.7	109	25	480	230	250	110	10	71	10	*4.0
13	2.4	5.0	92	25	409	299	200	90	8.8	133	8.5	3.4
14	2.1	9.9	81	24	328	1,190	170	80	7.9	602	6.9	2.9
15	2.0	16	73	23	281	937	2,000	70	7.6	422	5.9	2.8
16	1.8	12	64	22	264	859	1,400	100	6.9	*784	*4.8	2.1
17	1.6	26	57	20	1,310	820	1,000	80	5.6	808	4.3	2.1
18	1.6	17	74	*19	3,120	538	600	65	*4.8	333	4.0	1.8
19	1.6	52	134	27	1,200	387	400	50	23	184	3.8	1.7
20	*1.5	83	131	51	811	266	300	40	160	109	3.4	1.7
21	1.5	58	118	59	*592	230	240	30	32	92	3.6	1.7
22	1.5	42	104	53	426	*189	200	*24	30	66	3.6	1.8
23	1.8	88	*93	59	308	158	160	21	24	48	3.8	1.9
24	2.0	190	86	90	344	145	140	20	18	56	3.3	5.3
25	2.0	137	80	92	530	134	*116	17	12	71	3.0	5.3
26	2.0	116	71	97	598	120	104	15	9.2	51	2.8	4.4
27	2.2	93	62	95	459	109	95	13	7.2	36	3.0	3.6
28	2.7	72	56	120	387	100	85	21	5.6	28	7.8	2.9
29	4.4	*55	51	996	288	108	76	52	4.6	97	5.6	2.4
30	6.0	43	49	*3,020	-------	150	75	146	3.9	63	4.3	2.1
31	5.6	------	49	1,220	-------	120	-------	115	-------	38	3.9	-------
Total	115.7	1,165.8	6,627	6,513	24,553	10,677	14,751	3,910	979.1	4,977.0	714.3	98.8
Mean	3.73	38.9	214	210	847	344	492	126	32.6	161	23.0	3.29
Cfsm	0.040	0.416	2.29	2.25	9.06	3.68	5.26	1.35	0.349	1.72	0.246	0.035
In.	0.05	0.46	2.64	2.59	9.77	4.25	5.87	1.56	0.39	1.98	0.28	0.04

Calendar year 1955: Max 4,800 Min 1.5 Mean 180 Cfsm 1.71 In. 23.24
Water year 1955-56: Max 3,120 Min 1.5 Mean 205 Cfsm 2.19 In. 29.88

Peak discharge (base, 1,700 cfs).--Dec. 4 (3:30 p.m.) 2,710 cfs (9.60 ft); Jan 30 (10:30 a.m.) 3,580 cfs (11.11 ft); Feb. 3 (10:30 a.m.) 4,190 cfs (12.09 ft); Feb. 18 (7:30 a.m.) 4,580 cfs (12.69 ft); Apr. 4 (time unknown) 1,930 cfs (8.10 ft); Apr. 15 or 16 (time unknown) 3,330 cfs (10.70 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Mar. 30 to Apr. 24, May 9-21; discharge estimated on basis of recorded range in stage, weather records, and records for stations on nearby streams.

Emory River at Oakdale, Tenn.

Location.--Lat 35°58'59", long 84°33'29", at Oakdale, Morgan County, 1,000 ft downstream from highway bridge and 1,100 ft downstream from Mud Lick Creek.

Drainage area.--764 sq mi.

Records available.--June 1927 to September 1956. Prior to October 1929, published as Emery River at Harriman and October 1929 to September 1934 as Emery River at Oakdale.

Gage.--Water-stage recorder. Datum of gage is 763.38 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 1, 1929, staff gage at site 5.8 miles downstream at datum 45.60 ft lower.

Average discharge.--29 years, 1,387 cfs.

Extremes.--Maximum discharge during year, 41,600 cfs Feb. 18 (gage height, 20.58 ft); minimum, 6.4 cfs Sept. 23 (gage height, 1.08 ft).

1927-56: Maximum discharge, 195,000 cfs Mar. 23, 1929 (gage height, about 42.3 ft, present site and datum, and 61.1 ft, site and datum then in use, from floodmarks), from rating curve extended above 85,000 cfs by logarithmic plotting; no flow at times in 1944, 1952-53.

Maximum stage known, that of Mar. 23, 1929.

Remarks.--Records good.

Revisions (water years).--WSP 823: Drainage area. WSP 923: 1940. WSP 1386: 1928-30(M), 1932, 1943, 1945(P).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.0	4.4	3.0	560
1.1	7.7	4.0	1,330
1.3	18	6.0	3,300
1.6	47	8.0	5,860
1.9	90	11.0	11,300
2.3	180	15.0	20,400
2.6	310	18.0	30,400

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	286	16	377	360	5,270	2,320	952	644	413	29	175	82
2	110	*15	*360	343	*6,640	*2,310	3,440	*716	432	29	*136	66
3	70	15	451	321	21,400	2,880	*7,580	2,630	401	*24	472	51
4	*52	15	9,170	*300	19,000	5,580	13,300	3,170	*285	33	544	43
5	43	14	9,840	270	13,800	3,830	8,770	2,290	215	36	537	*36
6	38	13	4,270	256	10,400	2,920	7,460	1,850	175	40	451	37
7	73	12	2,570	242	8,510	2,430	8,090	2,210	148	187	251	55
8	826	12	1,840	224	5,000	4,410	4,640	1,730	125	220	172	45
9	326	12	1,570	201	3,550	4,230	3,190	1,410	104	260	125	52
10	175	12	1,440	177	2,760	3,170	2,460	1,140	90	451	97	47
11	123	13	1,210	184	3,160	2,530	2,360	968	76	444	77	38
12	95	14	1,050	194	3,630	2,390	2,370	805	68	251	64	31
13	77	15	912	187	3,020	3,000	2,060	672	60	169	55	26
14	64	25	798	172	2,510	11,200	1,820	560	51	660	48	22
15	59	71	721	158	2,160	*8,340	5,310	518	45	2,500	51	19
16	51	114	644	166	2,200	5,600	18,000	784	37	1,800	56	18
17	46	412	560	164	8,480	5,090	7,880	728	32	3,240	40	16
18	43	371	574	151	*29,100	3,900	4,450	567	29	1,970	33	14
19	40	698	798	169	11,100	3,040	3,110	444	27	1,100	29	11
20	36	1,200	944	224	7,480	2,400	2,390	360	26	700	139	10
21	33	928	880	326	5,050	1,950	1,920	300	47	458	376	8.6
22	30	644	819	343	3,630	1,690	1,630	251	110	348	198	7.4
23	27	816	756	371	2,770	1,460	1,410	215	127	275	127	7.4
24	25	1,530	700	567	2,530	1,350	1,210	201	95	201	90	9.5
25	22	1,360	637	728	3,750	1,290	1,040	260	77	188	68	94
26	18	1,150	560	784	4,660	1,140	920	251	68	285	54	86
27	17	1,000	484	784	3,680	1,060	819	201	71	201	43	59
28	16	819	425	826	3,440	976	735	194	57	151	39	47
29	17	644	383	7,320	2,800	1,160	651	286	45	123	66	38
30	18	490	365	*27,600	-------	1,220	637	686	34	222	139	30
31	17	-------	360	11,400	-------	1,070	-------	560	-------	285	97	-------
Total	2,873	12,472	46,288	55,512	201,480	95,936	120,604	27,601	3,570	16,880	4,849	1,105.9
Mean	92.7	416	1,493	1,791	6,948	3,095	4,020	890	119	545	156	36.9
Cfsm	0.121	0.545	1.95	2.34	9.09	4.05	5.26	1.16	0.156	0.713	0.204	0.048
In.	0.14	0.61	2.25	2.70	9.81	4.67	5.87	1.34	0.17	0.82	0.24	0.05

Calendar year 1955: Max 46,000 Min 3.7 Mean 1,379 Cfsm 1.80 In. 24.50
Water year 1955-56: Max 29,100 Min 7.4 Mean 1,610 Cfsm 2.11 In. 28.67

Peak discharge (base, 19,000 cfs).--Jan. 30 (12 m.) 32,100 cfs (18.42 ft); Feb. 3 (1:30 p.m.) 30,700 cfs (18.07 ft); Feb. 18 (11 a.m.) 41,600 cfs (20.58 ft); Apr. 4 (2 p.m.) 19,000 cfs (14.48 ft); Apr. 16 (3 a.m.) 24,600 cfs (16.40 ft).

* Discharge measurement made on this day.

Sewee Creek near Decatur, Tenn.

Location.--Lat 35°34'53", long 84°44'53", on right bank a third of a mile downstream from bridge on State Highway 58, half a mile downstream from Dry Fork, 4½ miles upstream from mouth, and 5 miles north of Decatur, Meigs County.

Drainage area.--117 sq mi.

Records available.--May 1934 to September 1956. Prior to October 1935, published as Suee Creek near Decatur.

Gage.--Water-stage recorder. Datum of gage is 694.32 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--22 years, 187 cfs.

Extremes.--Maximum discharge during year, 6,360 cfs Feb. 3 (gage height, 12.87 ft); minimum, 15 cfs for many days in October, August, and September; minimum gage height, 0.17 ft Sept. 22, 23, 26-28.

1934-56: Maximum discharge, 29,000 cfs Jan. 7, 1946 (gage height, 23.97 ft, from floodmarks), from rating curve extended above 6,700 cfs on basis of contracted-opening determination of peak flow; minimum, 11 cfs Sept. 24, 1935, Jan. 7-10, Oct. 4, 5, 7, 11, 12, 14, 15, 1940; minimum gage height, 0.15 ft Sept. 2, 3, 7-9, 13, 20, 1954.

Remarks.--Records good.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 2				Feb. 3 to Sept. 30			
0.2	15	0.9	339	0.17	15	0.7	255
.3	36	2.0	650	.2	19	1.0	370
.4	70	3.0	1,000	.3	39	5.0	1,580
.5	115			.4	75	10.0	4,280
				.5	125		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	18	18	26	304	g243	115	100	80	51	g20	g20
2	18	18	22	26	764	g249	125	110	55	42	g20	g20
3	16	18	30	26	*4,260	g255	125	296	51	31	g20	20
4	15	18	637	26	2,170	g249	455	213	48	39	g19	20
5	*15	20	267	24	1,220	g213	264	160	*44	63	g19	g22
6	15	20	134	22	1,380	g207	1,040	146	44	34	g18	*39
7	16	22	97	22	980	g237	830	480	42	34	g18	44
8	56	20	84	22	606	g1,180	439	*273	42	42	g18	22
9	22	18	74	22	491	g530	328	195	39	162	g16	19
10	16	20	63	*22	370	g388	273	160	39	80	*16	18
11	15	22	53	22	522	g312	286	139	39	39	16	19
12	15	20	*46	22	391	g264	243	125	36	*34	15	19
13	15	20	43	22	g320	*291	207	115	36	31	15	19
14	16	*24	39	20	278	635	181	100	36	78	g15	19
15	16	33	39	20	260	1,120	557	95	36	158	g15	19
16	16	22	36	20	243	1,690	1,370	90	36	274	g15	18
17	16	39	33	20	1,160	935	597	80	36	115	g15	19
18	16	22	39	20	1,620	614	*418	75	34	63	g15	55
19	16	28	50	26	839	454	324	71	34	48	g15	20
20	15	36	46	28	g667	358	268	71	42	g44	g15	18
21	15	22	43	26	g468	291	231	67	34	36	g15	16
22	15	20	39	24	g376	260	213	63	34	31	g15	15
23	15	82	36	36	g308	237	188	59	31	29	g15	15
24	15	67	36	88	g382	207	167	63	31	25	g15	23
25	15	39	36	84	g430	g181	146	59	36	29	15	18
26	16	33	33	88	g391	g167	139	55	31	25	15	15
27	16	28	30	79	g376	153	125	55	29	g25	15	15
28	16	24	28	79	g324	139	120	55	27	g23	g25	15
29	22	22	26	145	g260	*213	115	51	27	g23	g23	16
30	22	20	26	946	------	146	105	51	29	g25	g20	16
31	20	---	---	26	477	------	125	------	48	------	g23	g20	------
Total	552	815	2,209	2,530	22,160	12,543	9,994	3,720	1,158	1,756	528	633
Mean	17.8	27.2	71.3	81.6	764	405	333	120	38.6	56.6	17.0	21.1
Cfsm	0.152	0.232	0.609	0.697	6.53	3.46	2.85	1.03	0.330	0.484	0.145	0.180
In.	0.18	0.26	0.70	0.80	7.04	3.99	3.18	1.18	0.37	0.56	0.17	0.20

Calendar year 1955: Max 2,450 Min 14 Mean 144 Cfsm 1.23 In. 16.76
Water year 1955-56: Max 4,260 Min 15 Mean 160 Cfsm 1.37 In. 18.63

Peak discharge (base, 2,000 cfs).--Feb. 3 (6 p.m.) 6,360 cfs (12.87 ft); Feb. 17 (6:30 p.m.) 2,010 cfs (5.96 ft); Mar. 16 (2 p.m.) 2,000 cfs (5.95 ft).

* Discharge measurement made on this day.

g Computed from graph based on bihourly radio-gage readings furnished by Tennessee Valley Authority.

Hiwassee River at Presley, Ga.

Location.--Lat 34°54'17", long 83°43'01", on left bank 0.1 mile downstream from Cynth Creek, 0.5 mile southeast of Presley, Towns County, 1.3 miles upstream from Hightower Creek, and at mile 133.9.

Drainage area.--45.5 sq mi.

Records available.--December 1941 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,932.69 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--14 years (1942-56), 128 cfs.

Extremes.--Maximum discharge during year, 1,900 cfs Apr. 15 (gage height, 8.82 ft); minimum, 23 cfs Jan. 9 (gage height, 1.62 ft), result of freezeup.
1941-56: Maximum discharge, 5,700 cfs Mar. 11, 1952 (gage height, 15.24 ft), from rating curve extended above 2,000 cfs on basis of slope-area and contracted-opening determinations at gage heights 12.80 and 15.24 ft, respectively; minimum, 22 cfs Sept. 27-30, Oct. 5, 6, 10, 11, 12, 14, 1954; minimum gage height, 1.60 ft Oct. 6, 7, 1947, Oct. 5, 6, 10, 11, 12, 14, 1954.

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

Revisions (water years).--WSP 973: 1942.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30	
1.7	29	3.0	232	1.7	31
1.9	47	4.0	464	1.9	51
2.1	72	5.0	720	2.1	74
2.5	134	6.0	990	2.5	134

Note.--Same as preceding table above 2.5 ft.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	38	44	44	59	163	115	*150	88	95	62	40
2	57	*37	52	43	*96	195	112	154	83	74	*59	38
3	47	36	48	43	148	181	*109	171	78	*85	58	37
4	45	35	62	42	207	167	114	147	78	86	56	37
5	*44	35	63	42	207	*156	119	143	*77	80	54	39
6	46	35	*55	*42	241	154	444	145	73	75	52	75
7	68	44	52	41	228	147	319	213	72	74	49	74
8	95	38	49	40	169	150	230	181	69	99	48	53
9	54	36	51	b35	143	138	197	162	69	101	46	47
10	45	43	46	b37	120	131	181	150	67	79	45	43
11	43	41	45	40	156	131	258	139	67	70	97	*42
12	41	38	43	40	141	124	239	138	66	64	70	40
13	42	39	42	39	131	141	205	131	68	86	53	38
14	42	46	41	b36	117	197	191	122	84	72	50	37
15	40	45	41	b35	111	197	471	120	73	137	49	36
16	39	43	39	39	104	371	872	114	72	154	48	35
17	39	46	38	37	214	294	427	107	64	100	47	34
18	38	41	89	37	224	241	335	107	62	83	45	44
19	38	52	80	62	256	207	285	103	64	74	44	36
20	37	45	54	46	422	185	256	100	69	93	53	35
21	36	43	51	41	289	171	234	100	63	82	90	33
22	36	41	48	40	224	162	222	98	60	82	51	33
23	35	69	47	46	189	154	209	93	60	90	46	33
24	36	64	47	57	175	150	197	95	77	83	44	36
25	36	68	46	48	187	139	183	97	73	78	42	82
26	36	73	45	45	175	134	177	93	60	72	42	104
27	36	60	44	44	187	131	169	93	58	66	42	58
28	37	53	43	44	199	126	163	91	54	62	43	50
29	59	47	47	44	179	138	158	94	52	59	42	47
30	42	45	48	58	------	126	154	90	92	60	47	45
31	39	----	45	52	------	119	------	86	------	63	45	----
Total	1,403	1,376	1,505	1,339	5,298	5,220	7,345	3,827	2,092	2,578	1,619	1,381
Mean	45.3	45.9	48.5	43.2	183	168	245	123	69.7	83.2	52.2	46.0
Cfsm	0.996	1.01	1.07	0.949	4.02	3.69	5.38	2.70	1.53	1.83	1.15	1.01
In.	1.15	1.12	1.23	1.09	4.33	4.27	6.00	3.13	1.71	2.11	1.32	1.13

Calendar year 1955: Max 809 Min 35 Mean 107 Cfsm 2.35 In. 31.82
Water year 1955-56: Max 872 Min 33 Mean 95.6 Cfsm 2.10 In. 28.59

Peak discharge (base, 800 cfs).--Apr. 6 (2:30 p.m.) 944 cfs (5.83 ft); Apr. 15 (12 p.m.) 1,900 cfs (8.82 ft).

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

Hiwassee River below Chatuge Dam, near Hayesville, N. C.

Location.--Lat 35°01'45", long 83°47'45", on left bank 0.4 mile upstream from Hyatt Mill Creek, 1.6 miles downstream from Chatuge Dam, 1.7 miles southeast of Hayesville, Clay County, and at mile 119.3.

Drainage area.--190 sq mi.

Records available.--May 1907 to December 1909 (fragmentary), August 1922 to September 1923 (gage heights only), April 1942 to September 1956. Published as "near Hayesville" 1907-9, 1922-23.

Gage.--Water-stage recorder. Datum of gage is 1,789.90 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. May 20, 1907, to Dec. 31, 1909, staff gage and Aug. 16, 1922, to Sept. 30, 1923, chain gage, at site 1.1 miles upstream at different datum.

Average discharge.--14 years (1942-56), 433 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,480 cfs June 25 (gage height, 5.17 ft); minimum, 1.8 cfs Jan. 18 (gage height, 0.42 ft).
1907-9, 1922-23, 1942-56: Maximum gage height recorded, 11.9 ft Mar. 13, 1909, site and datum then in use (discharge not determined); minimum discharge, 0.6 cfs Oct. 21, 1952; minimum gage height, 0.30 ft Aug. 3, 1942, Oct. 21, 1952.

Remarks.--Records excellent except those below 10 cfs, which are good. Flow completely regulated by Chatuge Lake (see p. 228).

Revisions (water years).--WSP 973: 1942.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.4	1.6	1.7	150
.6	4.1	2.0	229
.8	8.4	2.5	372
1.0	16	3.0	530
1.1	24	3.5	712
1.2	38	4.0	922
1.4	78	5.2	1,500

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	723	598	558	88	6.9	10	12	*14	577	244	436	670
2	734	*632	1,080	10	*6.6	15	12	108	663	141	*430	104
3	738	652	918	9.6	12	197	*11	16	456	*30	434	9.6
4	784	600	1,100	9.3	8.9	154	14	106	815	14	433	9.6
5	*734	982	446	232	7.9	*12	12	14	*850	700	410	9.3
6	582	1,000	*3.9	*517	9.6	12	38	14	914	739	433	9.6
7	809	690	3.5	10	7.4	11	13	15	838	615	438	9.3
8	502	608	4.9	528	6.6	12	12	13	718	16	436	9.3
9	746	358	69	520	6.2	11	356	22	891	321	692	8.9
10	782	518	10	247	10	10	464	98	15	422	1,200	8.9
11	264	536	10	220	8.7	10	473	92	294	422	1,050	*20
12	9.0	458	9.3	231	7.9	10	465	147	296	419	1,220	9.6
13	2.4	452	9.3	230	7.6	11	369	14	280	428	1,120	9.3
14	128	474	9.3	8.7	17	14	14	13	304	425	1,160	9.3
15	345	266	296	8.4	8.4	12	32	804	298	400	1,140	9.3
16	365	464	886	10	20	16	22	330	13	423	1,180	9.3
17	319	454	50	2.3	22	14	15	240	12	429	1,460	9.3
18	488	255	11	2.1	14	13	17	346	184	431	1,110	9.3
19	958	534	730	220	20	12	13	320	141	428	1,190	839
20	589	214	926	550	24	12	16	333	801	428	1,420	1,030
21	766	198	909	10	13	12	13	387	934	432	1,450	120
22	726	194	944	6.6	69	12	12	387	796	408	1,430	9.6
23	746	186	975	460	24	12	16	416	14	424	1,240	9.3
24	746	192	86	463	12	12	14	418	15	426	1,220	9.3
25	760	186	556	461	14	12	84	392	688	432	1,260	10
26	747	10	604	488	11	11	12	412	590	433	1,260	10
27	754	9.6	910	403	13	11	12	366	583	432	852	10
28	756	9.3	1,050	7.4	12	11	12	429	590	434	744	9.3
29	772	9.3	1,070	6.6	11	13	11	560	654	408	754	9.3
30	767	8.9	1,070	89	-------	12	16	565	706	428	758	9.6
31	874	-------	1,080	6.6	-------	12	-------	580	-------	432	752	9.6
Total	19,015.4	11,748.1	16,384.2	6,054.6	410.7	698	2,582	7,971	14,930	12,164	29,112	3,009.3
Mean	613	392	529	195	14.2	22.5	86.1	257	498	392	939	100
(†)	-11,800	-5,300	-8,600	0	+20,800	+17,400	+19,900	+4,900	-7,400	-2,800	-21,600	+1,100
Adjusted for change in contents in Chatuge Lake												
Mean	233	215	251	195	731	584	749	415	251	302	242	137
Cfsm	1.23	1.13	1.32	1.03	3.85	3.07	3.94	2.18	1.32	1.59	1.27	0.721
In.	1.41	1.26	1.52	1.19	4.15	3.54	4.40	2.52	1.47	1.83	1.47	0.80

	Observed	Adjusted
Calendar year 1955:	Max 1,480 Min 1.9 Mean 597	Mean 395 Cfsm 2.08 In. 28.20
Water year 1955-56:	Max 1,460 Min 2.1 Mean 339	Mean 357 Cfsm 1.88 In. 25.56

* Discharge measurement made on this day.
† Change in contents, in cfs-days, in Chatuge Lake, furnished by Tennessee Valley Authority.

Hiwassee River above Murphy, N. C.

Location.--Lat 35°04'50", long 84°00'10", on right bank on U. S. Highway 64, 600 ft upstream from Will Scott Creek, 1.9 miles east of Murphy, Cherokee County, and at mile 99.2.

Drainage area.--406 sq mi.

Records available.--June 1896 to August 1897 (gage heights only), October 1897 to June 1917, and October 1918 to September 1956 in reports of Geological Survey. Published as "at Murphy" prior to April 1940. October 1897 to December 1923 (including revised records for January 1901 to December 1902 and January 1904 to June 1917) in North Carolina Department of Conservation and Development Bulletin 34. October 1897 to September 1924 (including revised records for January 1901 to December 1902 and January 1904 to June 1917) in Tennessee Division of Geology Bulletin 34.

Gage.--Water-stage recorder. Datum of gage is 1,538.23 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Jan. 30, 1921, wire-weight or chain gages at bridge 2.8 miles downstream at datum 30.40 ft lower. Jan. 30, 1921, to Nov. 8, 1926, chain gage 2.8 miles downstream at datum 28.40 ft lower. Nov. 9, 1926, to Apr. 30, 1940, water-stage recorder 2.8 miles downstream at datum 28.20 ft lower.

Average discharge.--58 years (1898-1956), 911 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 8,920 cfs Apr. 15 (gage height, 9.52 ft); minimum, 64 cfs Sept. 17 (gage height, 1.88 ft); minimum daily, 100 cfs Sept. 17.

1896-1917, 1918-56: Maximum discharge observed, 23,100 cfs Mar. 19, 1899 (gage height, 18.4 ft, site and datum then in use), from rating curve extended above 5,000 cfs; minimum daily, 10 cfs Dec. 3, 1924, result of freezeup and filling of Andrews Reservoir; minimum daily during normal regulation, 62 cfs Oct. 19, 1952.

Remarks.--Records excellent. Considerable diurnal fluctuation caused by Mission powerplant at Andrews Dam (normal regulated storage, about 75 cfs-days). Flow regulated by Chatuge Lake (see p. 228).

Revisions (water years).--WSP 583: 1899(M). WSP 973: Drainage area. WSP 1003: 1943. See also Records available.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

2.0	89	3.5	910
2.1	117	4.0	1,280
2.3	187	5.0	2,260
2.6	328	6.0	3,440
3.0	563	7.0	4,780

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	943	*728	492	598	*388	*798	458	470	952	640	620	844
2	848	736	1,300	230	574	950	*446	*580	1,300	594	*621	462
3	830	816	1,180	225	1,700	939	425	1,140	392	228	628	130
4	*844	724	1,830	222	1,590	1,090	532	1,000	*1,070	262	606	124
5	750	1,040	*1,560	300	1,130	784	458	756	1,080	800	594	139
6	839	1,050	610	*675	1,380	770	1,100	679	1,330	1,250	583	155
7	1,100	1,050	476	345	1,410	707	938	994	1,070	989	595	210
8	1,780	704	428	548	966	840	735	966	920	582	587	147
9	762	393	441	688	784	742	805	788	1,090	627	590	128
10	966	700	373	552	648	686	989	770	544	763	1,350	*120
11	567	773	318	416	644	644	1,080	714	514	703	1,350	113
12	349	692	293	402	543	596	1,020	698	552	673	1,200	126
13	176	527	272	397	519	735	960	557	536	756	1,190	110
14	176	658	264	200	488	1,600	575	496	580	738	1,310	112
15	462	510	265	180	464	1,430	1,800	926	572	757	1,280	105
16	525	640	1,100	180	455	1,990	4,090	1,100	278	981	1,260	102
17	452	776	549	170	1,750	1,590	1,520	514	238	1,010	1,530	100
18	612	459	363	174	1,970	1,210	1,090	689	382	830	1,250	132
19	846	776	811	260	1,760	987	896	923	374	752	1,310	476
20	932	491	1,200	735	3,530	847	784	712	957	692	1,570	1,120
21	858	419	1,160	396	1,840	770	707	484	1,090	700	1,670	615
22	695	395	1,180	190	1,280	707	658	662	1,260	678	1,530	110
23	862	639	1,200	549	973	651	610	802	369	663	1,380	110
24	755	736	597	769	903	630	583	745	328	646	1,310	116
25	871	582	607	714	982	576	610	700	784	658	1,330	138
26	812	443	788	699	1,060	544	516	999	801	666	1,350	273
27	837	360	1,050	692	1,010	532	500	686	802	640	1,120	151
28	838	310	1,210	306	1,100	506	482	422	779	626	790	127
29	973	262	1,280	243	917	561	464	856	838	620	889	125
30	950	253	1,270	459	-------	496	446	846	852	608	874	118
31	891	-------	1,240	404	-------	470	-------	844	-------	616	869	-------
Total	24,101	18,642	25,707	12,918	32,758	26,378	26,277	23,518	22,634	21,748	33,136	6,838
Mean	777	621	829	417	1,130	851	876	759	754	702	1,069	228

	Observed			Adjusted†		
Calendar year 1955:	Max 4,410	Min 96	Mean 954	Mean 752	Cfsm 1.85	In. 25.13
Water year 1955-56:	Max 4,090	Min 100	Mean 750	Mean 768	Cfsm 1.89	In. 25.76

* Discharge measurement made on this day.

† Adjusted for change in contents in Chatuge Lake.

Valley River at Tomotla, N. C.

Location.--Lat 35°08'20", long 83°58'50", on right bank at highway bridge at Tomotla, Cherokee County, 0.2 mile upstream from Rogers Creek, 4.7 miles northeast of Murphy, and 6.6 miles upstream from mouth.

Drainage area.--104 sq mi.

Records available.--June 1904 to December 1909, January 1914 to April 1917, October 1918 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 1,556.46 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to May 11, 1934, various staff or chain gages at same site and datum.

Average discharge.--44 years (1904-9, 1914-16, 1919-56), 251 cfs.

Extremes.--Maximum discharge during year, 3,750 cfs Apr. 16 (gage height, 11.22 ft); minimum, 32 cfs Sept. 21, 22, 23 (gage height, 1.66 ft).
1904-9, 1914-17, 1918-56: Maximum discharge observed, 9,030 cfs Nov. 19, 1906 (gage height, 17.3 ft), from rating curve extended above 5,300 cfs; minimum, 12 cfs several times in August and September 1925 (gage height, 0.52 ft).

Remarks.--Records excellent.

Revisions (water years).--WSP 503: 1905-9, 1915-17. WSP 783: 1907(M). WSP 823: Drainage area.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 5		Dec. 6 to Sept. 30			
1.8	49	1.6	25	3.5	620
1.9	64	1.7	36	4.0	800
2.1	102	1.9	67	5.0	1,140
2.5	208	2.1	110	6.0	1,490
3.0	388	2.5	222	7.0	1,890
3.5	598	3.0	405	8.0	2,290

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	*62	123	130	*280	*526	258	*258	222	98	*79	46
2	71	61	153	128	442	628	*255	286	159	*105	83	65
3	61	62	158	128	2,130	588	248	468	140	89	79	47
4	*56	60	423	*120	1,350	562	286	417	*132	85	73	46
5	55	60	*535	115	870	*499	255	345	130	87	71	52
6	55	58	353	112	1,070	454	478	318	125	115	69	64
7	216	71	276	110	1,050	421	437	544	122	103	64	71
8	561	64	245	105	712	490	361	522	118	120	60	53
9	175	61	238	101	571	421	318	413	115	165	58	47
10	123	62	203	103	450	389	297	353	115	128	57	*43
11	100	64	191	103	450	373	325	314	108	101	57	42
12	90	61	179	101	385	345	294	290	108	89	73	40
13	86	62	171	98	361	405	272	272	130	151	58	39
14	86	116	159	96	325	1,180	266	252	151	143	55	37
15	78	150	154	96	318	981	806	245	128	151	53	36
16	77	118	143	96	300	1,250	2,270	232	112	225	49	35
17	73	156	135	94	567	1,060	868	216	105	402	47	34
18	71	118	210	94	922	800	656	206	103	191	50	42
19	69	181	197	146	918	664	526	200	167	146	60	36
20	66	164	179	128	1,470	558	441	197	159	132	79	35
21	64	135	165	125	966	481	389	185	118	120	96	32
22	64	118	157	108	723	433	357	179	115	108	60	32
23	62	343	151	132	562	397	329	168	108	101	53	33
24	61	337	146	213	544	377	308	176	115	108	50	90
25	60	243	140	176	693	345	286	165	128	171	49	58
26	58	224	135	159	754	325	272	157	120	120	47	115
27	58	187	130	148	692	308	262	159	103	108	47	57
28	58	164	125	157	748	290	255	159	92	94	50	50
29	111	142	146	159	620	322	248	157	87	89	49	47
30	73	130	148	269	------	*290	238	148	85	96	50	44
31	66	------	138	272	------	269	------	135	------	85	50	------
Total	3,015	3,834	6,006	4,122	21,243	16,431	12,861	8,136	3,720	4,026	1,875	1,468
Mean	97.3	128	194	133	733	530	429	262	124	130	60.5	48.9
Cfsm	0.936	1.23	1.87	1.28	7.05	5.10	4.12	2.52	1.19	1.25	0.582	0.470
In.	1.08	1.37	2.15	1.47	7.60	5.88	4.60	2.91	1.33	1.44	0.67	0.52

Calendar year 1955: Max 2,160 Min 41 Mean 202 Cfsm 1.94 In. 26.34
Water year 1955-56: Max 2,270 Min 32 Mean 237 Cfsm 2.28 In. 31.02

Peak discharge (base, 1,700 cfs).--Feb. 3 (5 p.m.) 2,740 cfs (9.08 ft); Feb. 20 (7:30 a.m.) 1,730 cfs (6.60 ft); Mar. 14 (1:30 p.m.) 1,940 cfs (7.13 ft); Apr. 16 (3:30 a.m.) 3,750 cfs (11.22 ft).
* Discharge measurement made on this day.

Nottely River near Blairsville, Ga.

Location.--Lat 34°50'28", long 83°56'10", on left bank 250 ft upstream from county road bridge, 0.1 mile downstream from Arkaqua Creek, 0.2 mile upstream from Akins Creek, and 2.7 miles southeast of Blairsville, Union County.

Drainage area.--74.8 sq mi.

Records available.--January 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,812.47 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--14 years, 170 cfs.

Extremes.--Maximum discharge during year, 4,530 cfs Apr. 15 (gage height, 11.75 ft); minimum, 35 cfs Sept. 16, 17 (gage height, 1.87 ft).
1942-56: Maximum discharge, 8,500 cfs Mar. 11, 1952 (gage height, 16.78 ft, from floodmark), from rating curve extended above 3,000 cfs on basis of contracted-opening determination of peak flow; minimum, 27 cfs Sept. 8, Oct. 7, 1947 (gage height, 1.77 ft).

Remarks.--Records excellent except those for periods of ice effect, which are good. Slight diurnal fluctuation at low flow caused by mills above station. Occasional regulation by Lake Trahlyta in Vogel State Park.

Revisions (water years).--WSP 1053: 1942(M), 1943. WSP 1236: 1946(M), 1950(M).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	37	3.5	425
2.0	46	4.0	670
2.3	85	5.0	1,250
2.6	145	6.0	1,690
3.0	247		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	*50	64	62	*100	*222	145	190	113	118	*87	42
2	67	50	73	61	163	259	*143	*198	107	*84	70	42
3	52	49	69	60	262	241	141	239	103	108	64	40
4	*47	49	89	*56	334	230	156	201	*99	156	61	42
5	48	48	*98	55	324	209	163	186	98	134	58	41
6	52	48	82	55	413	209	952	188	94	138	56	118
7	120	61	76	54	345	201	515	307	92	130	52	82
8	169	53	72	52	247	244	334	262	87	172	50	57
9	76	50	73	b50	214	203	271	225	90	168	48	49
10	62	57	66	b47	183	190	244	206	89	119	46	*45
11	56	56	65	52	209	183	430	193	89	96	223	43
12	54	52	62	52	186	173	353	183	85	85	85	42
13	54	58	61	50	178	203	294	176	87	132	61	42
14	55	80	62	b46	161	357	265	166	125	98	56	40
15	53	70	73	b45	154	331	1,150	159	105	174	54	38
16	52	64	70	50	150	611	1,650	154	94	210	50	37
17	52	70	69	47	425	452	681	147	85	130	48	40
18	52	60	111	48	377	357	492	143	82	103	47	52
19	52	79	98	96	469	297	405	136	85	89	52	40
20	49	67	85	70	858	259	345	134	99	94	62	39
21	48	61	80	62	470	233	310	130	84	84	120	37
22	47	58	78	60	342	214	290	125	82	79	60	37
23	47	140	76	69	277	203	268	123	79	76	53	38
24	47	113	74	85	256	193	250	125	84	73	49	39
25	46	109	72	74	277	180	233	123	79	73	46	95
26	46	119	69	69	256	173	225	121	72	70	46	129
27	45	94	66	66	271	166	216	123	73	66	47	58
28	48	80	65	67	297	159	209	117	65	62	48	53
29	115	70	60	67	250	183	201	121	62	69	48	48
30	58	66	73	87	------	161	193	130	100	90	45	46
31	53	---	65	84	-------	152	-------	113	---	80	44	---
Total	1,919	2,081	2,296	1,898	8,448	7,448	11,524	5,144	2,688	3,360	1,936	1,551
Mean	61.9	69.4	74.1	61.2	291	240	384	166	89.6	108	62.5	51.7
Cfsm	0.828	0.928	0.991	0.818	3.89	3.21	5.13	2.22	1.20	1.44	0.836	0.691
In.	0.95	1.03	1.14	0.94	4.20	3.70	5.73	2.56	1.34	1.67	0.96	0.77

Calendar year 1955: Max 1,910 Min 39 Mean 149 Cfsm 1.99 In. 26.98
Water year 1955-56: Max 1,650 Min 37 Mean 137 Cfsm 1.83 In. 24.99

Peak discharge (base, 1,500 cfs).--Apr. 6 (1 p.m.) 2,230 cfs (7.46 ft); Apr. 15 (11 p.m.) 4,530 cfs (11.75 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Nottely River at Nottely Dam, near Ivylog, Ga.

Location.--Lat 34°57'55", long 84°05'25", on right bank 1,600 ft downstream from Rhodes Branch, 0.6 mile downstream from Nottely Dam, 0.6 mile upstream from Dooley Creek, and 1.8 miles west of Ivylog, Union County.

Drainage area.--215 sq mi.

Records available.--July 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,599.21 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--14 years, 400 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,800 cfs Aug. 14 (gage height, 4.91 ft); minimum, 1.6 cfs Mar. 15 (gage height, 0.32 ft).
1942-56: Maximum discharge, 3,130 cfs May 23, 1955 (gage height, 6.54 ft); minimum, 0.1 cfs Sept. 6-9, 19, 1954 (gage height, 0.15 ft).

Remarks.--Records excellent except those below 20 cfs, which are fair. Flow completely regulated by Nottely Lake (see p. 228).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.5	6.0	1.5	126
.6	10	1.8	195
.7	16	2.1	282
.8	22	2.5	427
.9	30	3.0	645
1.0	42	4.0	1,200
1.2	71	5.0	1,860

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	313	*152	200	180	1,390	*15	89	1,030	476	314	*1,540	8.3
2	282	145	206	175	*1,380	12	*1,340	*1,120	478	*626	1,520	8.3
3	225	132	206	170	1,310	380	1,370	1,180	482	587	1,570	8.3
4	*185	126	254	*163	1,190	158	1,460	751	*464	577	1,590	8.3
5	163	124	*302	163	1,400	352	410	12	488	634	1,630	8.3
6	147	124	285	161	1,400	354	16	12	508	452	1,660	8.7
7	212	143	263	229	1,400	367	10	1,320	512	762	1,690	8.7
8	512	143	245	306	1,400	356	40	1,110	518	11	1,720	8.7
9	415	141	236	168	1,400	357	288	918	487	334	1,690	8.7
10	320	139	222	913	1,420	632	386	1,080	10	392	1,600	8.7
11	254	145	208	918	1,420	32	390	1,130	368	372	1,720	8.7
12	211	141	195	573	1,420	631	380	1,050	316	370	1,280	8.7
13	188	154	188	512	1,430	606	369	1,120	249	386	1,070	8.7
14	175	200	180	1,320	1,440	300	376	1,320	372	382	938	11
15	156	231	172	1,330	1,450	38	362	1,440	404	12	1,220	9.5
16	145	228	170	1,320	1,290	673	372	*587	10	201	1,100	10
17	136	236	170	1,250	1,460	114	376	395	10	196	880	8.3
18	130	217	214	1,240	1,420	282	380	528	60	197	506	9.0
19	128	217	248	1,330	1,300	948	370	11	406	197	7.1	1,040
20	128	214	242	1,330	1,340	994	376	11	768	188	12	1,300
21	126	200	231	1,350	1,350	1,140	378	426	951	11	202	8.3
22	124	190	219	1,330	1,030	1,060	360	464	734	11	7.5	7.9
23	124	245	214	1,350	954	970	364	285	10	14	7.5	7.9
24	122	340	208	1,350	180	309	364	411	10	12	7.5	7.9
25	116	334	203	1,150	14	497	362	414	788	54	7.5	8.7
26	114	348	195	1,320	12	1,350	696	11	582	508	7.5	8.3
27	114	316	190	1,360	79	1,420	1,380	11	548	605	7.5	8.3
28	120	276	180	1,370	16	1,430	1,020	490	663	593	7.9	8.3
29	190	236	182	1,370	12	1,320	904	492	666	492	7.5	8.3
30	182	211	190	1,380	-------	1,440	1,210	493	762	1,320	7.5	8.3
31	163	-------	188	1,380	-------	1,440	-------	478	-------	1,510	8.3	-------
Total	5,920	6,048	6,606	28,461	31,307	19,977	16,198	20,100	13,100	12,320	25,221.3	2,581.1
Mean	191	202	213	918	1,080	644	540	648	437	397	814	86.0
(†)	-500	+100	0	-22,100	-9,600	-2,900	+8,400	-7,500	-5,400	-3,400	-18,600	+2,100

Adjusted for change in lake contents

Mean	175	205	213	205	749	551	820	406	257	288	214	156
Cfsm	0.814	0.953	0.991	0.953	3.48	2.56	3.81	1.89	1.20	1.34	0.995	0.726
In.	0.94	1.06	1.14	1.10	3.75	2.95	4.25	2.18	1.33	1.54	1.15	0.81

	Observed			Adjusted			
Calendar year 1955:	Max 2,880	Min 1.0	Mean 169	Mean 328	Cfsm 1.53	In. 20.72	
Water year 1955-56:	Max 1,720	Min 7.1	Mean 513	Mean 351	Cfsm 1.63	In. 22.20	

* Discharge measurement made on this day.
† Change in contents, in cfs-days, in Nottely Lake; furnished by Tennessee Valley Authority.

Turtletown Creek at Turtletown, Tenn.

Location.--Lat 36°07'57", long 84°20'37", on left bank half a mile north of Turtletown, Polk County, three-quarters of a mile downstream from Nigger Creek, and 6 miles upstream from mouth.

Drainage area.--26.9 sq mi.

Records available.--May 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,490.61 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--22 years, 48.6 cfs.

Extremes.--Maximum discharge during year, 461 cfs Apr. 16 (gage height, 4.23 ft); minimum, 15 cfs Sept. 17, 22 (gage height, 0.95 ft).
1934-56: Maximum discharge, 1,120 cfs June 13, 1952 (gage height, 6.50 ft); minimum, 9.3 cfs Oct. 10, 1941; minimum gage height, 0.86 ft Oct. 10, 1941, Sept. 23, 1955.

Remarks.--Records good. Some diurnal fluctuation caused by small mills above station.

Revisions (water years).--WSP 823: Drainage area. WSP 1143: 1936(M), 1946-47(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Rate of change in stage used as a factor Feb. 3, Apr. 15-16)

0.90	12	1.5	70
1.0	18	2.0	138
1.2	34	3.0	304

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	19	22	24	51	78	62	65	69	78	30	24
2	24	*18	28	24	62	97	61	69	52	68	30	31
3	21	18	28	24	243	91	61	119	51	47	30	22
4	19	18	93	22	167	83	67	102	47	64	29	21
5	18	17	56	22	122	83	62	78	46	86	29	*20
6	*19	17	41	22	204	75	117	79	46	58	26	24
7	55	23	34	22	123	73	90	92	*44	50	*24	27
8	124	19	32	21	90	*100	75	86	44	52	23	22
9	34	18	37	20	82	80	70	76	44	58	22	20
10	27	22	31	20	69	75	67	*70	43	49	22	19
11	24	22	30	*21	74	74	*78	67	42	*42	22	19
12	22	19	28	21	64	71	69	62	54	41	24	19
13	23	22	26	21	62	80	64	62	53	57	23	18
14	23	34	*25	20	*56	175	62	60	56	53	31	17
15	22	35	26	19	53	124	131	58	44	45	23	17
16	21	27	25	19	52	169	*241	58	41	43	22	17
17	20	32	24	19	104	136	110	56	38	40	21	16
18	20	25	45	19	130	108	95	53	44	36	23	17
19	22	39	34	34	115	96	86	52	38	34	36	17
20	19	29	30	27	199	88	80	51	37	34	24	16
21	18	25	28	24	124	83	75	51	37	33	32	16
22	17	24	27	23	100	79	75	50	36	32	27	16
23	17	43	25	32	86	76	73	49	42	33	24	16
24	17	37	25	47	86	79	70	51	74	33	22	24
25	17	31	24	36	96	74	67	50	49	64	22	21
26	17	32	24	30	83	73	66	49	40	41	22	24
27	17	29	23	29	101	69	64	49	38	34	22	19
28	17	25	22	29	109	69	64	47	35	32	28	18
29	34	24	24	31	87	75	62	46	34	30	23	18
30	21	22	27	57	------	66	61	45	42	30	22	17
31	19	-- --	26	44	------	64	------	46	------	30	21	- - -
Total	808	765	972	823	3,014	2,763	2,425	1,948	1,360	1,427	779	592
Mean	26.1	25.5	31.4	26.5	104	89.1	80.8	62.8	45.3	46.0	25.1	19.7
Cfsm	0.970	0.948	1.17	0.985	3.87	3.31	3.00	2.33	1.68	1.71	0.933	0.732
In.	1.12	1.06	1.34	1.14	4.17	3.82	3.35	2.69	1.88	1.97	1.08	0.82

Calendar year 1955: Max 352 Min 11 Mean 39.0 Cfsm 1.45 In. 19.66
Water year 1955-56: Max 243 Min 16 Mean 48.3 Cfsm 1.80 In. 24.44

Peak discharge (base, 300 cfs).--Feb. 3 (5 p.m.) 399 cfs (3.69 ft); Apr. 16 (3 a.m.) 461 cfs (4.23 ft).
* Discharge measurement made on this day.

Hiwassee River near McFarland, Tenn.

Location.--Lat 35°10'48", long 84°26'36", on left bank a quarter of a mile downstream from Smith Creek, 0.4 mile downstream from Apalachia powerhouse of Tennessee Valley Authority, 2.8 miles west of McFarland, Polk County, and at mile 53.2.

Drainage area.--1,136 sq mi.

Records available.--October 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 830.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--14 years, 2,345 cfs (unadjusted).

Extremes.--Maximum discharge during year, 6,880 cfs Feb. 3 (gage height, 5.67 ft); minimum, 68 cfs Sept. 23 (gage height, 1.25 ft); minimum daily, 168 cfs July 8.
1942-56: Maximum discharge, 22,500 cfs June 13, 1952 (gage height, 10.42 ft), from rating curve extended above 15,000 cfs; minimum daily, 30 cfs (estimated) Sept. 18-20, 1955.

Remarks.--Records good except those below 500 cfs and those for periods of no gage-height record, which are fair. Flow regulated by Chatuge, Nottely, Hiwassee, and Apalachia Lakes (see p. 228,229).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.5	133	3.0	1,200
1.8	240	4.0	2,900
2.4	620	5.0	5,090

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,400	2,700	2,720	3,020	1,410	3,540	3,020	1,130	1,580	1,800	2,660	2,270
2	1,360	2,660	2,760	3,000	1,670	3,600	3,020	1,150	1,530	2,560	2,680	344
3	2,490	2,700	2,570	3,020	3,910	3,620	2,780	1,440	1,480	1,840	2,680	1,330
4	2,570	2,650	2,500	2,660	2,950	3,680	2,780	1,790	1,480	2,640	2,680	2,370
5	2,590	2,680	3,140	3,020	1,600	3,600	1,800	1,740	1,480	2,120	2,680	2,640
6	2,590	2,650	3,100	3,060	2,500	3,520	a1,340	440	1,450	1,930	2,680	*2,720
7	2,610	2,660	2,820	2,830	2,580	*3,460	696	1,600	1,440	1,440	2,700	1,560
8	3,080	2,660	2,800	3,180	2,920	3,560	a630	1,370	1,470	168	2,700	2,600
9	2,660	2,660	2,820	3,160	3,340	3,460	1,580	1,330	1,440	1,240	2,700	2,330
10	2,610	2,680	2,780	*2,860	3,320	3,500	a1,330	1,410	186	1,390	2,680	2,660
11	2,610	2,700	2,760	2,750	3,260	3,480	2,290	1,280	1,330	1,370	2,700	2,650
12	2,590	2,620	2,760	3,080	2,750	3,440	a1,460	1,250	1,450	*1,340	2,700	2,650
13	2,590	2,000	2,740	2,700	3,240	3,460	1,130	1,240	1,520	1,340	2,720	2,650
14	2,590	*2,260	2,780	2,670	3,200	4,290	1,380	2,100	1,640	1,440	2,700	2,650
15	2,610	2,470	2,760	1,450	3,150	4,030	1,240	2,780	1,660	1,400	2,700	2,510
16	2,630	2,840	3,000	2,290	3,180	4,340	2,320	2,760	1,470	2,320	2,700	2,150
17	2,610	2,780	3,000	2,200	3,390	4,030	780	1,910	1,970	1,730	2,700	2,660
18	2,630	2,740	3,060	1,580	3,430	3,740	740	1,980	2,480	1,490	1,550	2,660
19	2,650	2,800	2,820	1,860	3,180	3,620	a660	1,130	2,320	1,710	1,450	2,660
20	2,630	2,800	3,080	2,000	4,160	3,540	600	1,160	2,200	1,530	1,680	2,660
21	2,650	2,740	3,080	958	3,920	3,440	a550	1,440	2,680	1,810	1,760	2,570
22	2,630	2,720	3,060	1,710	3,720	3,160	a510	1,480	1,810	2,180	2,040	2,230
23	2,610	2,480	2,700	2,160	3,640	3,120	a690	1,480	2,530	2,300	2,000	960
24	2,650	2,740	2,170	2,820	3,600	3,100	a1,260	2,030	1,980	1,500	2,010	2,530
25	2,630	2,760	1,490	2,460	3,620	3,100	a1,160	2,700	2,050	1,530	2,000	2,350
26	2,650	2,540	2,340	2,140	3,520	3,120	*1,030	2,720	1,580	1,960	1,990	2,680
27	2,630	2,050	3,020	1,000	3,580	3,140	1,010	2,720	1,630	1,450	2,180	2,660
28	2,650	2,660	3,020	424	3,660	3,100	831	1,720	1,860	1,440	2,240	2,660
29	2,700	2,740	3,020	186	3,580	3,160	262	1,530	1,660	1,440	2,180	2,680
30	2,680	2,720	3,040	2,460	-------	3,100	1,210	1,500	1,370	2,630	2,320	1,460
31	2,680	-------	3,040	1,570	-------	3,080	-------	1,480	-------	2,660	2,270	-------
Total	79,260	78,870	86,750	70,278	91,980	108,130	40,089	51,790	50,726	53,698	73,630	69,504
Mean	2,557	2,629	2,798	2,267	3,172	3,488	1,336	1,671	1,691	1,732	2,375	2,317

	Observed			Adjusted†		
Calendar year 1955:	Max 5,120	Min 30	Mean 2,004	Mean 1,943	Cfsm 1.71	In. 23.22
Water year 1955-56:	Max 4,340	Min 168	Mean 2,335	Mean 2,177	Cfsm 1.92	In. 26.08

* Discharge measurement made on this day.
† Adjusted for change in contents in Chatuge, Nottely, Hiwassee, and Apalachia Lakes.
a No gage-height record; discharge estimated on basis of weather records and records for Apalachia Dam.

Toccoa River near Dial, Ga.

Location.--Lat 34°47'24", long 84°14'24", on right bank 1.4 miles upstream from Shallowford Bridge, 1.8 miles upstream from Stanley Creek, and 2.5 miles northwest of Dial, Fannin County.

Drainage area.--177 sq mi.

Records available.--January 1913 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,782.08 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 1, 1927, water-stage recorder and Oct. 1, 1927, to Nov. 16, 1928, staff gage, at same site and datum.

Average discharge.--43 years, 482 cfs.

Extremes.--Maximum discharge during year, 4,650 cfs Apr. 16 (gage height, 6.87 ft); minimum, 148 cfs Sept. 21, 22 (gage height, 0.84 ft).

1913-56: Maximum discharge, 10,800 cfs Mar. 11, 1952 (gage height, 11.20 ft), from rating curve extended above 5,000 cfs on basis of slope-area determination of peak flow; minimum, 60 cfs Sept. 6, 1925 (gage height, 0.40 ft).

Flood in 1898 reached a stage about 2.8 ft higher than that of Mar. 11, 1952.

Remarks.--Records excellent.

Revisions (water years).--WSP 823: Drainage area. WSP 1386: 1923(M), 1924, 1927(M), 1929-32(M), 1933, 1934(M), 1944(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.80	140	3.0	1,070
1.5	335	4.0	1,780
2.0	560	6.0	3,660

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	254	177	201	186	243	690	542	722	452	484	240	191
2	238	174	220	184	389	800	533	718	425	384	238	206
3	191	*172	222	184	632	731	528	770	412	315	235	179
4	177	167	257	182	704	713	592	700	398	299	232	*182
5	172	167	278	177	672	659	587	636	389	380	227	184
6	*182	165	238	174	974	668	1,860	677	394	420	*218	332
7	331	189	222	174	856	641	1,370	1,080	*448	563	206	278
8	633	177	215	170	614	745	922	840	389	600	200	208
9	267	170	218	170	560	*650	790	731	380	582	198	194
10	218	170	203	172	502	618	*731	*690	362	*416	194	179
11	201	177	201	179	556	600	906	659	353	340	194	174
12	191	167	198	*174	506	582	770	628	348	311	200	172
13	189	177	194	172	474	632	718	610	348	420	203	167
14	189	225	191	170	438	868	695	592	402	340	200	160
15	184	232	*189	167	*443	775	1,540	574	398	383	196	158
16	184	203	179	172	452	1,210	2,830	560	353	510	186	154
17	182	208	182	170	1,530	1,020	1,420	542	331	407	182	152
18	182	186	295	167	1,120	862	1,190	528	327	335	182	174
19	184	230	267	273	1,010	765	1,080	515	426	299	213	158
20	174	220	225	238	1,780	708	992	510	398	284	344	154
21	174	196	213	201	1,170	677	922	502	340	281	376	150
22	172	189	208	189	884	650	890	488	348	264	230	150
23	172	418	203	201	736	632	868	479	344	264	206	150
24	170	393	201	235	718	623	840	497	376	264	196	152
25	165	303	198	213	830	592	815	492	443	260	189	272
26	165	327	194	203	765	578	800	474	402	252	186	299
27	162	264	189	198	825	569	780	470	331	243	184	184
28	167	238	184	201	928	564	765	452	292	235	186	172
29	331	215	194	208	760	690	750	470	274	243	186	165
30	208	203	208	260	------	600	731	528	318	254	184	160
31	184	-----	194	246	------	564	------	461	-----	267	191	-----
Total	6,593	6,499	6,581	6,010	22,071	21,676	28,757	18,595	11,201	10,899	6,602	5,610
Mean	213	217	212	194	761	699	959	600	373	352	213	187
Cfsm	1.20	1.23	1.20	1.10	4.30	3.95	5.42	3.39	2.11	1.99	1.20	1.06
In.	1.39	1.37	1.38	1.26	4.64	4.55	6.04	3.91	2.35	2.29	1.39	1.18

Calendar year 1955: Max 3,170 Min 156 Mean 412 Cfsm 2.33 In. 31.62
Water year 1955-56: Max 2,830 Min 150 Mean 413 Cfsm 2.33 In. 31.75

Peak discharge (base, 2,400 cfs).--Apr. 6 (8 p.m.) 2,910 cfs (5.27 ft); Apr. 16 (2:30 a.m.) 4,650 cfs (6.87 ft).

* Discharge measurement made on this day.

Toccoa River near Blue Ridge, Ga.

Location.--Lat 34°53'14", long 84°17'07", on left bank three-eighths of a mile downstream from Blue Ridge Dam of Tennessee Valley Authority, 2¾ miles west of Morganton, and 2½ miles northeast of Blue Ridge, Fannin County.

Drainage area.--233 sq mi.

Records available.--November 1898 to March 1903 and April 1913 to September 1956 in reports of Geological Survey. November 1898 to March 1903 and April 1913 to September 1924 (prior to April 1913, revised) in Tennessee Division of Geology Bulletin 34, published as Toccoa River near Morganton.

Gage.--Water-stage recorder. Datum of gage is 1,538.77 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Apr. 20, 1931, staff gage and water-stage recorders at sites within 1 mile of present site at different datum.

Average discharge.--43 years (1913-56), 580 cfs (unadjusted).

Extremes.--Maximum discharge during year, 1,970 cfs June 25 (gage height, 5.25 ft); minimum, 3.8 cfs Feb. 2 (gage height, 0.79 ft); minimum daily, 4.0 cfs Feb. 2.
1913-56: Maximum discharge, 13,900 cfs July 9, 1916 (gage height, 13.0 ft, site and datum then in use), from rating curve extended above 5,000 cfs; no flow Dec. 6, 1930, to Mar. 3, 1931 (caused by closing of Blue Ridge Dam).

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Blue Ridge Lake beginning Dec. 6, 1930 (see p. 229).

Revisions (water years).--WSP 783: 1934 (adjusted monthly mean and runoff). WSP 823: Drainage area. WSP 1386: 1901, 1902(M), 1903, 1927, 1928(M), 1929, 1931-33. See also Records available.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.8	4.0	1.6	90
1.0	12	2.0	216
1.2	28	3.0	640
1.4	52	4.0	1,170

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	935	799	560	870	162	11	14	300	463	452	836	97
2	431	787	164	642	4.0	12	365	280	476	145	736	743
3	764	*677	557	442	5.0	12	372	15	490	566	740	798
4	1,100	819	96	438	5.0	13	475	350	482	504	672	*788
5	1,120	817	498	442	4.7	12	13	800	562	18	700	1,050
6	423	686	584	447	6.1	290	20	800	574	374	763	637
7	238	664	583	442	5.4	337	14	620	555	16	670	896
8	14	539	546	442	5.0	12	15	550	544	694	737	955
9	334	901	592	438	5.0	*12	14	15	633	58	717	776
10	746	806	781	442	7.7	12	742	400	598	*17	683	701
11	764	771	654	438	795	12	520	*394	794	17	765	797
12	760	718	730	*438	526	12	140	538	642	655	720	708
13	408	331	440	442	129	12	15	520	538	980	775	801
14	746	101	434	442	9.0	12	15	552	322	920	918	735
15	850	699	552	438	8.5	13	15	685	17	936	798	814
16	697	504	549	279	120	14	20	768	17	216	711	748
17	632	538	553	194	12	13	20	560	18	586	757	719
18	688	565	607	194	10	13	20	386	442	739	723	908
19	754	585	601	194	87	13	20	525	702	696	18	769
20	728	585	888	194	12	13	20	497	534	82	341	783
21	693	702	445	194	11	13	20	775	464	534	445	793
22	677	591	398	194	10	13	20	775	138	688	638	720
23	649	360	388	194	10	13	20	1,000	644	706	782	818
24	741	621	398	194	10	14	20	918	828	727	881	16
25	759	611	380	194	10	15	20	941	688	662	790	588
26	800	14	646	194	11	274	20	416	582	645	860	742
27	797	590	890	194	11	376	20	595	577	536	740	800
28	787	528	890	194	11	270	20	608	597	767	509	804
29	655	588	901	51	11	278	350	468	588	728	804	66
30	614	584	890	4.4	-------	219	350	443	725	741	741	556
31	756	-------	875	248	-------	223		376	-------	733	490	-------
Total	21,060	18,081	18,070	10,153.4	2,013.4	2,558	3,709	16,870	15,234	16,118	21,460	21,126
Mean	679	603	583	328	69.4	82.5	124	544	508	520	692	704

	Observed			Adjusted†		
Calendar year 1955:	Max 1,120	Min 5.3	Mean 528	Mean 493	Cfsm 2.12	In. 28.75
Water year 1955-56:	Max 1,120	Min 4.0	Mean 455	Mean 505	Cfsm 2.17	In. 29.47

* Discharge measurement made on this day.
† Adjusted for change in contents in Blue Ridge Lake
Note.--No gage-height record Apr. 11 to May 10, May 21-23; discharge estimated on basis of weather records, recorded range in stage, and records for Blue Ridge powerplant.

Ocoee River at Copperhill, Tenn.

Location.--Lat 34°59'29", long 84°22'36", on right bank 0.2 mile upstream from Fightingtown Creek and 0.4 mile downstream from Copperhill, Polk County.

Drainage area.--352 sq mi.

Records available.--March 1903 to December 1913, October 1918 to August 1925 (gage heights only), and November 1942 to September 1956 in reports of Geological Survey. March 1903 to September 1924 (March 1903 to December 1911, revised records; gage heights only after December 1913) in Tennessee Division of Geology Bulletin 34.

Gage.--Water-stage recorder and wooden control. Datum of gage is 1,445.28 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Aug. 27, 1925, staff or chain gages at several sites within 0.5 mile of present site at different datum.

Average discharge.--21 years (1903-6, 1907-10, 1911-13, 1943-56), 829 cfs (unadjusted).

Extremes.--Maximum discharge during year, 6,080 cfs Apr. 16 (gage height, 6.19 ft); minimum, 75 cfs Aug. 19 (gage height, 1.63 ft); minimum daily, 185 cfs July 11.
1903-13, 1918-25, 1942-56: Maximum gage height observed, 18.5 ft Nov. 19, 1906, site and datum then in use (discharge not determined); minimum daily discharge determined, 76 cfs Dec. 24, 1943, Oct. 5, 1947.

Remarks.--Records good except those for periods of backwater and no gage-height record, which are fair. Sixty-six percent of drainage area regulated by Blue Ridge Lake beginning Dec. 6, 1930 (see p. 229). Record includes diversion from this stream by Tennessee Copper Co.

Revisions (water years).--WSP 1386: 1945. See also Records available.

Rating table, water year 1955-56, except period of backwater (gage height, in feet, and discharge, in cubic feet per second)

1.9	145	3.5	1,490
2.2	305	4.0	2,260
2.8	755	5.0	4,060

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	820	923	698	1,020	520	377	281	637	725	884	1,000	400
2	744	931	424	827	315	455	654	628	979	367	850	900
3	791	*826	600	568	842	412	648	440	704	770	750	900
4	990	814	454	568	630	398	852	537	700	847	750	900
5	1,220	916	598	568	470	357	305	1,270	882	405	750	*923
6	808	894	842	575	755	641	978	1,130	750	632	750	1,060
7	*488	796	736	575	545	678	560	1,190	*751	427	*720	1,170
8	732	687	700	568	377	*412	419	988	764	888	702	896
9	502	804	772	560	338	357	370	350	824	320	711	881
10	717	1,080	784	568	293	331	*923	*630	795	195	700	878
11	818	875	865	568	880	324	1,050	728	896	*185	753	946
12	882	838	875	*568	974	312	496	864	929	524	728	906
13	650	620	774	568	426	398	318	854	730	1,200	791	920
14	934	298	550	568	*240	656	312	852	576	1,300	1,000	920
15	944	705	*654	568	235	515	c1,410	1,010	205	1,200	950	920
16	856	799	699	470	360	846	c2,560	1,120	195	500	900	920
17	801	608	689	318	815	598	704	864	200	800	850	920
18	811	706	694	324	744	500	552	680	662	900	850	1,000
19	826	854	818	391	782	440	478	765	914	900	250	900
20	870	731	954	364	1,750	405	440	765	862	300	600	900
21	848	694	800	344	696	377	405	909	678	700	700	900
22	782	696	544	338	508	357	398	1,110	303	800	900	892
23	786	845	537	364	433	350	380	1,110	1,020	900	1,000	971
24	792	884	531	405	405	344	370	1,310	1,030	900	1,000	212
25	886	630	531	377	455	331	360	1,200	1,100	850	1,000	691
26	847	472	600	370	440	594	350	836	749	800	1,000	873
27	904	715	1,050	357	433	692	344	846	742	700	900	922
28	922	616	1,050	370	530	580	338	859	755	900	900	936
29	932	773	1,080	338	412	596	653	646	760	900	900	256
30	607	690	1,060	195	-------	514	656	767	884	900	900	654
31	930	-------	1,030	306	-------	499	-------	333	-------	900	800	-------
Total	25,440	22,720	22,993	14,868	16,603	14,646	18,564	26,228	22,064	22,794	25,355	25,467
Mean	821	757	742	480	573	472	619	846	735	735	818	849

	Observed			Adjusted†		
Calendar year 1955:	Max 2,800	Min 155	Mean 731	Mean 697	Cfsm 1.98	In. 26.87
Water year 1955-56:	Max 2,560	Min 185	Mean 704	Mean 754	Cfsm 2.14	In. 29.15

* Discharge measurement made on this day.
† Adjusted for change in contents in Blue Ridge Lake.
c Backwater from Fightingtown Creek.
Note.--No gage-height record Apr. 23-25, July 13 to Aug. 7, Aug. 14 to Sept. 4, Sept. 15-20; discharge estimated on basis of weather records and records for Blue Ridge powerplant.

Fightingtown Creek at McCaysville, Ga.

Location.--Lat 34°58'53", long 84°23'12", on right bank 0.2 mile upstream from county highway bridge, 0.9 mile upstream from mouth, and 0.9 mile west of McCaysville, Fannin County.

Drainage area.--70.9 sq mi.

Records available.--November 1942 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,449.75 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--13 years (1943-56), 194 cfs.

Extremes.--Maximum discharge during year, 3,150 cfs Apr. 16 (gage height, 8.93 ft); minimum, 46 cfs Oct. 26, 27, 28 (gage height, 1.46 ft).
1942-56: Maximum discharge, 5,420 cfs Mar. 29, 1951 (gage height, 11.92 ft); minimum, 37 cfs Nov. 19, 1953; Sept. 29, 30, Oct. 22, 23, 24, 25, 26, 27, 28, 1954.

Remarks.--Records good except those for period of no gage-height record, which are fair. Some diurnal fluctuation at low flow caused by small mills above station.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.4	39	2.8	360
1.6	65	4.0	830
2.0	138	6.0	1,620

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	52	78	76	138	322	236	268	196	121	97	81
2	55	51	85	75	183	402	230	283	160	197	95	73
3	51	*51	92	75	a300	360	226	336	150	160	97	65
4	50	51	134	71	a400	353	308	280	146	164	92	64
5	49	50	143	70	a380	316	254	260	143	188	90	*95
6	49	49	115	70	a500	316	712	254	138	168	*90	108
7	*163	58	103	68	a450	307	548	350	*134	148	83	140
8	376	57	97	67	a300	*434	402	346	132	148	81	85
9	101	52	99	67	a250	325	350	289	134	170	78	73
10	76	55	92	67	a225	304	*325	*265	136	138	76	68
11	68	61	86	*68	a250	292	346	252	128	*123	75	65
12	64	54	83	67	a230	277	319	238	128	119	76	64
13	61	58	79	67	a220	316	301	230	134	138	75	62
14	62	97	*78	65	*200	628	286	223	251	128	71	58
15	58	101	78	65	196	504	746	216	146	119	71	55
16	55	85	75	65	198	664	*1,580	208	146	128	67	52
17	54	101	73	65	465	552	664	200	150	134	65	52
18	54	81	101	64	568	462	516	196	138	113	73	59
19	55	90	103	104	520	409	444	190	151	106	125	54
20	52	86	88	94	1,010	367	406	188	150	106	88	51
21	51	75	85	79	620	339	378	186	128	103	148	51
22	50	70	83	75	462	322	356	180	128	103	88	50
23	49	193	81	86	388	307	342	176	123	123	76	54
24	47	263	79	112	381	298	322	173	236	106	71	78
25	47	138	78	94	440	283	310	170	180	125	68	70
26	47	121	75	88	412	271	304	170	148	112	67	90
27	47	106	73	85	409	262	295	170	128	104	70	62
28	50	95	71	83	423	257	280	168	117	99	86	61
29	85	86	75	85	350	271	277	168	112	97	71	59
30	64	81	86	121	------	252	268	160	117	104	68	58
31	55	------	81	130	-------	243	-------	156	-------	108	65	------
Total	2,212	2,568	2,749	2,468	10,868	11,015	12,331	6,949	4,408	4,000	2,543	2,057
Mean	71.4	85.6	88.7	79.6	375	355	411	224	147	129	82.0	68.6
Cfsm	1.01	1.21	1.25	1.12	5.29	5.01	5.80	3.16	2.07	1.82	1.16	0.968
In.	1.16	1.35	1.44	1.29	5.70	5.78	6.47	3.65	2.31	2.10	1.33	1.08

Calendar year 1955: Max 1,540 Min 38 Mean 141 Cfsm 1.99 In. 27.03
Water year 1955-56: Max 1,580 Min 47 Mean 175 Cfsm 2.47 In. 33.66

Peak discharge (base, 1,200 cfs).--Apr. 16 (4 a.m.) 3,150 cfs (8.93 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.

Davis Mill Creek at Copperhill, Tenn.

Location.--Lat 34°59'43", long 84°22'56", on right bank 0.4 mile northwest of Louisville & Nashville Railroad station, 0.8 mile from post office at Copperhill, Polk County, and 0.1 mile upstream from mouth.

Drainage area.--5.16 sq mi.

Records available.--July 1940 to September 1941 (published as Mill Creek at Copperhill), December 1948 to September 1956.

Gage.--Water-stage recorder and concrete San Dimas flume and dam. Datum of gage is 1,451.06 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. July 16, 1940, to Sept. 30, 1941, water-stage recorder and sharp-crested weir at site 145 ft upstream at datum 1.58 ft higher.

Average discharge.--7 years (1949-56), 34.4 cfs.

Extremes.--Maximum discharge during year, 1,670 cfs July 4 (gage height, 4.45 ft), from rating curve extended above 150 cfs on basis of critical-depth determination at gage height 6.02 ft; minimum daily, 19 cfs Jan. 8.
1940-41, 1948-56: Maximum discharge, 3,950 cfs Oct. 6, 1949 (gage height, 6.02 ft), from rating curve extended above 150 cfs on basis of critical-depth determination of peak flow; minimum daily, 3.1 cfs July 30, 1940.

Remarks.--Records fair except those for periods of no gage-height record, which are poor. Flow includes an unknown amount of diversion from other drainage basins through the sulphuric acid plant of Tennessee Copper Co. Some fluctuation due to irregular release of wastes by Tennessee Copper Co. just above gage.

Cooperation.--Water-stage recorder inspected by employee of Tennessee Copper Co.

Revisions.--WSP 1206: Drainage area.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 6-15)

Oct. 1-28		Oct. 29 to Sept. 30	
1.60	25	1.3	16
2.0	48	1.8	40
2.5	95	2.5	98
3.0	163	3.0	163

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	32	28	24	31	36	35	46	46	45	39	a45
2	35	*33	30	25	46	42	38	60	41	46	40	a40
3	30	30	28	24	68	38	37	52	40	46	38	a33
4	28	*28	57	24	47	37	39	49	40	107	36	42
5	32	28	30	23	41	36	39	48	41	59	37	*32
6	*39	28	32	24	69	37	81	47	40	49	37	38
7	*163	32	30	21	43	44	34	57	*38	39	*37	32
8	43	28	27	19	34	*52	30	50	39	39	36	a30
9	36	28	28	20	36	39	30	46	39	43	36	a29
10	36	30	24	21	33	36	32	38	39	40	35	a28
11	36	29	25	*22	34	37	*37	*44	36	*38	36	a27
12	35	28	24	22	29	39	32	43	36	36	38	a26
13	37	34	24	22	30	44	32	43	46	46	39	a26
14	32	36	*24	21	*31	57	33	44	42	40	38	a25
15	32	32	23	23	34	48	124	44	40	46	37	a25
16	30	36	22	23	34	62	55	44	42	43	32	a24
17	30	30	22	23	66	46	49	41	69	41	28	a26
18	*34	30	30	24	44	41	49	44	48	38	38	a25
19	30	37	26	30	61	41	49	41	43	38	42	a25
20	32	28	23	34	53	38	44	41	44	39	49	25
21	31	30	22	23	44	38	44	42	44	38	46	28
22	32	32	22	24	40	39	44	43	43	38	37	28
23	32	50	26	29	38	38	46	39	44	38	a35	42
24	34	33	26	27	40	38	45	39	62	36	30	35
25	33	35	28	26	45	35	45	43	43	39	a29	36
26	32	32	26	24	38	36	44	40	42	36	a29	32
27	34	30	25	24	43	37	44	39	41	38	40	a30
28	38	28	24	27	36	38	44	41	41	37	a35	a28
29	38	29	25	28	34	41	44	41	50	37	32	a25
30	32	28	25	31	-------	36	45	a42	72	38	a30	a23
31	32	-------	22	26	-------	35	-------	43	-------	41	29	-------
Total	1,172	944	828	748	1,222	1,261	1,344	1,374	1,331	1,334	1,120	910
Mean	37.8	31.5	26.7	24.1	42.1	40.7	44.8	44.3	44.4	43.0	36.1	30.3
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 163 Min 21 Mean 35.7 Cfsm - In. -
Water year 1955-56: Max 163 Min 19 Mean 37.1 Cfsm - In. -

* 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.

North Potato Creek near Ducktown, Tenn.

Location.--Lat 35°00'54", long 84°22'58", on right bank 50 ft upstream from bridge on State Highway 40, 1½ miles south of Ducktown, Polk County, and 2 miles upstream from mouth.

Drainage area.--13.0 sq mi.

Records available.--May 1934 to September 1956. Prior to October 1950, published as Potato Creek near Ducktown.

Gage.--Water-stage recorder and concrete San Dimas flume. Datum of gage is 1,492.51 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 8, 1935, water-stage recorder and wooden weir and Oct. 8, 1935, to Aug. 25, 1948, water-stage recorder and Parshall flume, at same site and datum.

Average discharge.--22 years, 28.3 cfs.

Extremes.--Maximum discharge during year, 1,070 cfs Sept. 23 (gage height, 5.21 ft); minimum daily, 14 cfs Nov. 4, 6, Jan. 8.
1934-56: Maximum discharge, 7,080 cfs Apr. 6, 1936 (gage height, 7.2 ft), from rating curve extended above 1,100 cfs; minimum daily, 2.8 cfs June 16, 17, 1941.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Discharge includes diversion from Brush Creek and from Ocoee River. This diversion was small prior to June 1941. Some fluctuations caused by Tennessee Copper Co. plant's irregular pumpage from mines.

Revisions (water years).--WSP 823: Drainage area. WSP 1386: 1935.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.0	14	2.5	87
1.5	32	3.0	134
2.0	54	3.5	220

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	16	20	17	34	39	29	37	51	36	16	49
2	15	*16	24	18	56	58	29	68	32	32	22	23
3	15	16	19	22	154	48	28	87	29	26	22	22
4	16	14	85	26	82	36	38	54	30	118	18	46
5	17	15	28	22	51	36	31	42	28	56	a18	*26
6	*19	14	22	20	140	35	98	42	28	72	a18	33
7	179	17	19	17	50	64	38	64	*27	37	*18	23
8	57	15	22	14	37	*99	34	45	26	36	17	19
9	23	15	23	18	43	50	34	36	29	71	16	a19
10	20	20	19	18	33	44	31	*35	25	31	16	19
11	16	17	18	*20	39	41	*38	33	58	*27	16	18
12	18	16	18	19	32	36	26	32	35	24	a19	a18
13	21	19	18	19	31	50	25	30	49	89	39	a19
14	19	24	*19	18	*26	90	19	32	39	38	25	19
15	a18	20	19	17	28	56	178	32	29	41	22	19
16	a17	27	19	17	27	123	73	32	28	32	20	18
17	a16	20	20	15	116	54	47	30	57	28	19	20
18	a16	18	34	18	97	a48	39	30	39	25	35	a19
19	18	31	22	36	189	44	36	30	26	24	41	a18
20	a17	18	21	26	156	42	33	29	23	23	102	18
21	16	18	26	21	65	40	33	30	22	23	39	18
22	a15	18	28	20	54	39	33	29	26	26	26	19
23	a15	46	24	33	47	35	33	28	33	23	23	85
24	a15	26	21	24	50	39	30	28	69	22	22	31
25	a15	28	18	a22	61	35	30	30	30	29	22	28
26	a15	23	18	a20	43	33	29	30	26	20	21	19
27	15	19	18	19	60	32	29	29	25	20	44	18
28	24	17	17	20	46	32	30	29	23	19	25	18
29	27	15	20	20	40	33	28	28	23	a19	22	18
30	a19	18	21	33	-------	32	31	29	88	19	21	17
31	16	-------	18	24	-------	32	-------	29	-------	18	22*	-------
Total	749	596	718	653	1,887	1,475	1,210	1,139	1,053	1,104	806	736
Mean	24.2	19.9	23.2	21.1	65.1	47.6	40.3	36.7	35.1	35.6	26.0	24.5
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 275 Min 11 Mean 25.3 Cfsm - In. -
Water year 1955-56: Max 189 Min 14 Mean 33.1 Cfsm - In. -

* 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.

Ocoee River at Emf, Tenn.

Location.--Lat 35°05'48", long 84°32'07", on left bank 700 ft downstream from Tennessee Valley Authority powerplant, three-quarters of a mile upstream from former village of Emf, Polk County, and 2 miles downstream from Goforth Creek.

Drainage area.--524 sq mi.

Records available.--January 1913 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 837.88 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--43 years, 1,218 cfs (unadjusted).

Extremes.--Maximum discharge during year, 12,600 cfs Apr. 16 (gage height, 9.34 ft); minimum, 22 cfs May 17 (gage height, 2.45 ft); minimum daily, 373 cfs June 15.
1913-56: Maximum discharge, 29,400 cfs July 10, 1916 (gage height, 13.7 ft), from rating curve extended above 17,000 cfs; minimum daily, 5.0 cfs July 28, 1944.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Blue Ridge and Ocoee No. 3 Lakes (see p. 229) and by powerplant above station.

Cooperation.--Water-stage recorder inspected by employee of Tennessee Valley Authority.

Revisions (water years).--WSP 783: 1913-34.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

3.4	347	6.0	3,360
4.0	760	7.0	5,250
4.5	1,200	8.0	8,050
5.0	1,790		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	947	947	947	940	655	990	981	998	1,040	1,060	990	972
2	938	947	956	940	922	1,020	990	1,180	1,030	1,020	964	964
3	947	947	956	940	2,330	1,310	990	1,600	1,020	1,020	823	972
4	*964	947	1,030	940	1,920	1,610	998	1,580	*1,020	1,010	956	972
5	947	947	*1,030	800	1,790	1,100	*1,140	1,410	1,020	1,640	990	972
6	956	956	964	760	2,120	990	1,720	1,390	990	1,100	990	1,240
7	1,010	956	964	660	2,070	981	1,660	1,470	998	998	981	1,090
8	1,530	947	947	650	*1,650	1,010	1,610	1,500	998	998	990	981
9	981	956	964	640	1,340	990	1,240	1,360	990	1,050	*998	972
10	972	956	947	640	1,030	990	972	1,330	998	1,010	990	964
11	956	947	938	640	1,040	990	998	1,310	981	990	998	972
12	998	938	947	639	1,010	981	981	1,290	998	1,010	998	956
13	956	938	947	623	990	998	972	1,270	1,030	1,020	1,010	972
14	947	947	938	616	964	1,590	972	1,260	702	1,020	998	972
15	947	947	947	616	964	1,780	1,630	1,250	373	1,010	981	965
16	938	956	950	616	956	2,320	*6,080	1,020	886	1,010	981	970
17	947	972	950	616	1,300	1,790	2,100	844	1,010	998	972	955
18	947	964	950	616	1,990	1,670	1,610	1,300	998	990	972	970
19	947	964	950	631	1,470	1,550	1,560	1,270	998	990	990	970
20	930	956	980	616	4,470	990	1,010	1,270	1,010	981	990	964
21	930	947	960	631	1,920	990	1,010	1,280	990	981	1,080	964
22	947	947	950	608	1,650	990	990	1,330	981	1,010	990	964
23	956	956	950	616	1,380	947	990	1,350	998	1,010	990	964
24	938	964	950	662	1,290	981	990	1,300	1,020	627	972	1,040
25	938	964	950	647	1,600	981	990	1,240	1,010	1,010	972	1,180
26	938	964	920	631	1,280	981	754	972	998	998	972	972
27	947	956	980	623	1,010	972	990	1,010	972	856	972	964
28	956	964	960	623	1,040	972	981	998	1,030	990	981	964
29	964	956	950	623	808	990	990	1,020	1,010	998	981	828
30	947	947	950	678	-------	972	990	1,020	990	991	972	981
31	947	-------	950	694	-------	981	-------	1,030	-------	1,020	972	-------
Total	30,113	28,600	29,672	21,175	42,959	36,407	39,889	38,452	29,089	31,416	30,416	29,586
Mean	971	953	957	683	1,481	1,174	1,330	1,240	970	1,013	981	986

		Observed				Adjusted†				
Calendar year 1955:	Max	5,100	Min	44	Mean	1,008	Mean	975	Cfsm	1.86	In.	25.26
Water year 1955-56:	Max	6,080	Min	373	Mean	1,059	Mean	1,105	Cfsm	2.11	In.	28.69

* Discharge measurement made on this day.
† Adjusted for change in contents in Blue Ridge and Ocoee No. 3 Lakes.
Note.--No gage-height record Dec. 16 to Jan. 11, Sept. 15-19; discharge estimated on basis of recorded range in stage and Ocoee No. 3 powerplant records.

Ocoee River at Parksville, Tenn.

Location.--Lat 35°05'48", long 84°39'15", on right bank 0.4 mile downstream from dam and Ocoee No. 1 powerplant of Tennessee Valley Authority at Parksville, Polk County, and at mile 11.5.

Drainage area.--595 sq mi.

Records available.--January 1911 to September 1916, March 1921 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 716.96 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--40 years, 1,275 cfs (unadjusted).

Extremes.--Maximum discharge during year, 9,130 cfs Apr. 16 (gage height, 11.02 ft); minimum, 110 cfs Jan. 19 (gage height, 2.95 ft); minimum daily, 118 cfs Jan. 28, 29, 31.

1911-16, 1921-56: Maximum discharge, 21,700 cfs Mar. 29, 1951 (gage height, 20.22 ft); minimum daily, 10 cfs Oct. 28, 1925.

Remarks.--Records excellent. Flow regulated by Blue Ridge, Ocoee No. 3, and Parksville Lakes (see p. 229).

Cooperation.--Water-stage recorder inspected by employees of Tennessee Valley Authority.

Revisions (water years).--WSP 823: Drainage area. WSP 1386: 1926.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

2.9	90	4.0	775
3.1	175	6.0	2,770
3.5	400	10.0	7,800

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	1,420	1,490	148	122	1,680	144	1,090	1,420	170	1,500	232
2	166	1,390	1,690	1,420	122	1,710	1,410	1,520	224	1,400	1,510	170
3	1,110	1,410	1,230	1,440	126	152	1,440	1,540	144	1,470	967	1,140
4	*1,200	1,420	218	1,510	1,400	152	1,430	1,610	*1,190	1,480	200	1,500
5	1,140	1,310	*1,160	1,480	406	1,650	*1,490	1,570	1,210	1,490	200	1,500
6	1,200	166	1,460	1,510	1,330	1,830	1,560	152	1,440	1,490	1,240	1,620
7	1,200	1,220	1,470	126	1,670	1,820	1,540	1,440	1,440	890	1,500	1,520
8	208	1,480	1,500	126	*2,190	1,850	185	1,490	1,440	195	1,490	195
9	166	1,490	1,560	1,780	2,400	1,720	1,820	1,490	751	1,410	1,510	195
10	1,180	1,610	262	1,810	2,810	152	1,950	1,420	148	1,480	640	*1,080
11	1,390	1,600	185	1,840	2,280	166	2,160	1,470	1,340	1,390	185	1,450
12	1,390	736	1,260	1,780	249	2,380	2,090	1,470	1,130	1,500	190	1,450
13	1,370	185	1,350	1,860	1,820	2,350	2,260	1,470	1,130	1,480	1,080	1,300
14	1,260	1,580	1,350	126	2,180	2,250	198	1,460	1,480	242	1,490	951
15	1,150	1,490	1,600	122	2,220	2,340	575	1,470	1,500	166	1,490	144
16	195	1,500	1,370	857	2,300	2,360	*6,720	1,480	231	1,190	1,510	144
17	1,200	1,400	260	901	2,290	2,320	3,350	1,470	162	1,480	1,390	1,010
18	1,390	1,450	185	885	2,350	218	2,880	1,640	1,080	1,470	152	1,440
19	1,370	1,460	1,360	864	272	1,850	2,840	1,590	1,410	1,490	166	1,450
20	1,380	257	1,300	876	1,930	1,880	2,840	157	1,500	1,250	1,070	1,450
21	1,380	1,180	1,270	126	2,770	1,860	2,320	1,500	1,500	194	1,400	1,380
22	258	1,490	1,280	126	2,780	1,860	1,730	1,510	1,060	166	1,350	148
23	166	1,460	1,310	982	2,780	1,850	1,360	1,530	157	1,290	1,510	148
24	1,090	1,480	139	1,090	2,810	166	1,220	1,380	157	1,510	1,510	971
25	1,360	1,480	139	1,130	2,850	162	804	1,450	1,070	1,130	280	1,500
26	1,340	1,490	1,520	1,110	601	1,570	854	1,180	1,480	*1,430	175	1,490
27	1,370	285	1,540	990	1,670	1,090	854	144	1,470	1,500	1,110	1,500
28	1,410	1,220	1,580	118	1,710	1,110	152	968	1,500	248	1,500	1,480
29	1,390	1,500	1,630	118	1,690	1,070	139	1,010	1,490	166	1,500	152
30	273	1,500	1,630	502	-------	1,080	1,160	1,420	248	1,300	1,500	139
31	1,190	-------	148	118	-------	144	-------	1,420	-------	1,470	1,500	-------
Total	31,058	37,659	34,446	27,871	50,128	42,792	49,475	40,511	30,502	33,537	32,815	28,849
Mean	1,002	1,255	1,111	899	1,729	1,380	1,649	1,307	1,017	1,082	1,059	962

	Observed			Adjusted†		
Calendar year 1955:	Max 2,820	Min 139	Mean 1,137	Mean 1,098	Cfsm 1.85	In. 25.05
Water year 1955-56:	Max 6,720	Min 118	Mean 1,201	Mean 1,251	Cfsm 2.10	In. 28.62

* Discharge measurement made on this day.
† Adjusted for change in contents in Blue Ridge, Ocoee No. 3, and Parksville Lakes.

Hiwassee River above Charleston, Tenn.

Location.--Lat 35°12'33", long 84°39'31", on right bank 0.2 mile downstream from Ocoee River, a third of a mile upstream from Louisville & Nashville Railroad bridge, 2½ miles north of Benton, Polk County, and at mile 34.1.

Drainage area.--2,001 sq mi.

Records available.--October 1953 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 682.86 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Auxiliary water-stage recorder 1.8 miles downstream.

Extremes.--Maximum discharge during year, 15,800 cfs Apr. 16 (gage height, 14.26 ft); minimum, 455 cfs Sept. 3 (gage height, 1.67 ft); minimum daily, 898 cfs Jan. 29.
1953-56: Maximum discharge, 25,800 cfs Jan. 22, 1954 (gage height, 20.55 ft); minimum, 320 cfs Nov. 14, 15, 1954; minimum daily, 355 cfs Nov. 14, 1954.

Remarks.--Records good. Flow regulated by seven reservoirs (see p. 226).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

2.4	880	10.0	9,800
4.0	2,080	14.0	15,400
6.0	4,400		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,840	4,020	4,180	3,140	2,200	5,580	3,490	2,260	3,290	1,780	4,190	2,680
2	1,650	4,010	4,440	4,180	3,300	5,710	4,410	3,010	2,220	3,820	4,260	1,360
3	2,970	4,020	3,700	4,340	9,940	5,590	4,530	3,990	1,830	3,500	3,890	1,660
4	3,730	4,010	3,340	4,080	9,900	4,620	4,480	5,080	2,450	4,090	2,910	3,500
5	*3,650	4,020	4,610	4,440	6,910	5,470	4,060	4,390	2,760	3,730	2,850	4,090
6	3,740	2,990	*4,650	4,360	6,770	5,840	4,440	1,930	3,000	3,780	3,670	4,310
7	3,790	3,500	4,520	3,130	7,170	5,570	4,270	3,220	3,000	*2,810	4,180	3,920
8	3,920	*4,060	4,440	3,200	6,680	6,110	2,240	*3,860	*3,000	1,140	4,190	2,510
9	2,970	4,080	4,440	*4,320	6,610	5,880	2,950	3,430	2,540	2,010	4,190	2,500
10	3,520	4,220	3,390	4,450	6,840	4,590	4,200	3,230	1,110	3,030	3,550	3,500
11	4,010	4,220	3,020	4,430	6,380	4,240	4,510	3,270	1,930	2,890	2,850	4,090
12	4,000	3,630	3,750	4,810	4,400	5,530	4,520	3,100	2,770	2,950	2,820	4,140
13	3,970	2,360	4,170	4,430	5,260	6,190	3,840	3,030	2,760	2,930	*3,500	4,100
14	3,850	3,360	4,130	3,130	5,750	7,430	2,520	3,440	3,150	2,140	4,170	3,690
15	3,750	4,030	4,300	1,940	5,670	*7,860	2,790	4,530	3,250	1,810	4,170	2,640
16	3,020	4,320	4,350	2,820	5,820	8,530	*14,100	4,570	2,130	3,150	4,150	2,310
17	3,470	4,410	3,480	3,190	6,570	8,200	8,510	4,400	1,970	3,550	4,170	3,450
18	3,960	4,260	3,290	2,760	9,140	5,890	5,660	3,210	3,310	3,120	2,270	3,940
19	3,980	4,360	4,130	2,600	6,610	5,950	4,880	3,470	4,230	3,280	1,750	4,150
20	3,960	3,490	4,370	3,040	7,410	6,010	4,540	1,580	3,470	2,600	2,620	4,130
21	4,000	3,650	4,330	1,530	*8,120	5,820	3,780	2,850	4,310	2,350	3,240	4,000
22	3,090	4,180	4,320	1,780	7,380	5,470	2,990	3,140	3,320	2,550	3,260	2,650
23	2,760	3,970	4,020	2,990	7,000	5,340	2,720	3,170	2,580	3,220	3,340	1,510
24	3,330	4,320	2,650	4,020	6,910	4,060	2,550	3,220	2,140	3,350	3,580	2,660
25	3,960	4,400	2,050	3,800	6,910	3,710	3,040	4,350	3,210	2,860	2,490	3,660
26	3,910	4,080	3,100	3,700	5,360	4,780	2,350	4,280	3,190	3,160	2,210	4,140
27	3,920	2,760	4,390	3,060	5,560	4,630	2,150	4,350	3,180	3,260	2,820	4,140
28	4,020	3,540	4,500	954	5,940	4,540	1,540	3,090	3,390	2,050	3,660	4,140
29	4,100	4,240	4,540	898	5,690	*4,820	1,100	2,540	3,360	1,730	*3,630	5,120
30	3,180	4,180	4,590	2,710	-------	*4,620	2,290	3,050	2,050	3,330	3,740	1,890
31	3,500	-------	3,550	3,050	-------	3,830	-------	3,030	-------	4,190	3,740	-------
Total	109,520	116,690	122,740	101,282	188,200	172,410	119,450	106,070	84,900	90,160	106,060	98,580
Mean	3,533	3,890	3,959	3,267	6,490	5,562	3,982	3,422	2,830	2,908	3,421	3,286

	Observed			Adjusted†			
Calendar year 1955:	Max 11,800	Min 1,060	Mean 3,492	Mean 3,392	Cfsm 1.70	In. 23.01	
Water year 1955-56:	Max 14,100	Min 898	Mean 3,869	Mean 3,760	Cfsm 1.88	In. 25.58	

* Discharge measurement made on this day.
† Adjusted for change in contents in 7 reservoirs above station.

Oostanaula Creek near Sanford, Tenn.

Location.--Lat 35°19'39", long 84°42'19", on right bank 20 ft downstream from highway bridge, 1.3 miles southeast of Sanford, 3.5 miles northeast of Calhoun, McMinn County, and at mile 5.6.

Drainage area.--57.0 sq mi.

Records available.--October 1954 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 716.51 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 924 cfs Apr. 16 (gage height, 6.66 ft); minimum, 18 cfs Sept. 17, 18, 30 (gage height, 2.15 ft).
1954-56: Maximum discharge, 1,260 cfs Apr. 7, 1955 (gage height, 7.41 ft); minimum observed, 16 cfs Oct. 13-28, 1954; minimum gage height observed, 2.12 ft Oct. 28, 1954.

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

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 16				Apr. 17 to Sept. 30			
2.2	22	4.0	220	2.1	16	3.5	138
2.5	36	5.5	559	2.5	37	4.0	219
3.0	76	6.3	795	3.0	82	5.1	459
3.5	138						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	25	26	26	73	150	93	92	56	34	26	20
2	28	25	27	26	166	160	89	101	51	58	27	20
3	25	25	31	26	*587	170	87	117	47	35	26	19
4	25	25	92	25	788	160	87	*124	46	31	26	19
5	*25	25	94	25	643	130	88	97	*44	43	26	19
6	24	26	52	25	479	110	161	91	43	33	25	60
7	25	26	43	25	445	200	258	98	41	31	24	73
8	42	*26	40	24	400	300	139	106	39	30	24	36
9	40	26	37	*24	300	225	114	89	39	31	22	23
10	28	26	35	24	250	180	105	82	37	57	22	22
11	26	28	33	25	300	140	104	80	36	34	22	21
12	26	28	*31	25	275	110	111	76	36	30	23	20
13	25	26	31	24	250	*111	97	74	41	34	22	20
14	26	29	30	24	225	164	92	71	36	44	22	20
15	26	37	29	24	200	198	233	69	36	56	22	20
16	26	33	28	24	180	310	*788	67	37	78	22	19
17	26	38	28	24	250	321	450	66	34	*68	20	19
18	26	37	29	23	700	224	215	64	34	39	20	31
19	26	32	40	26	550	181	170	62	33	36	20	43
20	25	39	31	29	450	156	148	60	32	36	21	22
21	25	32	29	27	350	142	137	58	43	37	22	20
22	25	28	28	26	300	132	127	58	33	34	21	20
23	24	31	28	28	250	124	122	57	31	31	20	20
24	24	47	28	54	275	118	116	57	49	30	20	20
25	23	37	28	48	300	114	110	56	44	30	20	20
26	24	34	28	40	250	106	106	54	64	30	19	20
27	24	37	27	35	210	103	102	53	36	29	20	19
28	25	30	26	34	180	98	98	51	33	28	26	19
29	26	28	26	37	160	137	95	50	31	28	24	19
30	29	27	27	108	------	*132	93	49	31	28	26	19
31	26	-- --	26	119	------	100	------	47	----- --	28	22	--
Total	821	913	1,088	1,054	9,786	5,006	4,735	2,276	1,193	1,171	702	741
Mean	26.5	30.4	35.1	34.0	337	161	158	73.4	39.8	37.8	22.6	24.7
Cfsm	0.465	0.533	0.616	0.596	5.91	2.82	2.77	1.29	0.698	0.663	0.396	0.433
In.	0.54	0.60	0.71	0.69	6.38	3.27	3.09	1.48	0.78	0.76	0.46	0.48

Calendar year 1955: Max 916 Min 23 Mean 77.7 Cfsm 1.36 In. 18.51
Water year 1955-56: Max 788 Min 19 Mean 80.6 Cfsm 1.41 In. 19.24

Peak discharge (base, 400 cfs).--Feb. 4 (8 p.m.) 920 cfs (6.65 ft); Feb. 17 or 18 (time and discharge unknown); Apr. 16 (3 p.m.) 924 cfs (6.66 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Feb. 8 to Mar. 12; discharge estimated on basis of weather records and records for stations on nearby streams.

South Chickamauga Creek below Georgia-Tennessee State line

Location.--Lat 34°59'52", long 85°10'36", on right bank 1,200 ft downstream from Mackey Branch, 1.0 mile downstream from Georgia-Tennessee State line, and 16.3 miles upstream from mouth.

Drainage area.--249 sq mi.

Records available.--July 1952 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 659.11 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 5,020 cfs Feb. 4 (gage height, 14.57 ft); minimum, 57 cfs Oct. 27, 28 (gage height, 1.65 ft).
1952-56: Maximum discharge, 10,700 cfs Jan. 17, 1954 (gage height, 18.78 ft), from rating curve extended above 7,600 cfs on basis of velocity-area study; minimum, 44 cfs Oct. 5, 1954; minimum gage height, 1.46 ft Sept. 3, 1954.

Remarks.--Remarks good except those for periods of no gage-height record, which are fair. Some diurnal fluctuations caused by small mills above station.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 4				Feb. 5 to Sept. 30			
1.6	58	9.0	2,020	1.6	51	6.0	980
2.5	185	12.0	3,310	2.0	104	9.0	2,020
3.5	364	14.1	4,640	4.0	480	13.0	3,860
6.0	980						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	68	*100	93	503	600	215	213	*126	91	*75	136
2	71	66	101	91	1,910	674	*206	*239	118	*96	77	115
3	*69	68	131	*91	4,020	701	197	903	107	91	143	85
4	68	66	746	90	*4,620	631	289	1,090	106	88	91	*78
5	68	68	522	87	3,580	*492	269	436	104	109	a80	73
6	66	68	266	86	2,860	438	*1,800	329	102	154	75	68
7	73	*69	199	84	2,260	404	2,440	312	99	110	a69	125
8	124	71	173	82	1,110	650	856	374	98	93	a67	93
9	105	73	155	80	871	526	557	273	96	98	a66	80
10	76	74	137	79	732	408	451	235	94	106	66	74
11	70	75	126	79	806	376	562	213	93	91	75	70
12	68	78	119	79	730	356	526	197	91	81	a67	69
13	69	91	112	79	586	522	398	185	115	91	a80	68
14	66	158	108	78	487	2,190	348	174	104	102	a90	68
15	65	283	105	76	434	2,780	1,230	163	107	98	a78	67
16	64	180	101	76	418	2,440	3,820	156	106	94	a69	67
17	63	134	98	76	1,240	2,090	1,960	145	98	102	67	66
18	63	114	114	75	2,430	1,120	848	140	91	110	75	64
19	63	119	166	87	1,710	773	624	134	90	84	a300	62
20	63	117	134	131	2,480	598	497	131	93	78	636	62
21	60	101	118	110	2,440	494	416	128	93	77	511	60
22	59	94	111	97	1,070	438	368	126	88	77	230	60
23	59	156	110	107	742	390	338	122	87	78	98	60
24	59	320	107	279	802	354	303	120	84	82	82	60
25	59	179	104	259	923	318	280	117	85	85	75	60
26	58	176	100	187	935	294	260	115	99	78	73	60
27	58	158	97	156	826	278	246	115	99	77	75	60
28	58	130	94	144	1,190	262	230	115	82	72	107	59
29	66	115	93	160	787	266	217	112	78	68	81	58
30	79	104	94	371	-------	269	204	109	77	72	155	58
31	*73	---	96	437	-------	231	-------	107	---	72	109	--
Total	2,133	3,573	4,837	4,006	43,502	22,363	20,955	7,328	2,910	2,805	3,942	2,185
Mean	68.8	119	156	129	1,500	721	698	236	97.0	90.5	127	72.8
Cfsm	0.276	0.478	0.627	0.518	6.02	2.90	2.80	0.948	0.390	0.363	0.510	0.292
In.	0.32	0.53	0.72	0.60	6.50	3.34	3.13	1.09	0.43	0.42	0.59	0.33

Calendar year 1955: Max 5,080 Min 58 Mean 331 Cfsm 1.33 In. 18.03
Water year 1955-56: Max 4,620 Min 58 Mean 329 Cfsm 1.32 In. 18.00

Peak discharge (base, 4,000 cfs).--Feb. 4 (5 p.m.) 5,020 cfs (14.57 ft); Apr. 16 (4:30 p.m.) 4,000 cfs (13.23 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for station near Chickamauga.

South Chickamauga Creek near Chickamauga, Tenn.

Location.--Lat 35°00'50", long 85°12'27", on right bank a third of a mile upstream from bridge on U. S. Highway 11, 1½ miles south of Chickamauga, Hamilton County, 6 miles east of Chattanooga, and 12 miles upstream from mouth.

Drainage area.--428 sq mi.

Records available.--October 1928 to September 1956. Prior to October 1937, published as Chickamauga Creek near Chickamauga.

Gage.--Water-stage recorder. Datum of gage is 651.12 ft above mean sea level, datum of 1929. Prior to Oct. 7, 1930, staff gage at same site and datum.

Average discharge.--28 years, 693 cfs.

Extremes.--Maximum discharge during year, 9,290 cfs Feb. 4 (gage height, 14.31 ft); minimum, 93 cfs Oct. 23, 24, 26, 27, 28; minimum gage height, 0.52 ft Sept. 19, 20. 1928-56: Maximum discharge, 27,600 cfs Mar. 30, 1951 (gage height, 20.73 ft); minimum, 61 cfs Oct. 8, 1941; minimum gage height, 0.47 ft Sept. 4, Oct. 18, 19, 1954.

Remarks.--Records good. Some diurnal fluctuation at low flow caused by small mills above station.

Revisions (water years).--WSP 823: Drainage area. WSP 853: 1937. WSP 1386: 1932.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 5				Feb. 6 to Sept. 30			
0.60	87	8.0	3,000	0.50	93	8.0	3,000
1.0	172	10.0	4,020	1.0	180	10.0	4,020
2.0	470	12.0	5,720	1.5	306	12.0	5,720
4.0	1,240	14.0	8,650	3.0	835	14.0	8,650

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	109	*151	151	863	1,050	366	346	*224	180	*130	232
2	119	109	156	147	2,950	1,080	*349	*395	206	*224	134	208
3	*117	109	212	*147	6,280	1,230	336	1,040	193	201	345	151
4	113	105	1,220	145	8,210	1,090	474	1,940	188	168	268	*135
5	111	105	1,100	140	*7,870	*867	443	779	186	220	153	132
6	111	109	547	140	6,200	759	*2,360	547	180	274	135	140
7	131	115	392	136	4,860	694	4,200	498	180	206	127	253
8	187	121	327	134	2,870	1,030	2,930	659	172	188	125	184
9	165	121	286	129	1,600	963	1,180	512	168	215	117	140
10	127	119	252	127	1,300	727	815	412	164	249	111	127
11	115	127	225	129	1,360	659	887	372	162	215	123	123
12	111	125	210	129	1,370	624	843	343	160	186	106	128
13	111	142	200	127	1,080	763	656	318	178	188	139	122
14	113	303	187	125	879	2,900	578	303	178	201	139	114
15	109	530	180	125	779	4,610	1,650	286	184	188	120	109
16	111	369	172	125	743	4,520	5,680	269	190	186	114	107
17	103	222	163	123	1,700	4,180	4,460	255	178	180	111	109
18	105	184	194	123	3,820	2,640	2,180	246	170	203	117	111
19	103	187	297	151	3,750	1,460	1,120	236	170	168	228	107
20	101	194	266	207	4,020	1,070	863	232	170	158	1,100	99
21	103	165	222	192	4,360	867	712	226	170	151	1,000	104
22	101	142	207	167	2,700	751	645	222	168	172	506	104
23	97	210	197	182	1,380	666	592	215	162	151	206	112
24	95	508	192	463	1,360	610	522	210	160	166	164	122
25	99	356	184	519	1,650	554	477	203	164	214	151	122
26	95	309	174	359	1,750	505	443	203	178	142	139	114
27	95	277	165	292	1,450	477	419	201	180	142	137	106
28	99	220	158	269	2,070	450	392	201	160	125	170	107
29	125	187	154	297	1,480	446	369	201	149	126	147	109
30	131	160	154	719	------	443	352	197	147	134	176	107
31	*113	------	156	875	------	389	------	197	------	139	197	------
Total	3,535	6,039	8,700	7,094	80,704	39,074	37,293	12,264	5,239	5,662	6,935	3,938
Mean	114	201	281	229	2,783	1,260	1,243	396	175	183	224	131
Cfsm	0.266	0.470	0.657	0.535	6.50	2.94	2.90	0.925	0.409	0.428	0.523	0.306
In.	0.31	0.52	0.76	0.62	7.01	3.40	3.24	1.07	0.46	0.49	0.60	0.34

Calendar year 1955: Max 8,260 Min 95 Mean 592 Cfsm 1.38 In. 18.79
Water year 1955-56: Max 8,210 Min 95 Mean 591 Cfsm 1.38 In. 18.82

Peak discharge (base, 5,500 cfs).--Feb. 4 (10:30 p.m.) 9,290 cfs (14.31 ft); Apr. 16 (9 p.m.) 5,670 cfs (12.14 ft).

* Discharge measurement made on this day.

Tennessee River at Chattanooga, Tenn.

Location.--Lat 35°05'12", long 85"16'43", on right bank at Meadow Lake Country Club golf course, half a mile downstream from South Chickamauga Creek, 3 miles downstream from Chickamauga Dam, 3½ miles upstream from Walnut Street Bridge in Chattanooga, Hamilton County, and at mile 467.6.

Drainage area.--21,400 sq mi, approximately.

Records available.--April 1874 to October 1913, March 1915 to June 1930, and January 1936 to September 1956 in reports of Geological Survey. April 1874 to September 1924 in Tennessee Division of Geology Bulletin 34. July 1930 to September 1956 at site 38 miles downstream, published as Tennessee River at Hales Bar, near Chattanooga. Gage-height records collected in this vicinity since 1874 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 621.12 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Feb. 1, 1939, staff or chain gages, or water-stage recorders at several sites from 7 miles upstream from Chattanooga to Hales Bar Dam 33 miles downstream, at or within 0.2 ft of present datum; except staff gage at Bridgeport, Ala., 49.9 miles downstream at different datum Oct. 22, 1913, to Feb. 28, 1915, and Oct. 1, 1918, to Jan. 5, 1921. Auxiliary gages at several sites parts of period since Feb. 28, 1915. Present auxiliary gage site 2¼ miles downstream from base gage.

Average discharge.--82 years (1874-1956), using records at Hales Bar July 1930 to December 1935, 37,050 cfs.

Extremes.--Maximum discharge during year, 187,000 cfs Feb. 4; maximum gage height, 29.25 ft Feb. 4; maximum gage height at Walnut Street, 27.39 ft Feb. 4; minimum daily discharge, 6,700 cfs Jan. 15; minimum gage height, 10.45 ft Jan. 19.

1874-1956: Maximum discharge observed, 410,000 cfs Mar. 1, 1875 (gage height, 53.8 ft, present datum, at Walnut Street), from rating curve extended above 250,000 cfs; minimum daily, 1,200 cfs Nov. 1, 1953; minimum gage height, 0.0 ft Sept. 11-14, 1881, Sept. 19, 1883 (before filling of Hales Bar Pool).

Maximum stage known, 57.9 ft Mar. 11, 1867, present datum, at Walnut Street (discharge, above 459,000 cfs).

Remarks.--Records good. Since 1936, flow regulated by increasing numbers of reservoirs above station (see p. 226).

Revisions (water years).--WSP 353: 1874-1912. WSP 783: 1917. WSP 823: 1875(M). WSP 973: 1942. WSP 1386: 1932-34 (station at Hales Bar near Chattanooga).

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25,300	27,900	28,500	15,300	50,800	44,500	29,000	22,400	24,100	22,200	32,600	27,000
2	17,800	25,800	29,100	17,600	58,700	38,000	32,200	24,400	23,900	25,800	27,900	21,300
3	25,400	29,400	15,900	29,700	114,000	40,500	*30,400	25,500	24,500	27,400	37,400	27,300
4	27,800	30,000	8,000	30,900	158,000	34,300	33,000	33,500	25,000	13,800	27,600	29,500
5	23,800	29,400	29,500	21,700	130,000	43,200	31,600	23,300	23,900	24,200	29,000	26,000
6	21,400	30,100	33,100	22,100	103,000	43,900	45,500	19,100	24,900	26,300	28,500	27,700
7	22,000	30,400	33,700	24,400	*92,600	47,000	41,400	25,000	25,700	23,400	27,000	a29,400
8	25,700	31,200	36,900	26,400	71,100	45,700	26,000	22,200	24,900	21,400	29,900	a26,000
9	21,600	30,600	39,200	28,800	54,100	44,400	27,700	24,400	25,400	23,300	32,300	a30,000
10	27,100	30,600	33,000	33,300	46,600	43,200	34,000	22,800	22,200	20,200	31,100	a30,500
11	26,300	31,200	23,500	35,400	43,100	43,100	29,900	23,300	21,300	21,000	26,400	a30,400
12	27,000	27,000	24,900	32,600	36,500	44,000	29,500	21,900	23,900	24,000	28,500	a29,000
13	27,500	20,300	33,800	25,200	38,400	46,000	27,800	19,600	23,900	22,600	28,400	a33,800
14	25,300	26,700	31,000	13,300	37,700	51,800	25,500	34,900	20,500	21,200	29,400	a33,200
15	27,400	21,500	32,100	6,700	38,000	72,000	15,300	28,500	21,000	22,000	29,300	a33,400
16	22,100	18,900	37,400	25,500	45,200	94,100	44,200	22,500	18,600	29,100	30,000	a29,000
17	26,100	26,600	34,000	19,800	51,800	95,700	66,600	25,500	19,700	29,400	29,900	a28,200
18	26,300	28,200	14,200	14,700	78,600	79,900	51,200	22,900	25,200	28,500	27,700	a27,600
19	28,900	26,300	27,600	12,200	93,800	61,800	41,900	23,600	26,100	30,700	21,200	a28,600
20	31,700	27,500	32,200	17,300	88,800	53,200	41,600	17,500	26,700	26,200	28,400	a28,900
21	31,100	26,600	32,200	15,300	72,400	47,300	39,200	27,900	25,800	21,800	28,800	a28,800
22	23,100	24,200	32,100	18,200	60,300	47,500	29,700	33,900	25,000	22,500	27,600	a27,800
23	21,800	19,600	20,200	14,300	52,000	43,700	34,900	26,700	23,600	23,200	26,100	a28,400
24	27,400	19,300	12,200	22,600	48,100	38,100	33,000	28,600	16,200	28,400	27,700	a30,100
25	29,900	22,700	7,800	18,500	52,200	31,800	30,700	30,800	21,900	29,800	27,900	a24,100
26	27,900	19,500	14,400	18,100	46,500	42,600	30,300	24,900	22,900	28,100	25,700	a25,500
27	24,500	12,200	22,200	15,600	42,600	31,600	24,400	26,300	23,700	26,200	26,900	a30,000
28	26,500	27,200	23,600	9,300	45,700	35,000	24,600	26,300	22,900	26,700	27,500	a31,800
29	37,800	35,700	21,800	10,600	46,100	39,600	19,600	26,600	21,500	25,900	27,000	a34,200
30	23,000	*35,800	26,000	30,800	-------	41,400	26,200	25,600	21,800	35,300	25,800	a31,000
31	28,500	-------	26,800	41,700	-------	38,400	-------	*26,500	-------	*33,900	29,200	------
Total	808,000	792,400	816,900	667,900	‡1,896.7	‡1,503.3	996,900	786,900	696,700	784,500	882,700	868,500
Mean	26,060	26,410	26,350	21,550	65,400	48,490	33,230	25,380	23,220	25,310	28,470	28,950
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 117,000 Min 7,800 Mean 31,580 Cfsm 1.48 In. 20.03
Water year 1955-56: Max 158,000 Min 6,700 Mean 31,420 Cfsm 1.47 In. 19.99

* Discharge measurement made on this day.
‡ Expressed in thousands.
a No gage-height record; discharge estimated on basis of records of release from Chickamauga Dam.

Chattanooga Creek near Flintstone, Ga.

Location.--Lat 34°58'20", long 85°19'40", on right bank 0.8 mile south of Georgia-Tennessee State line and 2.3 miles northeast of Flintstone, Walker County.

Drainage area.--50.6 sq mi.

Records available.--December 1950 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 649.18 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--5 years (1951-56), 74.4 cfs.

Extremes.--Maximum discharge during year, 2,130 cfs Feb. 3 (gage height, 9.56 ft); minimum, 3.6 cfs Oct. 21, 22, 23 (gage height, 0.51 ft).
1950-56: Maximum discharge, 6,140 cfs Mar. 29, 1951 (gage height, 12.90 ft, from high-water mark in gage well); minimum, 1.0 cfs Sept. 8, 9, 1954; minimum gage height, 0.15 ft July 29, 1952.

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

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 1, June 3 to July 22, Aug. 1-19, Sept. 16-30)

0.50	3.8	6.0	320
1.0	8.1	6.5	392
1.5	15	7.0	513
2.0	38	7.5	695
5.0	226	9.3	1,920

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	5.5	*13	16	157	147	43	40	*34	9.0	*8.1	12
2	4.5	5.7	14	16	563	166	*41	*46	a25	*11	13	9.5
3	*4.4	6.0	24	*15	*1,870	163	a40	70	17	9.4	20	8.4
4	4.1	5.9	205	15	1,370	167	68	95	14	9.2	11	*7.8
5	4.2	5.8	162	14	1,090	151	a65	73	13	9.6	10	7.5
6	4.3	5.8	100	14	745	*137	208	62	13	9.3	9.4	35
7	4.8	6.3	72	14	490	122	622	182	13	10	8.8	30
8	5.8	6.2	55	13	302	162	256	192	13	10	8.5	12
9	5.5	6.2	44	13	229	165	169	136	12	11	8.2	10
10	4.6	6.7	33	13	181	146	135	105	11	12	7.8	9.2
11	4.2	6.8	29	13	208	132	126	85	11	9.9	7.3	8.3
12	4.1	6.8	25	13	196	114	111	70	10	9.6	7.2	7.9
13	4.2	26	23	12	172	122	94	58	10	9.5	7.2	7.6
14	4.1	46	21	12	147	235	87	47	11	9.8	7.6	7.4
15	4.0	68	19	12	135	334	135	39	11	10	7.6	7.0
16	4.0	24	17	13	135	430	1,060	33	11	11	7.3	6.7
17	4.1	19	16	12	249	448	436	28	11	10	7.1	6.2
18	4.0	15	25	12	479	282	240	25	11	9.6	7.2	5.9
19	4.0	18	40	17	387	197	170	23	10	9.1	32	5.8
20	4.0	21	33	20	468	156	136	21	9.5	8.7	99	5.8
21	3.9	15	31	18	366	131	112	19	11	8.4	51	5.8
22	3.9	13	29	16	246	115	99	17	11	8.5	15	5.7
23	3.9	30	28	22	183	99	88	16	9.3	a8.5	11	6.0
24	4.1	40	25	55	177	87	76	15	9.3	a9.0	10	6.5
25	4.0	a30	23	56	190	78	68	15	9.6	a9.8	9.3	6.6
26	4.1	a25	21	52	188	70	62	15	10	a9.2	9.0	6.3
27	4.2	a21	19	46	184	65	58	15	9.4	a8.6	8.8	5.9
28	*4.4	a18	18	45	200	60	52	14	8.8	a8.2	8.4	5.8
29	5.5	a16	17	51	168	58	47	15	8.7	a7.8	8.2	5.6
30	5.8	a14	17	153	-------	52	42	15	9.1	a7.8	8.2	5.7
31	5.7	---	17	173	-------	48	-------	13	-------	a8.0	8.1	-------
Total	136.8	532.7	1,215	966	11,475	4,839	4,946	1,601	366.7	291.5	441.3	269.9
Mean	4.41	17.8	39.2	31.2	396	156	165	51.6	12.2	9.40	14.2	9.00
Cfsm	0.087	0.352	0.775	0.617	7.83	3.08	3.26	1.02	0.241	0.186	0.281	0.178
In.	0.10	0.39	0.89	0.71	8.43	3.56	3.64	1.18	0.27	0.21	0.32	0.20

Calendar year 1955: Max 1,380 Min 3.3 Mean 78.0 Cfsm 1.54 In. 20.90
Water year 1955-56: Max 1,870 Min 3.9 Mean 74.0 Cfsm 1.46 In. 19.90

Peak discharge (base, 800 cfs).--Feb. 3 (3 to 5 p.m.) 2,130 cfs (9.56 ft); Apr. 7 (3 to 4 a.m.) 900 cfs (7.90 ft); Apr. 16 (7 to 9 a.m.) 1,420 cfs (8.62 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 stations on nearby streams.

Tennessee River at Hales Bar, near Chattanooga, Tenn.

Location.--Lat 35°01'43", long 85°32'48", in center pier of bridge on U. S. Highways 41, 64, and 72, 1.4 miles downstream from Hales Bar Dam, 5½ miles southeast of Jasper, Marion County, 7 miles upstream from Sequatchie River, 34.5 miles downstream from Chattanooga, and at mile 429.7.

Drainage area.--21,800 sq mi, approximately.

Records available.--July 1930 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 588.51 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Feb. 13, 1932, water-stage recorder on lower lock wall 1.4 miles upstream at datum 0.35 ft higher. Since Jan. 27, 1939, auxiliary water-stage recorder 22 miles downstream.

Average discharge.--26 years, 33,960 cfs.

Extremes.--Maximum discharge during year, 168,000 cfs Feb. 4; maximum gage height, 24.57 ft Feb. 5; minimum daily discharge, 4,600 cfs Jan. 28; minimum gage height, 4.31 ft Jan. 8.

1930-56: Maximum discharge, 241,000 cfs Dec. 31, 1932, Jan. 1, 1933, Mar. 30, 1936 (gage height, 31.2 ft); minimum daily, 2,900 cfs (estimated) Nov. 1, 15, 1953; minimum gage height, 1.21 ft Oct. 27, 1931, site and datum then in use.

Maximum stage known, 44.6 ft in March 1867, present site and datum. A stage of 37.4 ft occurred Mar. 8, 1917, present site and datum (discharge, 320,000 cfs, from rating curve extended above 225,000 cfs).

Remarks.--Records good. Since 1936, flow regulated by increasing numbers of reservoirs above station (see p. 226).

Revisions (water years).--WSP 853: Drainage area. WSP 973: 1942. WSP 1386: 1932-34.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23,400	26,700	30,600	19,000	51,600	46,700	30,200	22,500	24,500	22,000	32,100	28,800
2	16,800	28,200	31,900	17,000	64,100	43,200	33,800	25,300	23,300	*24,800	27,400	25,100
3	25,200	29,900	16,500	26,700	108,000	41,300	32,000	25,900	23,500	25,100	37,200	25,900
4	27,200	30,700	14,600	28,200	159,000	42,300	33,800	33,100	23,100	13,400	29,700	28,700
5	24,400	29,500	29,600	24,300	156,000	43,700	35,900	22,700	23,900	23,500	31,100	27,600
6	22,000	30,600	37,500	22,900	*114,000	46,400	48,100	19,300	24,500	24,800	28,400	26,800
7	22,000	30,800	37,100	23,800	98,300	47,200	49,800	27,600	24,800	24,400	27,400	29,400
8	25,800	31,600	37,300	27,400	81,500	48,700	33,200	23,300	24,000	22,900	28,400	30,000
9	22,500	31,100	42,600	30,200	61,400	49,200	30,800	25,500	24,900	23,600	31,900	30,500
10	28,100	31,000	36,000	34,400	50,800	47,800	35,000	22,900	21,800	18,900	32,800	30,500
11	27,000	31,600	29,400	37,500	48,700	47,400	32,700	22,600	21,700	20,600	27,700	30,400
12	28,300	30,000	29,600	33,400	41,300	45,000	28,900	22,100	23,600	22,900	29,900	29,600
13	28,900	20,500	34,600	27,400	41,400	48,400	*28,300	20,000	23,300	22,300	28,200	32,200
14	26,400	26,600	31,400	14,600	40,200	51,800	26,800	33,500	17,900	23,100	26,900	33,100
15	26,300	23,300	32,800	7,400	42,400	73,200	23,500	28,700	19,000	23,900	28,400	36,400
16	23,000	18,600	37,500	25,400	44,300	98,900	49,000	22,700	17,000	28,300	28,700	30,000
17	26,200	27,800	34,200	19,900	52,300	103,000	71,700	24,500	19,400	29,400	29,600	29,200
18	26,700	*29,200	19,300	15,000	78,700	84,500	55,600	22,900	23,800	28,800	30,100	28,500
19	28,600	27,400	28,800	16,100	97,000	66,900	44,100	22,700	26,100	29,400	23,800	29,100
20	31,700	28,300	31,800	13,900	91,700	55,800	41,400	17,400	26,400	29,500	27,700	29,100
21	30,800	28,300	33,300	15,000	79,800	48,300	38,600	29,100	24,900	25,000	29,100	29,700
22	24,000	25,100	32,700	15,600	66,600	47,900	30,100	31,600	22,700	23,100	26,500	28,300
23	22,600	21,800	25,200	17,100	57,100	45,900	36,100	27,200	23,600	24,300	25,800	32,300
24	26,200	18,600	14,000	23,200	48,600	43,300	34,500	27,100	17,900	26,300	27,800	29,500
25	30,600	25,600	9,500	19,700	54,900	32,800	30,800	30,700	23,400	27,900	29,100	28,100
26	26,800	22,400	14,200	20,400	50,900	42,300	30,600	24,800	22,800	28,400	26,600	26,400
27	25,100	13,000	22,200	16,700	45,200	34,600	24,000	24,200	22,300	27,200	25,500	29,800
28	26,700	28,900	25,900	4,600	48,400	36,200	25,400	26,200	20,900	29,400	26,200	32,800
29	35,700	36,800	*23,600	9,600	48,200	41,900	20,400	26,200	20,200	29,100	26,600	34,900
30	22,700	36,600	26,000	31,200	-------	42,400	25,200	25,100	23,400	34,600	25,200	32,000
31	27,100	-------	24,400	47,200	-------	40,300	-------	25,000	-------	32,400	*27,800	-------
Total	808,800	820,500	874,100	684,800	‡2,022.4	‡1,587.3	‡1,060.3	782,400	678,600	789,300	883,600	894,700
Mean	26,090	27,350	28,200	22,090	69,740	51,200	35,340	25,240	22,620	25,460	28,500	29,820
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 122,000 Min 9,500 Mean 33,250 Cfsm 1.53 In. 20.70
Water year 1955-56: Max 159,000 Min 4,600 Mean 32,480 Cfsm 1.49 In. 20.28

* Discharge measurement made on this day.
‡ Expressed in thousands.

Sequatchie River near Whitwell, Tenn.

Location.--Lat 35°12'22", long 85°29'48", on right bank 15 ft downstream from highway bridge, 1½ miles east of Whitwell, Marion County, 3 miles upstream from bridge on State Highway 27, and 4½ miles downstream from Griffith Creek.

Drainage area.--384 sq mi.

Records available.--December 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 632.73 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Tennessee Valley Authority). Prior to Sept. 18, 1927, staff gage at same site at datum 0.03 ft higher. Sept. 18, 1927, to Oct. 31, 1929, staff gage and Nov. 1, 1929, to Sept. 30, 1930, wire-weight gage, at bridge 15 ft upstream at present datum.

Average discharge.--35 years (1921-56), 722 cfs.

Extremes.--Maximum discharge during year 14,500 cfs Feb. 3 (gage height, 15.52 ft); minimum, 46 cfs Oct. 7; minimum gage height, 0.72 ft Sept. 30.
1920-56: Maximum discharge, 21,400 cfs Jan. 5, 1949 (gage height, 16.55 ft); minimum, 16 cfs Sept. 6-21, 27, 28, 1925.

Remarks.--Records good. Some diurnal fluctuation caused by two small mills above station.

Revisions (water years).--WSP 603: 1922(M). WSP 758: 1929(M). WSP 823: Drainage area. WSP 1033: 1943(M). WSP 1386: 1921-22, 1923-25(M), 1927-28(M), 1930(M), 1933(M).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-7		Oct. 8 to Sept. 30					
0.8	48	0.70	46	3.0	482	13.0	5,200
1.1	75	1.0	69	6.0	1,510	14.0	7,220
		1.5	125	10.0	3,000	14.5	9,000
		2.0	209	12.0	4,120	15.1	12,100

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	50	217	184	3,370	1,120	673	*437	380	115	*117	67
2	67	51	205	180	2,650	1,130	619	431	296	*164	124	74
3	63	52	221	175	8,130	1,280	*605	643	285	290	395	67
4	54	51	1,520	171	*11,900	1,750	2,100	1,220	223	184	282	65
5	50	49	3,380	166	8,710	1,570	3,810	1,180	199	158	357	63
6	48	50	2,780	161	6,680	*1,330	3,940	901	184	339	247	79
7	75	50	1,850	158	5,200	1,150	5,050	1,190	173	615	168	240
8	217	49	1,000	152	3,690	1,390	3,730	1,730	165	520	138	187
9	154	49	741	146	2,740	1,560	2,440	1,280	157	853	121	137
10	137	50	602	143	1,970	1,460	1,650	935	152	1,220	111	104
11	109	52	504	140	2,060	1,250	1,380	758	144	779	105	88
12	90	51	437	140	2,230	1,030	1,250	639	142	517	100	78
13	80	52	386	136	1,900	959	1,050	552	178	383	96	73
14	74	73	346	132	1,550	2,280	935	488	163	561	90	68
15	68	222	315	131	1,320	3,950	1,710	440	149	653	87	65
16	64	223	285	128	1,280	5,500	3,700	404	142	434	83	62
17	63	182	260	125	2,190	5,680	3,670	366	136	374	80	59
18	60	197	260	122	4,470	4,090	3,060	331	131	409	80	76
19	*59	211	290	131	5,530	2,720	1,980	301	126	380	110	93
20	58	315	323	140	4,530	1,820	1,510	277	148	282	119	61
21	56	328	323	148	3,150	1,400	1,150	257	130	229	143	57
22	55	272	309	149	2,240	1,160	972	240	184	197	126	55
23	53	309	296	158	1,690	993	843	227	185	175	125	55
24	51	925	280	217	1,490	884	745	221	184	163	103	53
25	50	850	262	280	1,540	789	666	211	157	163	89	56
26	49	556	245	320	2,010	714	605	203	180	148	86	53
27	50	424	229	366	1,740	663	556	197	154	140	78	51
28	*51	348	215	380	1,560	626	517	193	136	132	76	50
29	54	*293	*203	652	1,310	736	476	201	128	125	74	49
30	52	245	195	3,140	-------	983	450	209	119	121	73	48
31	51	----	187	4,330	-------	772	-------	*229	----	136	*70	----
Total	2,219	6,629	18,666	13,101	98,830	52,741	51,842	16,891	5,230	10,959	4,053	2,333
Mean	71.6	221	602	423	3,408	1,701	1,728	545	174	354	131	77.8
Cfsm	0.186	0.576	1.57	1.10	8.87	4.43	4.50	1.42	0.453	0.922	0.341	0.203
In.	0.21	0.64	1.81	1.27	9.57	5.11	5.02	1.64	0.51	1.06	0.39	0.23

Calendar year 1955: Max 7,850 Min 41 Mean 701 Cfsm 1.83 In. 24.77
Water year 1955-56: Max 11,900 Min 48 Mean 775 Cfsm 2.02 In. 27.46

Peak discharge (base, 5,500 cfs).--Feb. 3 (11 p.m.) 14,500 cfs (15.52 ft); Feb. 19 (5:30 a.m.) 5,860 cfs (13.41 ft); Mar. 17 (12:30 a.m.) 6,290 cfs (13.63 ft).
* Discharge measurement made on this day.

Paint Rock River near Woodville, Ala.

Location.--Lat 34°37'27", long 86°18'23", in NW¼ sec. 10, T. 5 S., R. 3 E., on left bank 20 ft downstream from bridge on U. S. Highway 72, 1,000 ft downstream from Southern Railway bridge, 2 miles west of Woodville, and 4 miles upstream from Little Paint Creek.

Drainage area.--320 sq mi.

Records available.--December 1935 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 570.95 ft above mean sea level, datum of 1929. Dec. 23, 1935, to Jan. 16, 1938, staff gage and Jan. 17, 1938, to July 24, 1940, water-stage recorder, at site 20 ft upstream at same datum.

Average discharge.--20 years (1936-56), 623 cfs.

Extremes.--Maximum discharge during year, 23,600 cfs Feb. 4 (gage height, 19.90 ft); minimum, 4.0 cfs Oct. 28 (gage height, 0.25 ft).
1935-56: Maximum discharge, 31,300 cfs Dec. 28, 1942; maximum gage height, 20.84 ft Jan. 5, 1949; minimum discharge, 1.3 cfs Oct. 21, 1954 (gage height, 0.28 ft).

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

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 29 to Dec. 15, Mar. 29, Mar. 31 to Apr. 4; rate of change in stage used as a factor Dec. 5, 6, Jan. 30, 31, Feb. 1, 3-8, 18-22; Mar. 14-19, Apr. 5-9, 15-19, May 7-10)

Oct. 1 to Dec. 5				Dec. 6 to Sept. 30					
0.10	2.5	1.5	63	0.30	6.7	4.0	400	16.0	5,050
.2	5.0	2.0	108	.5	12	5.0	606	17.0	6,650
.3	8.5	3.0	231	1.0	40	8.0	1,320	18.0	10,000
.7	24	5.0	606	1.5	74	11.0	2,290	19.2	17,800
1.0	38			2.0	123	14.0	3,620		

Note.--Same as following table above 5.0 ft.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	*5.4	*71	71	*2,700	*725	278	*233	*76	22	a24	20
2	6.0	5.4	62	69	1,890	872	*261	264	100	*51	*22	25
3	*6.0	5.7	58	*67	8,030	1,320	249	1,020	129	185	20	19
4	6.0	6.0	489	65	17,700	1,130	638	1,400	92	198	20	16
5	5.7	7.8	2,140	62	9,050	961	2,180	908	75	103	25	15
6	5.7	8.2	1,380	60	5,680	779	2,540	637	66	72	22	25
7	12	8.5	451	58	4,040	663	4,210	1,620	59	164	19	31
8	18	8.5	307	55	2,690	745	4,320	6,730	54	164	18	25
9	16	8.5	242	53	1,600	1,250	2,230	4,970	50	295	18	25
10	12	8.5	192	50	1,100	887	1,120	2,520	47	435	16	33
11	10	8.5	158	49	1,250	709	782	1,180	44	292	14	28
12	10	8.5	133	48	1,630	593	635	663	41	181	14	22
13	10	8.9	114	48	1,200	538	512	497	41	190	13	19
14	11	10	101	47	932	1,650	441	404	45	198	27	16
15	11	450	91	45	768	3,450	1,050	342	45	160	21	14
16	11	723	83	44	805	4,350	8,110	299	46	129	20	12
17	10	195	78	44	1,300	4,800	6,810	263	44	97	14	11
18	8.9	154	83	42	2,460	3,880	3,910	231	45	78	13	10
19	8.5	122	158	44	3,380	2,140	1,990	206	43	76	53	9.7
20	7.8	225	247	44	3,790	1,170	1,040	184	40	74	68	9.4
21	6.8	202	202	60	3,080	791	716	167	38	80	175	9.0
22	6.0	116	169	85	1,990	637	604	151	38	76	140	8.8
23	5.7	118	147	79	1,180	533	495	136	33	66	66	8.5
24	5.0	656	133	228	903	463	424	123	32	56	44	8.3
25	4.8	406	120	562	971	398	368	112	30	48	33	8.5
26	4.2	209	106	328	1,400	358	332	102	29	42	27	32
27	4.2	223	96	257	1,260	336	306	96	27	a39	24	49
28	4.8	173	86	219	1,160	319	282	91	25	a36	22	35
29	7.1	121	80	263	915	306	260	86	23	a32	20	25
30	7.1	89	76	1,480	------	317	242	80	22	a29	20	20
31	5.7	--	72	2,870	------	300	------	78	---	a27	*20	---
Total	253.0	4,290.4	7,925	7,496	84,854	37,370	47,335	25,793	1,479	3,695	1,052	589.2
Mean	8.16	143	256	242	2,926	1,205	1,578	832	49.3	119	33.9	19.6
Cfsm	0.026	0.447	0.800	0.756	9.14	3.77	4.93	2.60	0.154	0.372	0.106	0.061
In.	0.03	0.50	0.92	0.87	9.86	4.34	5.50	3.00	0.17	0.43	0.12	0.07

Calendar year 1955: Max 6,990 Min 4.2 Mean 526 Cfsm 1.64 In. 22.32
Water year 1955-56: Max 17,700 Min 4.2 Mean 607 Cfsm 1.90 In. 25.81

Peak discharge (base, 6,000 cfs).--Feb. 4 (3 a.m.) 23,600 cfs (19.90 ft); Apr. 16 (6:30 p.m.) 12,700 cfs (18.50 ft); May 8 (2:30 p.m.) 8,330 cfs (17.58 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 stations on nearby streams.

Flint River near Chase, Ala.

Location.--Lat 34°49'08", long 86°28'52", in SW¼ sec. 36, T. 2 S., R. 1 E., on left bank 250 ft downstream from Nashville, Chattanooga & St. Louis Railway bridge, a quarter of a mile downstream from highway bridge, a third of a mile downstream from Brier Fork, and 5 miles northeast of Chase.

Drainage area.--342 sq mi.

Records available.--May 1930 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 640.37 ft above mean sea level, datum of 1929. Prior to May 18, 1934, staff gage at railway bridge 250 ft upstream at same datum.

Average discharge.--26 years, 515 cfs.

Extremes.--Maximum discharge during year, 14,900 cfs Feb. 3 (gage height, 16.0 ft); minimum, 59 cfs Oct. 19, 25 (gage height, 0.90 ft).
1930-56: Maximum discharge, 42,000 cfs Jan. 21, 1954 (gage height, 25.00 ft); minimum, 44 cfs Sept. 20, 27, 30, 1931; minimum gage height, 0.82 ft Sept. 3, 27, 1954.
Flood of September 1929 reached a stage of 25.0 ft, from floodmarks (discharge, 42,000 cfs, from rating curve extended above 27,000 cfs).

Remarks.--Records good. Some diurnal fluctuation caused by small mills above station.

Revisions (water years).--WSP 823: Drainage area. WSP 853: 1936(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 30 to Feb. 1)

0.9	59	4.0	1,400
1.2	136	8.0	4,120
1.5	226	12.0	8,050
2.0	406	15.0	12,400

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	83	193	163	*895	*607	258	*324	*436	184	98	158
2	78	80	208	157	1,190	995	248	334	245	*665	106	93
3	*76	80	227	151	*11,000	920	242	1,510	187	348	204	93
4	72	78	2,460	148	8,600	750	4,830	920	169	239	145	88
5	70	76	*1,680	*145	5,090	566	2,380	515	160	486	145	88
6	72	80	654	145	2,180	497	2,900	579	157	354	*112	248
7	216	83	474	139	1,460	501	1,920	1,920	148	325	101	175
8	145	78	378	136	1,020	822	945	1,680	142	252	93	115
9	103	83	321	133	945	584	678	678	139	312	88	98
10	85	88	282	130	822	466	*561	654	136	275	88	93
11	80	85	252	130	1,510	414	533	607	139	202	85	88
12	78	85	239	130	1,040	382	492	351	130	175	83	88
13	80	284	226	130	822	394	427	314	196	304	83	*88
14	76	488	208	130	678	1,150	390	289	154	205	80	85
15	76	1,290	205	127	750	1,860	3,960	268	231	193	83	85
16	76	347	193	127	995	2,970	6,260	255	211	255	78	85
17	78	292	187	124	1,740	1,620	1,510	242	163	211	80	83
18	80	217	223	124	5,180	945	846	229	145	166	83	80
19	72	303	306	139	2,580	702	654	223	139	148	110	80
20	76	278	255	157	1,920	584	552	217	136	247	164	83
21	74	205	232	154	1,290	506	474	211	537	220	163	80
22	72	175	217	145	895	457	431	208	607	154	115	80
23	72	814	208	160	750	419	398	208	275	136	98	226
24	72	1,140	199	347	870	386	366	196	232	124	93	186
25	70	410	190	285	1,150	355	347	193	187	115	88	93
26	70	457	184	245	1,020	336	328	190	416	112	88	83
27	70	317	175	223	774	324	314	184	278	103	90	80
28	*78	258	169	217	726	310	296	184	196	103	93	78
29	106	220	163	464	607	292	282	181	169	101	96	76
30	103	202	160	2,700	------	282	296	172	157	101	93	76
31	90	----	160	1,400	------	268	------	166	------	98	139	----
Total	2,644	8,676	11,228	9,105	58,499	21,664	34,118	14,202	6,617	6,913	3,265	3,152
Mean	85.3	289	362	294	2,017	699	1,137	458	221	223	105	105
Cfsm	0.249	0.845	1.06	0.860	5.90	2.04	3.32	1.34	0.646	0.652	0.307	0.307
In.	0.29	0.94	1.22	0.99	6.36	2.36	3.71	1.54	0.72	0.75	0.36	0.34

Calendar year 1955: Max 13,100 Min 67 Mean 496 Cfsm 1.45 In. 19.68
Water year 1955-56: Max 11,000 Min 70 Mean 492 Cfsm 1.44 In. 19.58

Peak discharge (base, 5,000 cfs).--Feb. 3 (1 p.m.) 14,900 cfs (16.0 ft); Feb. 18 (7 p.m.) 6,500 cfs (10.5 ft); Apr. 4 (5 p.m.) 7,420 cfs (11.4 ft); Apr. 16 (12:30 a.m.) 11,000 cfs (14.3 ft).
* Discharge measurement made on this day.

Tennessee River at Whitesburg, Ala.

Location.--Lat 34°34'27", long 86°32'42", in NE¼ sec. 30, T. 5 S., R. 1 E., on right bank at Whitesburg, a quarter of a mile upstream from Aldridge Creek, a third of a mile upstream from Clement C. Clay Bridge on State Highway 38, 5½ miles downstream from Flint River, 11 miles south of Huntsville, 15½ miles downstream from Guntersville Dam, 58⅝ miles upstream from Wheeler Dam, and at mile 333.3.

Drainage area.--25,610 sq mi, approximately.

Records available.--October 1924 to September 1956. Prior to October 1936, published as "at Decatur." Gage-height records collected in this vicinity since 1875 (fragmentary prior to April 1909) are contained in files of Corps of Engineers and in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 549.00 ft above mean sea level, datum of 1929. Oct. 1, 1924, to Dec. 2, 1926, staff gage and Dec. 3, 1926, to Sept. 30, 1936, water-stage recorder, at site 28.3 miles downstream at datum 14.70 ft lower. Since Mar. 4, 1937, auxiliary water-stage recorder 28.3 miles downstream.

Average discharge.--31 years (1924-36, 1937-56), 41,820 cfs.

Extremes.--Maximum discharge during year, 230,000 cfs Feb. 6; maximum gage height, 19.80 ft Feb. 6; minimum daily discharge, 1,300 cfs June 24, July 1; minimum gage height, 0.90 ft Dec. 26.

1924-36, 1937-56: Maximum discharge, 283,000 cfs Jan. 1, 1927 (gage height, 23.2 ft, site and datum then in use); minimum daily, 700 cfs Sept. 7, 1952, Nov. 1, 1953, Aug. 1, 1954.

Maximum stage known, 31.4 ft in March 1867, present site and datum, from high-water profile by Corps of Engineers.

Remarks.--Records good. Discharge below 20,000 cfs computed on basis of records for Guntersville Dam, adjusted for storage and inflow. Since 1936, flow regulated by increasing numbers of reservoirs above station (see p. 236).

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1938, 1939, 1941, and 1942, superseding those published in WSP 893, 923, and 953, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1937		1937-Con.		1938-Con.		1938-Con.		1938-Con.	
Oct. 1	17,400	Nov. 29	23,200	Sept.11	20,600	Oct. 28	17,900	Dec. 14	20,200
2	17,900	30	20,000	12	19,800	27	20,000	15	20,200
3	16,800	Dec. 1	19,700	13	19,800	28	19,200	16	20,600
4	18,400	2	19,100	14	22,000	29	18,500	17	21,900
5	21,900	3	17,900	15	22,800	30	15,700	18	23,100
6	24,100	4	17,000	16	23,000	31	15,300	19	24,400
7	23,700	5	19,100	17	20,300	Nov. 1	14,500	20	25,200
8	24,000	6	20,400	18	20,300	2	13,200	21	22,000
9	21,800	7	16,900	19	21,800	3	12,300	22	21,300
10	26,000	8	17,500	20	21,800	4	11,200	23	21,300
11	31,700	9	18,100	21	21,900	5	14,500	24	22,400
12	30,900	10	17,500	22	20,400	6	15,600	25	22,200
13	28,000	11	16,600	23	19,200	7	17,400	26	24,400
14	23,600	12	15,200	24	18,400	8	16,100	27	33,200
15	16,600	13	13,300	25	17,600	9	20,600		
16	12,300	14	13,700	26	18,200	10	20,500	1939	
17	10,600	15	19,800	27	18,400	11	22,800	Jan. 16	3,640
18	13,400	16	24,100	28	17,700	12	22,800	17	1,810
19	19,700	17	25,700	29	19,000	13	23,200	18	2,900
20	22,700	18	29,800	30	19,600	14	21,900	19	2,990
21	23,300			Oct. 1	19,600	15	19,900	20	2,100
22	33,100	1938		2	19,800	16	17,800	21	1,980
Nov. 6	32,600	Aug. 19	35,400	3	18,900	17	17,300	22	1,740
7	30,400	20	31,600	4	25,600	18	17,900	23	1,960
8	30,100	21	30,400	5	23,400	19	27,800	24	3,220
9	28,100	22	30,200	6	22,000	20	31,600	25	4,350
10	25,900	23	29,000	7	16,000	21	32,700	26	3,180
11	24,500	24	29,400	8	16,000	22	31,200	July 21	1,190
12	24,800	25	27,300	9	17,400	27	28,300	22	1,820
13	27,200	26	26,400	10	19,300	28	27,400	23	2,150
14	30,500	27	22,600	11	19,200	29	24,800		
15	28,700	28	20,500	12	17,900	30	22,000	1940	
16	29,000	29	21,700	13	18,000	Dec. 1	22,600	Dec. 15	11,500
17	28,800	30	20,700	14	19,000	2	21,000		
18	28,100	31	20,700	15	18,600	3	19,700	1941	
19	31,100	Sept. 1	20,100	16	17,900	4	20,600	Nov. 2	2,920
20	32,300	2	20,700	17	18,400	5	23,000	23	2,400
21	28,100	3	20,100	18	18,000	6	20,500	Dec. 6	3,160
22	26,300	4	20,100	19	17,400	7	19,400	7	2,760
23	27,900	5	19,800	20	18,900	8	19,300		
24	26,700	6	19,800	21	17,900	9	23,700	1942	
25	24,800	7	20,500	22	18,000	10	19,400	May 17	2,890
26	25,600	8	22,800	23	18,900	11	19,600	24	2,550
27	25,600	9	23,900	24	19,100	12	20,600		
28	27,900	10	21,200	25	17,100	13	20,800		

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October 1937	846,900	47,600	16,800	27,320	-	-
November	892,600	47,200	20,000	29,750	-	-
December	970,600	64,600	13,300	31,310	-	-
Calendar year 1937	17,016,600	-	-	46,620	1.82	24.71
August 1938	1,449,500	83,000	20,500	46,760	-	-
September	611,600	23,900	17,600	20,390	-	-
Water year 1937-38	16,068,200	152,000	10,600	44,020	1.72	23.33
October 1938	578,700	25,600	15,300	18,670	-	-
November	694,800	40,200	11,200	23,150	-	-
December	758,000	44,700	19,300	24,450	-	-
Calendar year 1938	15,389,400	152,000	11,200	42,160	1.65	22.35

Tennessee River at Whitesburg, Ala.--Continued

Revised figures of monthly discharge, in cubic feet per second, 1938, 1939, 1941, 1942--Continued

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
January 1939	779,970	57,200	1,740	25,160	-	-
July	615,160	53,300	1,190	19,840	-	-
Water year 1938-39	14,807,970	221,000	1,190	40,570	1.58	21.50
Calendar year 1939	13,977,990	221,000	1,190	38,300	1.50	20.30
December 1940	620,800	32,400	10,600	20,030	-	-
Calendar year 1940	10,063,200	85,400	6,100	27,500	1.07	14.61
Water year 1940-41	8,572,120	64,300	6,210	23,490	.917	12.45
November 1941	476,790	21,100	2,400	15,890	-	-
December	526,690	26,200	2,760	16,990	-	-
Calendar year 1941	8,160,200	64,300	2,400	22,360	.873	11.85
May 1942	511,320	26,400	2,550	16,490	-	-
Water year 1941-42	9,411,270	110,000	2,400	25,780	1.01	13.67
Calendar year 1942	11,963,290	248,000	2,550	32,780	1.28	17.37

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23,900	34,400	31,400	18,000	59,900	56,600	30,700	20,700	25,500	1,30)	41,200	9,300
2	14,800	32,600	32,000	20,000	82,400	*57,000	38,800	*27,700	20,500	31,200	*34,600	3,200
3	21,200	35,900	17,000	24,800	126,000	59,300	31,200	41,500	21,500	28,100	40,000	19,900
4	23,500	36,600	13,700	31,400	188,000	53,400	37,000	44,400	22,900	24,200	22,000	*33,700
5	26,500	35,200	34,500	*23,400	223,000	53,500	46,600	28,600	23,000	35,900	11,600	35,800
6	26,500	15,200	43,000	20,000	226,000	54,200	67,900	26,800	26,500	35,400	38,000	38,800
7	23,200	32,200	49,700	30,800	194,000	54,600	72,500	46,700	23,600	14,300	35,200	45,600
8	29,300	37,700	46,500	26,600	151,000	59,500	51,500	44,200	26,900	7,600	33,400	22,400
9	13,200	34,700	51,700	30,000	114,000	62,600	49,700	43,400	25,900	26,100	33,700	7,200
10	32,500	30,500	40,200	36,200	77,600	61,300	54,100	34,300	18,700	*32,500	38,900	33,300
11	26,800	28,800	27,600	37,900	57,300	58,300	51,800	36,700	24,400	38,500	12,100	38,700
12	26,500	18,200	31,700	30,800	55,700	54,100	38,700	28,900	25,500	35,400	7,000	36,300
13	31,000	13,100	37,000	24,600	53,500	53,500	30,300	21,800	32,100	30,900	30,000	38,500
14	32,900	29,500	36,000	14,300	56,100	61,400	27,900	38,100	24,700	10,500	30,800	38,400
15	29,600	28,100	36,300	5,400	61,800	87,200	32,000	29,000	31,100	12,400	32,500	17,100
16	19,000	*34,300	36,900	30,100	53,200	114,000	75,000	32,300	11,400	37,000	33,000	15,400
17	33,400	41,200	33,900	16,700	66,400	129,000	101,000	32,300	5,300	40,500	32,600	28,700
18	33,300	40,800	18,100	12,400	97,200	130,000	97,400	24,100	31,900	39,100	17,500	37,200
19	31,200	34,100	35,300	14,100	109,000	116,000	82,800	20,300	36,200	40,700	12,700	40,700
20	28,300	29,100	35,000	21,100	121,000	82,000	65,200	13,400	35,000	37,500	28,200	37,800
21	30,200	31,200	33,100	12,300	131,000	62,800	53,100	25,800	30,100	2,700	35,800	34,500
22	20,200	23,100	33,900	10,600	115,000	60,400	39,300	33,300	28,500	6,400	36,400	15,900
23	21,200	24,400	25,300	14,300	86,700	57,900	39,300	29,800	11,100	28,100	39,100	14,700
24	30,300	23,600	23,300	24,600	81,300	53,600	42,800	31,600	1,300	29,700	33,600	35,100
25	31,500	32,400	7,000	21,600	71,800	53,700	34,000	25,000	27,800	33,400	12,400	34,800
26	26,600	28,200	27,900	25,400	61,100	39,200	39,700	25,100	30,800	41,300	9,600	33,900
27	26,800	13,900	25,200	25,000	60,100	41,900	34,300	19,500	26,800	40,900	28,100	30,300
28	29,700	39,200	27,600	10,000	60,900	42,200	35,100	20,900	28,100	13,700	31,400	29,500
29	27,800	39,200	27,900	8,300	59,000	48,800	19,600	24,700	24,200	9,800	36,600	28,600
30	30,500	35,200	28,100	39,100	-------	44,500	24,800	25,200	7,100	39,600	37,600	31,500
31	29,000	-------	23,400	53,100	-------	38,600	-------	34,700	-------	42,000	37,800	-------
Total	830,400	912,600	970,200	712,900	‡2,900	‡2,001.1	‡1,444.1	930,800	708,400	846,700	903,400	866,800
Mean	26,790	30,420	31,300	23,000	100,000	64,550	48,140	30,030	23,610	27,310	29,140	28,890
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 171,000 Min 1,200 Mean 39,340 Cfsm 1.54 In. 20.85
Water year 1955-56: Max 226,000 Min 1,300 Mean 38,330 Cfsm 1.50 In. 20.37

* Discharge measurement made on this day.
‡ Expressed in thousands.

Flint Creek near Falkville, Ala.

Location.--Lat 34°22'23", long 86°56'01", in SW¼ sec. 2, T. 8 S., R. 4 W., near left bank on downstream side of highway bridge, 1.2 miles downstream from Robinson Creek, 1.5 miles west of Falkville, and 2.8 miles upstream from Cedar Creek.

Drainage area.--86.3 sq mi.

Records available.--July 1952 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 580 ft (from topographic map).

Extremes.--Maximum discharge determined during year, 2,010 cfs Feb. 4 (gage height, 11.8 ft), but may have been greater during period of no gage-height record; no flow for many days.
1952-56: Maximum discharge, 6,100 cfs Mar. 21, 1955; no flow for many days each year.

Remarks.--Records good prior to Dec. 1, fair thereafter except for periods of no gage-height record, which are poor.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 20 to Sept. 6)

0.7	0	4.5	99
.8	.1	6.0	183
.9	.4	7.0	255
1.0	.8	8.0	361
1.1	1.4	9.0	550
1.3	3.1	10.0	795
1.6	6.8	10.5	970
2.0	14	11.0	1,280
2.5	24	12.0	2,230
3.5	54		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	1.2	0.8	13				9.7	44	2.9	1.1
2	0	0	1.0	.7	*78		a54		8.9	82	2.5	1.2
3	0	0	1.0	.7	1,100				7.9	*27	2.1	1.1
4	0	0	1.7	.7	1,700	a130		a160	7.3	19	2.0	1.1
5	0	0	2.1	.8	1,610				6.4	16	1.9	*1.0
6	0	0	2.3	*.8	880		a540		5.7	19	*1.8	2.3
7	0	0	2.1	.7	550				*5.0	16	1.7	.8
8	0	0	2.0	.5	255	(*)		a120	4.6	15	1.7	.4
9	0	0	1.6	.5	225	138			4.1	23	1.6	.4
10	.1	0	1.4	.4	183				3.6	34	1.6	.4
11	.3	0	1.2	.4	225	a92	(*)		8.8	18	1.5	.4
12	.1	0	1.0	.4	183		a340		7.9	12	1.4	.3
13	.1	0	.9	.4	147				4.8	28	1.3	.3
14	0	0	.8	.4	122			a67	13	20	4.6	.3
15	0	0	.8	.5	124				7.9	25	18	.3
16	0	0	.7	.5		a410	a500	(*)	6.5	22	16	.3
17	0	0	.6	.5				42	6.4	14	5.7	.3
18	0	0	.9	.5				36	5.4	10	3.0	.4
19	0	0	1.0	.8				30	5.0	10	1.9	*.4
20	0	0	1.6	.8	a470			26	61	374	2.9	.5
21	0	0	1.6	1.2				23	111	86	20	.5
22	0	.1	1.5	1.2				21	84	30	7.1	.5
23	0	2.4	1.4	1.5		a130		19	22	20	3.9	.6
24	0	9.0	1.3	1.9				17	16	16	2.2	.6
25	0	9.4	1.3	2.6			a88	15	60	13	1.4	.4
26	0	6.5	1.3	2.2				14	232	10	1.3	.4
27	0	4.3	1.2	2.0	a200			21	166	8.2	1.2	.3
28	*0	2.8	1.2	2.1		a74		19	40	6.5	1.2	.2
29	0	2.0	1.2	2.5				15	25	5.2	1.2	.1
30	0	*1.6	1.0	5.5				12	20	3.8	1.2	0
31	0	-------	.9	9.4	-------	-------	-------	10	-------	3.2	1.1	-------
Total	0.6	38.1	39.8	43.9	12,625	5,790	8,770	2,162	965.9	1,029.9	117.9	16.9
Mean	0.02	1.27	1.28	1.42	435	187	292	69.7	32.2	33.2	3.80	0.56
Cfsm	0.00023	0.015	0.015	0.016	5.04	2.17	3.38	0.808	0.373	0.385	0.044	0.0065
In.	0.0003	0.02	0.02	0.02	5.44	2.50	3.78	0.93	0.42	0.44	0.05	0.007

Calendar year 1955: Max 3,990 Min 0 Mean 106 Cfsm 1.23 In. 16.74
Water year 1955-56: Max 1,700 Min 0 Mean 86.3 Cfsm 1.00 In. 13.63

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of records for West Fork Flint Creek near Oakville.

West Fork Flint Creek near Oakville, Ala.

Location.--Lat 34°28'35", long 87°08'30", in SW¼ sec. 35, T. 6 S., R. 6 W., on left bank at upstream side of bridge on county highway, 0.9 mile east of Five Points, 0.9 mile upstream from Shoal Creek, 1¼ miles downstream from McDaniel Branch, and 2¾ miles northeast of Oakville.

Drainage area.--87.6 sq mi.

Records available.--August 1952 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 576.59 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 2,820 cfs Feb. 4 (gage height, 18.9 ft); no flow for many days.
1952-56: Maximum discharge, 3,180 cfs Mar. 22, 1955 (gage height, 20.28 ft); no flow for many days each year.

Remarks.--Records good above 10 cfs and fair below.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.0	0	1.0	33
.1	.2	1.5	83
.2	.5	3.0	278
.3	1.2	6.0	538
.4	2.7	11.0	1,090
.5	4.7	16.0	2,100
.7	14	19.0	2,850

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	2.5	5.5	75	131	66	58	10	38	7.6	1.4
2		0	2.7	5.5	*284	207	61	135	9.0	67	8.0	1.0
3		0	3.0	5.1	834	187	60	399	8.0	*70	14	.8
4		0	60	*4.4	2,700	143	366	262	7.2	39	11	.7
5		0	52	4.1	2,020	126	256	140	6.3	28	6.3	.6
6		0	27	4.1	1,090	116	1,160	104	5.5	23	*4.7	1.5
7		0	20	4.1	479	*113	1,320	166	*4.4	19	3.7	1.1
8		0	16	3.9	300	180	780	151	4.1	18	3.2	1.2
9		0	13	3.7	320	119	310	112	3.7	16	2.7	.9
10		0	11	3.5	256	104	244	92	3.5	16	2.4	.7
11		0	10	3.5	267	99	*565	78	3.2	14	2.2	.5
12		0	8.5	3.5	214	92	463	65	2.8	13	1.8	.4
13		0	7.6	3.3	173	123	289	58	2.7	54	1.6	.4
14		0	7.2	3.2	148	423	232	51	2.8	21	1.2	.2
15		0	6.7	3.2	141	675	538	46	5.2	37	1.7	.1
16		0	5.9	3.2	173	950	1,140	*41	7.2	21	1.2	0
17		0	5.5	3.2	583	655	646	36	7.2	16	1.4	3.4
18		0	9.3	3.0	819	407	330	32	4.7	28	1.1	13
19		0	16	3.7	646	278	232	28	4.4	25	.9	*2.0
20		0	16	5.1	842	220	187	25	70	404	1.4	1.3
21		0	14	5.5	725	187	154	23	782	182	7.9	.8
22		0	12	4.7	471	164	131	31	287	52	3.8	.7
23		41	12	5.9	289	141	115	44	75	36	2.2	.7
24		63	10	12	250	127	101	27	52	27	1.6	9.2
25		16	10	16	300	110	92	21	39	23	1.1	4.0
26		7.6	9.0	16	278	100	83	19	140	18	.8	.8
27		5.5	7.6	15	207	93	75	18	375	16	.8	.5
28	(*)	3.9	6.7	16	187	87	69	16	106	13	3.9	.4
29		3.2	6.3	20	148	90	64	15	62	12	6.6	.3
30		*2.8	5.9	59	------	79	59	13	47	12	2.5	.3
31		------	5.5	70	------	70	------	11	------	9.5	1.6	------
Total	0	143.0	398.9	318.9	15,219	6,596	10,188	2,317	2,116.9	1,367.5	110.9	48.9
Mean	0	4.77	12.9	10.3	525	213	340	74.7	70.6	44.1	3.58	1.63
Cfsm	0	0.054	0.147	0.118	5.99	2.43	3.88	0.853	0.806	0.503	0.041	0.019
In.	0	0.06	0.17	0.14	6.46	2.80	4.33	0.98	0.90	0.58	0.05	0.02

Calendar year 1955: Max 2,900 Min 0 Mean 94.2 Cfsm 1.08 In. 14.60
Water year 1955-56: Max 2,700 Min 0 Mean 106 Cfsm 1.21 In. 16.49

Peak discharge (base, 2,000 cfs).--Feb. 4 (11:30 a.m.) 2,820 cfs (18.9 ft).
* Discharge measurement or observation of no flow made on this day.

Elk River near Pelham, Tenn.

Location.--Lat 35°17'48", long 85°52'12", on right bank at downstream side of bridge on U. S. Highway 41, 1.1 miles southeast of Pelham, Grundy County, and 1.8 miles upstream from Caldwell Creek.

Drainage area.--65.6 sq mi.

Records available.--November 1951 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 981.62 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 3,810 cfs Feb. 3 (gage height, 11.30 ft, from floodmark); minimum, 1.5 cfs Oct. 25, 26; minimum gage height, 1.90 ft Aug. 31.
1951-56: Maximum discharge, 4,520 cfs Jan. 21, 1954 (gage height, 12.00 ft); minimum, 1.0 cfs Sept. 27, 28, 1954; minimum gage height, that of Aug. 31, 1956.

Remarks.--Records fair.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 11 to Nov. 19, Sept. 26-30)

Oct. 1 to Feb. 2				Feb. 3 to Sept. 30			
1.8	1.2	3.5	79	1.9	2.0	5.0	305
2.0	3.1	4.0	140	2.2	7.3	8.0	780
2.5	17	8.0	780	2.5	19	9.0	1,060
3.0	43	9.3	1,200	3.0	49	9.5	1,340
				3.5	90	11.0	3,330

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	3.0	24	30	500	129	58	47	98	10	21	2.9
2	2.6	2.6	28	27	600	198	55	50	59	337	20	2.9
3	2.3	2.4	60	26	3,090	290	61	68	34	267	16	2.7
4	2.2	2.3	1,070	24	*1,820	464	530	99	24	84	10	2.7
5	2.1	2.4	1,200	23	1,100	326	548	81	18	57	8.2	2.7
6	2.1	2.4	448	22	908	234	*531	67	15	69	7.3	5.9
7	3.6	2.4	202	21	794	191	584	76	13	75	6.3	4.6
8	3.5	2.2	134	19	464	292	347	114	11	56	5.6	3.3
9	2.7	2.2	95	19	329	270	227	90	10	397	5.1	3.0
10	2.7	2.2	71	17	250	214	172	74	9.3	702	4.7	2.9
11	2.6	2.1	60	17	329	176	154	63	12	322	4.4	2.9
12	*2.4	2.0	52	17	335	149	142	53	8.8	139	4.2	*2.8
13	2.6	2.0	45	17	264	178	113	45	8.2	94	4.0	2.7
14	2.6	*2.4	*41	16	208	468	100	38	8.8	71	4.0	2.6
15	2.4	2.7	38	16	208	646	280	*35	11	57	3.5	2.7
16	2.4	3.6	35	17	298	968	995	34	13	76	3.3	2.7
17	2.4	9.8	32	16	576	858	579	29	12	73	3.1	4.0
18	2.3	9.3	50	16	1,480	486	314	25	10	83	3.3	6.8
19	2.2	14	98	17	951	298	212	21	*8.5	*48	3.0	3.1
20	*2.1	40	75	33	622	209	*162	18	7.3	36	3.3	2.9
21	2.0	27	68	33	440	166	127	16	12	29	3.0	2.7
22	1.9	20	62	29	305	136	111	14	7.1	24	2.8	2.6
23	1.8	85	55	37	*226	*114	96	13	6.1	20	2.7	2.7
24	1.7	176	50	102	248	101	82	13	6.1	16	2.6	3.1
25	1.7	91	45	102	282	88	72	12	6.6	14	2.6	2.7
26	1.7	76	40	112	245	77	65	12	6.1	13	2.6	*2.4
27	1.7	61	36	91	210	71	60	11	5.6	11	2.4	2.4
28	*1.7	47	32	115	192	65	57	10	4.7	10	2.6	2.2
29	2.2	37	30	289	150	76	50	10	4.5	8.8	2.4	2.2
30	2.9	29	28	910	------	74	47	12	4.2	8.8	2.2	2.2
31	3.1	------	30	834	------	64	------	31	------	8.5	2.2	------
Total	73.0	761.0	4,334	3,064	17,424	8,076	6,931	1,281	453.9	3,216.1	168.4	92.0
Mean	2.35	25.4	140	98.8	601	261	231	41.3	15.1	104	5.43	3.07
Cfsm	0.036	0.387	2.13	1.51	9.16	3.98	3.52	0.630	0.230	1.59	0.083	0.047
In.	0.04	0.43	2.46	1.74	9.88	4.58	3.93	0.73	0.26	1.82	0.10	0.05

Calendar year 1955: Max 2,680 Min 1.7 Mean 143 Cfsm 2.18 In. 29.47
Water year 1955-56: Max 3,090 Min 1.7 Mean 125 Cfsm 1.91 In. 26.02

Peak discharge (base, 1,000 cfs).--Dec. 4 (10 p.m.) 2,040 cfs (10.09 ft); Jan. 30 (8 p.m.) 1,120 cfs (9.15 ft); Feb. 3 (time unknown) 3,810 cfs (11.30 ft); Feb. 18 (2 p.m.) 2,010 cfs (10.07 ft); Mar. 16 (8 p.m.) 1,100 cfs (9.11 ft); Apr. 16 (9 a.m.) 1,110 cfs (9.12 ft).
* Discharge measurement made on this day.

Bradley Creek near Prairie Plains, Tenn.

Location.--Lat 35°21'21", long 85°58'45", on left bank 165 ft downstream from highway bridge, 1.1 miles northwest of Prairie Plains, Coffee County, and 3.6 miles upstream from mouth.

Drainage area.--41.3 sq mi.

Records available.--November 1951 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 968.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 3,070 cfs Feb. 18 (gage height, 11.19 ft); minimum, 4.3 cfs Oct. 27, 28; minimum gage height, 1.18 ft Nov. 11-13.
1951-56: Maximum discharge, 4,050 cfs Mar. 22, 1955 (gage height, 11.95 ft), from rating curve extended above 2,000 cfs on basis of slope-conveyance study; minimum, 3.2 cfs Nov. 23, 24, 1954; minimum gage height, 1.01 ft Nov. 17, 18, 1952.

Remarks.--Records good.

Revisions (water years).--WSP 1386: 1952, 1954(M).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 8 to Jan. 29)

Oct. 1 to Feb. 18				Feb. 19 to Sept. 30			
1.1	3.7	2.5	106	1.3	3.8	3.0	166
1.2	4.8	4.0	302	1.4	6.8	5.0	462
1.3	7.5	7.0	820	1.5	13	6.6	732
1.5	16	9.3	1,600	2.0	61		
1.8	35						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.4	4.4	9.9	24	157	92	43	35	18	37	18	7.7
2	5.4	4.4	9.9	23	232	167	48	35	14	298	19	7.7
3	5.4	4.4	42	23	*1,150	170	45	48	13	60	17	7.2
4	5.4	4.6	665	22	931	139	730	44	13	36	15	6.8
5	5.2	4.6	237	21	491	112	194	36	13	54	14	8.7
6	5.2	4.4	131	21	561	100	*391	32	12	42	13	156
7	8.7	4.4	103	21	316	98	217	50	12	38	13	29
8	8.7	4.4	83	20	210	225	124	50	11	34	12	19
9	6.1	4.4	68	20	172	119	97	37	10	214	11	16
10	5.8	4.4	58	20	141	98	86	32	9.8	177	10	13
11	5.6	4.4	50	20	236	88	87	31	9.8	61	9.8	13
12	*5.4	4.4	45	20	151	83	78	28	9.2	49	9.2	*12
13	5.4	4.6	41	19	122	125	66	27	9.2	53	9.2	11
14	5.2	*7.1	*37	19	105	191	59	26	9.2	42	8.7	10
15	5.2	6.4	35	19	132	204	287	*25	9.2	43	8.7	9.8
16	5.0	11	33	18	159	422	478	25	8.7	45	*8.7	8.7
17	5.0	18	32	18	469	245	156	23	9.2	63	8.7	21
18	4.8	9.5	37	18	1,580	170	111	22	8.7	74	8.7	22
19	4.8	13	38	19	387	132	90	21	*8.7	*43	8.7	12
20	*4.6	12	34	19	295	111	78	21	8.7	38	9.8	10
21	4.6	9.1	32	19	203	98	68	20	8.7	34	9.8	9.8
22	4.6	8.3	30	18	158	88	63	19	8.2	30	9.2	8.7
23	4.6	80	29	19	*132	*78	*58	19	8.2	28	9.2	8.2
24	4.6	27	29	21	176	71	53	18	8.2	26	8.7	8.2
25	4.6	18	27	23	156	65	50	18	7.7	24	8.7	7.7
26	4.4	15	26	25	124	60	47	17	7.7	23	8.2	*7.2
27	4.3	14	26	24	116	56	44	17	7.2	22	8.2	6.8
28	*4.4	12	25	29	136	53	41	20	7.7	21	8.2	6.8
29	4.6	11	24	100	102	56	38	17	8.2	20	8.2	6.4
30	4.4	10	24	*622	------	49	36	14	8.2	19	8.2	6.4
31	4.4	------	24	235	------	46	------	17	------	18	7.7	------
Total	161.8	339.2	2,084.8	1,539	9,300	3,811	3,963	844	296.4	1,766	326.5	476.8
Mean	5.22	11.3	67.3	49.6	321	123	132	27.2	9.88	57.0	10.5	15.9
Cfsm	0.126	0.274	1.63	1.20	7.77	2.98	3.20	0.659	0.239	1.38	0.254	0.385
In.	0.15	0.31	1.88	1.39	8.37	3.43	3.57	0.76	0.27	1.59	0.29	0.43

Calendar year 1955: Max 1,910 Min 4.3 Mean 84.4 Cfsm 2.04 In. 27.77
Water year 1955-56: Max 1,580 Min 4.3 Mean 68.1 Cfsm 1.65 In. 22.44

Peak discharge (base, 600 cfs).--Dec. 4 (4:30 p.m.) 838 cfs (7.07 ft); Jan. 30 (7 a.m.) 845 cfs (7.10 ft); Feb. 3 (12:30 p.m.) 1,850 cfs (9.88 ft); Feb. 18 (9 a.m.) 3,070 cfs (11.19 ft); Apr. 4 (12 m.) 1,500 cfs (9.06 ft); Apr. 16 (1 a.m.) 927 cfs (7.39 ft).
* Discharge measurement made on this day.

Elk River at Estill Springs, Tenn.

Location.--Lat 35°15'30", long 86°07'17", in center of stream on downstream side of pier of old bridge, 250 ft upstream from bridge on U. S. Highway 41A, 400 ft downstream from Nashville, Chattanooga, & St. Louis Railway bridge, three-quarters of a mile southeast of Estill Springs, Franklin County, 1.0 mile upstream from Taylor Creek, and 1.4 miles upstream from Rock Creek.

Drainage area.--282 sq mi.

Records available.--December 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 859.10 ft above mean sea level, datum of 1929. Prior to Oct. 1, 1926, staff gage at site 100 ft downstream at same datum.

Average discharge.--35 years (1921-56), 475 cfs (unadjusted).

Extremes.--Maximum discharge during year, 5,480 cfs Feb. 4 (gage height, 10.00 ft); minimum, 28 cfs Oct. 27, 28, Nov. 1, 2, 6-13; minimum daily, 28 cfs Nov. 7-9, 12; minimum gage height, 1.33 ft Oct. 11, 12, 27, 28.

1920-56: Maximum discharge, 22,900 cfs Mar. 23, 1929 (gage height, 20.2 ft), from rating curve extended above 18,000 cfs; minimum, 10 cfs Oct. 9, 10, 1925; minimum daily, 11 cfs Oct. 10, 1925; minimum gage height, 0.4 ft for several days in September, October, November 1924, October 1925.

Remarks.--Records excellent. Prior to August 1949, diurnal fluctuations caused by power-plant upstream. Flow regulated by Woods Reservoir since 1952 (see p. 230).

Revisions (water years).--WSP 603: 1922(M). WSP 803: 1929(M), 1934-35.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.3	28	3.0	495
1.6	61	5.0	1,610
1.8	93	7.0	3,000
2.2	198	9.4	4,940

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	29	111	151	*1,630	526	364	208	214	62	51	38
2	42	29	198	148	1,070	923	310	204	174	651	54	38
3	42	29	181	146	1,570	1,090	165	197	132	1,360	59	42
4	42	29	2,410	108	4,240	1,220	987	88	104	985	59	45
5	43	29	2,370	102	4,940	1,120	967	120	48	335	60	65
6	43	29	2,340	102	4,200	840	1,140	171	47	346	59	327
7	156	28	1,540	102	2,690	791	1,330	402	55	370	68	594
8	356	28	438	104	2,910	1,020	1,310	374	57	446	64	434
9	49	28	422	104	1,810	1,010	780	346	68	768	57	162
10	42	29	442	104	1,070	760	434	276	89	1,380	42	106
11	37	29	307	104	1,070	621	346	165	130	1,070	41	113
12	*36	28	293	104	1,260	567	258	186	64	428	41	113
13	37	29	157	104	1,400	650	254	192	64	206	41	*113
14	36	*152	*180	104	715	1,070	251	195	64	402	41	108
15	35	216	251	95	846	1,860	749	*198	62	394	39	86
16	35	82	279	67	1,270	2,770	2,170	192	62	240	39	84
17	34	154	214	65	2,370	2,890	827	162	65	258	*38	88
18	33	140	214	64	4,260	1,400	204	118	64	349	38	86
19	*32	115	251	88	4,430	1,340	366	111	62	*438	39	84
20	32	106	352	100	3,310	720	434	111	65	248	43	84
21	32	104	231	104	1,600	621	459	91	*104	251	47	84
22	32	102	211	148	1,260	430	885	89	160	248	43	86
23	32	650	296	256	967	*705	*1,570	98	65	204	39	88
24	32	495	265	352	*1,080	484	1,670	821	64	122	37	88
25	31	422	198	198	1,170	332	444	882	65	122	37	86
26	31	202	195	248	972	374	276	61	64	128	37	88
27	30	118	174	204	868	370	268	93	62	165	37	88
28	*30	162	102	306	760	366	318	102	60	146	37	84
29	32	108	102	270	567	366	314	108	60	128	37	62
30	31	108	203	*2,260	------	363	307	113	65	86	37	43
31	30	------	162	1,340	------	363	------	128	------	51	36	------
Total	1,547	3,809	15,089	7,732	56,305	27,942	19,937	6,602	2,459	12,387	1,397	3,607
Mean	49.9	127	487	249	1,942	901	665	213	82.0	400	45.1	120

	Observed			Adjusted†		
Calendar year 1955:	Max 6,280	Min 28	Mean 591	Mean 571	Cfsm 2.02	In. 27.51
Water year 1955-56:	Max 4,940	Min 28	Mean 434	Mean 454	Cfsm 1.61	In. 21.91

* Discharge measurement made on this day.
† Adjusted for change in contents in Woods Reservoir.

West Fork Mulberry Creek at Mulberry, Tenn.

Location.--Lat 35°12'34", long 86°27'46", near right bank on downstream side of old bridge, 1,000 ft downstream from State Highway 50, 0.2 mile southwest of Mulberry, Lincoln County, and 1.7 miles upstream from confluence with East Fork.

Drainage area.--41.2 sq mi.

Records available.--December 1953 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 687.72 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 12,500 cfs Dec. 4 (gage height, 13.28 ft), from rating curve extended above 5,600 cfs on basis of slope-area determination at gage height 13.15 ft; no flow Oct. 2-6, Sept. 29, 30.
1953-56: Maximum discharge, that of Dec. 4, 1955; no flow at times each year.

Remarks.--Records fair.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 16				Apr. 17 to Sept. 30			
0.9	0	2.0	45	0.9	0	1.8	33
1.0	.07	2.5	130	1.0	.1	2.0	50
1.1	.2	3.5	372	1.1	.8	2.4	108
1.2	1.5	5.0	840	1.2	2.3	3.0	242
1.5	10	10.0	2,920	1.3	4.8	4.0	520
1.8	26	11.0	3,720	1.5	13		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.01	0.3	6.0	6.8	170	33	12	17	4.0	74	2.3	0.1
2	0	.2	20	6.2	538	133	10	77	3.6	56	7.2	.05
3	0	.3	248	6.2	*1,700	268	78	72	3.3	15	6.3	.03
4	0	.2	3,580	6.5	1,640	146	*1,470	39	3.0	94	3.0	.01
5	0	.3	331	6.2	450	100	194	27	3.0	39	2.1	.01
6	*0	.3	122	*6.5	341	75	544	34	*2.8	42	*1.6	66
7	3.5	.3	64	6.5	211	*64	225	*176	2.6	15	1.4	*7.5
8	3.6	.3	*42	6.5	136	54	130	67	3.0	8.6	1.1	2.3
9	.5	*.4	26	6.5	102	42	82	39	3.0	474	.8	1.4
10	.2	.5	20	6.5	73	35	58	27	2.8	47	.6	.8
11	.1	.8	18	6.5	247	31	50	23	2.6	24	.6	.6
12	.08	.8	15	6.5	124	29	33	20	2.3	*15	.6	.4
13	.08	1.5	14	6.2	83	77	25	16	2.1	11	.2	.3
14	.08	231	11	6.0	62	268	25	26	2.6	98	.1	.2
15	.07	38	10	6.0	120	201	774	19	3.6	32	.06	.1
16	.06	40	9.3	6.2	266	357	375	13	4.3	19	.04	.07
17	.06	18	9.0	6.2	1,110	190	154	11	3.3	13	.04	.06
18	.06	7.6	38	6.2	1,450	128	92	9.0	2.6	12	.04	.06
19	.06	92	28	12	323	82	67	8.6	2.6	7.8	.02	.05
20	.06	20	20	17	206	57	49	8.2	15	7.8	.05	.04
21	.07	10	18	12	130	44	40	11	96	77	.4	.03
22	.07	6.5	15	9.6	90	34	36	9.0	23	13	.3	.03
23	.07	300	14	37	72	30	32	6.7	11	8.6	.1	.03
24	.07	48	12	73	140	26	26	8.2	9.5	6.3	.06	.03
25	.06	31	10	54	110	20	24	5.9	28	4.8	.04	.02
26	.05	28	9.3	53	73	20	22	5.6	12	4.0	.03	.01
27	.05	18	8.3	35	66	20	19	5.2	7.1	3.3	.03	.01
28	.08	12	8.6	49	52	18	18	4.8	4.6	3.0	.8	.01
29	.8	8.2	7.6	869	35	15	17	4.8	5.9	18	.4	0
30	1.0	6.5	7.6	944	-------	15	17	4.3	3.8	4.6	.1	0
31	.5	---	6.8	256	-------	14	-------	3.6	-------	2.8	.1	----
Total	11.34	921.0	4,748.8	2,534.8	10,120	2,626	4,698	797.9	273.0	1,249.6	30.52	60.25
Mean	0.366	30.7	153	81.8	349	84.7	157	25.7	9.10	4.03	0.985	2.67
Cfsm	0.0089	0.745	3.71	1.99	8.47	2.06	3.81	0.624	0.221	0.978	0.024	0.065
In.	0.01	0.83	4.29	2.29	9.14	2.37	4.24	0.72	0.25	1.13	0.03	0.07

Calendar year 1955: Max 4,040 Min 0 Mean 83.9 Cfsm 2.04 In. 27.64
Water year 1955-56: Max 3,580 Min 0 Mean 76.8 Cfsm 1.86 In. 25.37

Peak discharge (base, 3,500 cfs).--Dec. 4 (2 p.m.) 12,500 cfs (13.28 ft); Jan. 29 (9 p.m.) 3,770 cfs (11.04 ft); Feb. 4 (8 a.m.) 4,730 cfs (11.70 ft); Feb. 18 (2 a.m.) 4,080 cfs (11.28 ft); Apr. 4 (2:30 a.m.) 6,950 cfs (12.55 ft).
* Discharge measurement or observation of no flow made on this day.

Elk River above Fayetteville, Tenn.

Location.--Lat 35°08'04", long 86°32'23", on right bank 100 ft downstream from highway bridge, 1¾ miles southeast of Fayetteville, Lincoln County, 4 miles upstream from Norris Creek, and at mile 93.9.

Drainage area.--827 sq mi.

Records available.--August 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 650.58 ft above mean sea level, datum of 1929.

Average discharge.--22 years, 1,370 cfs (unadjusted).

Extremes.--Maximum discharge during year, 18,700 cfs Feb. 4 (gage height, 21.45 ft); minimum, 143 cfs Oct. 25 (gage height, 1.47 ft); minimum gage height recorded, 1.40 ft Sept. 5, but may have been less during period of no gage-height record. 1934-56: Maximum discharge, 35,500 cfs Jan. 5, 1949 (gage height, 27.14 ft); minimum, 111 cfs Sept. 17, 1954; minimum gage height, 1.02 ft Oct. 27, 1941.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Prior to 1949, diurnal fluctuation caused by powerplant upstream. Flow regulated by Woods Reservoir since 1952 (see p. 230).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 4				Dec. 5 to Sept. 30			
1.4	120	10.0	5,100	1.4	145	15.0	9,050
2.0	335	15.0	8,650	2.0	350	19.0	13,300
2.7	650	17.0	10,600	4.0	1,300	21.0	17,500
4.0	1,330			10.0	5,050		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	179	163	500	465	3,230	1,750	1,060	940	1,140	393	250	200
2	173	156	800	401	3,650	1,950	1,020	1,000	715	665	350	180
3	163	160	1,000	397	*10,900	2,530	990	1,600	519	1,200	500	160
4	160	156	10,000	389	16,400	2,860	*5,660	1,260	465	1,000	325	150
5	153	153	9,000	378	14,300	2,650	4,620	960	433	1,300	260	*145
6	*153	153	6,500	*346	11,900	2,400	3,900	1,060	389	1,100	*238	828
7	196	156	4,000	340	9,490	2,030	4,230	1,270	*354	1,010	225	730
8	319	156	*2,600	329	5,700	2,070	3,170	1,810	343	705	210	680
9	447	*153	1,320	322	4,630	2,200	2,610	1,420	336	1,430	200	605
10	287	156	1,120	322	3,400	2,050	2,030	*1,170	332	*1,360	190	364
11	189	160	1,040	322	3,280	1,780	1,610	955	336	1,650	180	266
12	173	160	880	322	3,050	1,640	1,410	835	357	1,430	175	231
13	166	173	775	318	2,800	1,580	1,220	760	350	925	170	231
14	163	465	640	315	2,680	2,260	1,130	735	340	750	165	224
15	160	885	564	315	2,270	3,270	2,260	725	354	790	160	220
16	160	795	586	315	2,770	5,750	5,870	675	346	825	200	210
17	160	600	615	304	6,180	6,340	5,080	630	332	586	180	196
18	160	406	715	284	12,800	5,150	2,840	591	515	596	160	560
19	160	670	740	298	13,800	3,170	1,680	542	322	582	250	312
20	160	537	675	315	10,900	2,660	1,580	501	350	580	600	228
21	156	393	740	308	7,540	2,020	1,490	492	441	700	350	210
22	153	335	695	322	3,780	1,850	1,430	483	368	500	300	203
23	150	1,910	524	374	2,990	1,530	1,650	461	409	450	220	200
24	150	1,890	640	650	2,740	1,770	2,180	465	393	400	190	220
25	146	1,360	615	900	2,820	1,430	2,200	840	449	350	170	220
26	146	1,150	514	1,000	2,700	1,230	1,300	1,340	680	300	160	214
27	146	870	483	900	2,400	1,220	1,060	501	483	275	155	203
28	156	564	470	850	*2,210	1,180	960	417	413	270	200	200
29	189	479	409	1,500	1,980	1,180	975	437	385	265	180	200
30	196	400	378	4,000	-------	1,180	950	425	374	260	160	203
31	176	-------	385	5,500	-------	1,100	-------	433	-------	255	150	-------
Total	5,645	15,764	49,923	23,101	173,290	71,780	68,165	25,733	12,823	22,902	7,223	8,793
Mean	182	525	1,610	745	5,976	2,315	2,272	830	427	739	233	293

	Observed			Adjusted†		
Calendar year 1955:	Max 23,600	Min 146	Mean 1,623	Mean 1,603	Cfsm 1.94	In. 26.30
Water year 1955-56:	Max 16,400	Min 145	Mean 1,326	Mean 1,345	Cfsm 1.63	In. 22.15

Peak discharge (base, 8,000 cfs).--Dec. 4 (time unknown) 12,400 cfs (18.70 ft, from floodmark); Feb. 4 (6 p.m.) 18,700 cfs (21.45 ft); Feb. 19 (2 a.m.) 14,300 cfs (19.60 ft).

* Discharge measurement made on this day.

† Adjusted for change in contents in Woods Reservoir.

Note.--No gage-height record Nov. 30 to Dec. 7, Jan. 25-30, July 4-6, July 20 to Aug. 5, Aug. 7 to Sept. 4; discharge estimated on basis of weather records and records for stations at Estill Springs and near Prospect.

Bradshaw Creek at Frankewing, Tenn.

Location.--Lat 35°11'31", long 86°50'43", on downstream side of second pier from right abutment of bridge on U. S. Highway 64, 0.4 mile east of Frankewing, 2.2 miles downstream from Little Bradshaw Creek, and 10.5 miles east of Pulaski, Giles County.

Drainage area.--36.5 sq mi.

Records available.--November 1954 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 655.61 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 7,290 cfs Dec. 3 (gage height, 12.65 ft); no flow Oct. 1-6, 20-27.
1954-56: Maximum discharge, 12,600 cfs Mar. 21, 1955 (gage height, 16.38 ft), from rating curve extended above 7,200 cfs on basis of contracted-opening determination of peak flow; no flow at times each year.

Remarks.--Records poor.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 4-12, Mar. 19 to Apr. 6, May 6, May 8 to June 25, June 28 to July 1)

Oct. 1 to Apr. 6				Apr. 7 to Sept. 30			
1.04	0	2.5	79	1.08	0.03	1.7	15
1.1	.2	3.0	138	1.1	.05	2.0	36
1.2	1.1	5.0	546	1.2	.6	2.5	78
1.3	3.4	6.0	810	1.3	2.0	3.0	138
1.5	10	8.0	1,650	1.5	6.5	5.0	546
2.0	40	9.0	2,360				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.2	4.0	5.9	128	54	29	26	1.8	465	2.6	0.3
2	0	.2	8.1	5.9	671	102	27	23	1.6	209	3.3	.2
3	0	.2	1,170	5.6	1,680	132	157	26	1.5	49	1.3	.1
4	0	.2	1,270	5.6	1,940	67	*508	21	1.5	26	1.2	.1
5	*0	.2	92	5.3	437	59	91	18	1.3	15	.6	*.1
6	0	.2	45	*5.0	378	53	438	17	*1.2	12	.6	2.2
7	.7	.2	33	4.6	203	*50	106	18	1.2	9.0	.3	3.0
8	.08	.2	*26	4.0	122	49	69	14	1.0	7.9	.3	1.3
9	.02	*.2	20	4.0	94	42	54	12	.9	314	*.3	.8
10	.05	.2	16	4.0	89	39	48	9.3	.9	*34	.2	.5
11	.02	.3	13	4.6	152	38	44	8.6	.8	21	.1	.3
12	.02	.3	12	4.3	83	39	35	6.8	.8	15	.1	.3
13	.02	2.0	11	4.0	68	81	32	6.0	.9	12	.08	.2
14	.02	20	9.3	3.7	60	227	30	5.2	.9	11	.08	.2
15	.02	11	8.5	4.0	187	112	407	5.2	1.2	10	.1	.2
16	.02	5.0	6.9	4.0	205	254	145	5.0	1.2	8.2	.08	.1
17	.02	4.0	6.5	3.7	*1,080	125	81	*4.5	.9	6.8	.08	.1
18	.02	2.7	15	3.7	1,240	95	66	4.2	.8	6.0	.3	.2
19	.02	30	13	8.4	269	76	58	3.8	.6	5.2	19	.2
20	0	8.1	11	6.9	154	62	51	3.8	188	5.5	8.6	.2
21	0	4.0	10	5.6	104	56	46	3.6	41	5.0	5.0	.08
22	0	2.8	9.3	4.6	84	51	44	3.2	15	4.0	2.4	.08
23	0	64	9.3	13	75	47	41	5.2	6.2	3.6	1.6	.08
24	0	14	8.9	26	104	44	37	7.9	4.8	3.2	1.2	.08
25	0	13	8.5	24	94	39	34	3.8	94	3.0	.9	.08
26	0	10	7.3	23	76	38	32	3.4	42	2.8	.6	.04
27	0	7.3	6.9	19	73	37	28	3.2	22	2.4	.6	.04
28	.02	5.6	6.5	26	64	35	26	3.2	12	2.2	1.0	.03
29	.2	4.0	6.2	1,200	56	33	23	2.6	6.2	2.4	.8	.03
30	.2	3.4	6.5	*704	------	31	30	2.2	4.8	2.0	.6	.03
31	.2	------	6.2	151	------	30	------	1.8	------	1.6	.4	------
Total	1.65	213.5	2,875.9	2,293.4	9,970	2,197	2,817	277.5	457.0	1,273.8	54.32	11.17
Mean	0.053	7.12	92.8	7.40	344	70.9	93.9	8.95	15.2	41.1	1.75	0.372
Cfsm	0.0015	0.195	2.54	2.03	9.42	1.94	2.57	0.245	0.416	1.13	0.048	0.010
In.	0.002	0.22	2.93	2.34	10.16	2.24	2.87	0.28	0.47	1.30	0.06	0.01

Calendar year 1955: Max 6,350 Min 0 Mean 77.3 Cfsm 2.12 In. 28.73
Water year 1955-56: Max 1,940 Min 0 Mean 61.3 Cfsm 1.68 In. 22.88

Peak discharge (base, 2,500 cfs).--Dec. 3 (11 p.m.) 7,290 cfs (12.65 ft); Jan. 29 (9 p.m.) 5,890 (11.65 ft); Feb. 4 (7 a.m.) 6,420 cfs (12.03 ft); Feb. 17 (10 a.m.) 4,280 cfs (10.50 ft), July 1 (11 p.m.) 4,080 cfs (11.25 ft); July 9 (9 a.m.) 2,570 cfs (9.60 ft).
* Discharge measurement or observation of no flow made on this day.

Richland Creek near Pulaski, Tenn.

Location.--Lat 35°12'51", long 87°06'05", on right bank 1,200 ft upstream from bridge on U. S. Highway 64, 1 mile downstream from Weakley Creek, and 4 miles west of Pulaski, Giles County.

Drainage area.--366 sq mi.

Records available.--April 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 642.54 ft above mean sea level, datum of 1929.

Average discharge.--22 years, 588 cfs.

Extremes.--Maximum discharge during year, 12,200 cfs Feb. 18 (gage height, 17.05 ft), minimum, 18 cfs Sept. 18, 19 (gage height, 0.73 ft).
1934-56: Maximum discharge, 75,000 cfs Mar. 21, 1955 (gage height, 27.49 ft), from rating curve extended above 32,000 cfs on basis of contracted-opening determination of peak flow; minimum, 7.9 cfs Sept. 11, 1954 (gage height, 0.52 ft).

Remarks.--Records good.

Revisions (water years).--WSP 823: 1935-36(M), drainage area. WSP 1386: 1935-36, 1938, 1944, 1945-46(M), 1948, 1950-51(M).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 6-8)

Oct. 1 to Jan. 29				Jan. 30 to Sept. 30			
0.70	18	2.0	200	0.70	16	10.0	3,220
.9	35	3.0	470	1.3	90	12.0	4,310
1.4	96	7.0	2,020	2.0	225	15.0	7,050
				3.0	500	16.0	8,550
				6.0	1,620	17.0	12,000

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	34	116	104	2,000	580	268	305	98	122	34	52
2	32	32	145	104	3,180	832	260	315	84	214	111	38
3	29	31	307	100	7,410	997	250	325	80	189	66	31
4	26	31	3,010	96	8,980	1,040	889	288	75	126	48	28
5	*24	31	1,930	92	6,630	882	*476	250	70	136	43	25
6	25	31	900	*96	4,070	794	1,550	225	*68	156	37	*123
7	29	33	*572	95	2,770	*756	1,600	215	61	106	*34	106
8	28	*29	437	89	1,900	882	983	208	59	90	31	58
9	28	29	353	85	1,470	738	748	180	56	526	30	41
10	28	.37	290	82	1,160	686	633	166	54	420	26	34
11	26	38	248	82	1,210	633	612	156	51	*151	24	30
12	25	37	215	83	994	560	494	147	48	122	22	28
13	28	269	192	82	850	654	419	138	54	119	22	25
14	28	1,080	177	81	752	2,520	380	135	82	119	24	24
15	28	693	165	82	1,070	2,220	1,410	238	89	191	132	22
16	28	280	148	79	1,620	2,120	2,880	178	82	114	51	22
17	28	238	143	76	4,120	1,710	1,640	*140	69	95	36	20
18	27	148	183	74	9,790	1,390	1,100	131	61	82	34	19
19	28	1,260	204	113	5,060	1,070	857	117	68	72	41	19
20	29	491	177	136	2,360	857	692	114	1,050	68	141	20
21	30	275	165	119	1,580	724	580	109	1,240	63	101	20
22	27	196	157	110	1,220	636	500	101	310	63	63	20
23	28	325	152	125	1,010	552	449	95	191	61	49	34
24	27	356	150	159	1,140	494	389	119	147	52	44	34
25	26	270	141	187	1,110	443	348	106	738	49	38	28
26	27	238	133	209	969	404	322	96	721	48	35	23
27	28	202	120	224	906	380	298	96	359	46	34	21
28	36	169	114	248	808	350	275	93	228	41	47	21
29	64	138	110	1,750	658	332	260	89	170	37	44	21
30	52	122	110	*9,820	------	300	298	84	142	38	38	21
31	40	---	106	*4,070	------	280	------	84	------	34	57	-----
Total	947	7,143	11,370	18,852	76,797	26,816	21,660	5,043	6,603	3,750	1,537	1,008
Mean	30.5	238	367	608	2,648	865	722	163	220	121	49.6	33.6
Cfsm	0.083	0.650	1.00	1.66	7.23	2.36	1.97	0.445	0.601	0.331	0.136	0.092
In.	0.10	0.73	1.16	1.92	7.80	2.72	2.20	0.51	0.67	0.38	0.16	0.10

Calendar year 1955: Max 32,600 Min 16 Mean 661 Cfsm 1.81 In. 24.55
Water year 1955-56: Max 9,820 Min 19 Mean 496 Cfsm 1.36 In. 18.45

Peak discharge (base, 6,000 cfs).--Jan. 30 (1 p.m.) 11,800 cfs (16.95 ft); Feb. 4 (10 p.m.) 11,000 cfs (16.75 ft); Feb. 18 (3 p.m.) 12,200 cfs (17.05 ft).
* Discharge measurement made on this day.

Elk River near Prospect, Tenn.

Location.--Lat 35°01'39", long 86°56'52", on right bank 50 ft upstream from highway bridge, 1.1 miles downstream from Richland Creek, 3.2 miles east of Prospect, Giles County, 5.4 miles (revised) upstream from Ford Creek, and 7.9 miles (revised) upstream from Tennessee-Alabama State line.

Drainage area.--1,784 sq mi.

Records available.--July 1904 to February 1908, January 1919 to September 1956. Published as "near Elkmont, Ala." 1904-8, 1919-34.

Gage.--Water-stage recorder. Datum of gage is 563.29 ft above mean sea level, datum of 1929. July 1904 to February 1908 and January 1919 to March 1934, chain gage at site 11¼ miles downstream ft datum 13.52 ft lower.

Average discharge.--40 years (1904-7, 1919-56), 2,997 cfs (unadjusted).

Extremes.--Maximum discharge during year, 36,600 cfs Feb. 5 (gage height, 30.05 ft); minimum, 152 cfs Oct. 27 (gage height, 0.75 ft).

1904-8, 1919-56: Maximum discharge, 104,000 cfs Mar. 22, 1955 (gage height, 38.96 ft), from rating curve extended above 60,000 cfs on basis of contracted-opening determination of peak flow; minimum, 85 cfs Sept. 18-20, 1925, Sept. 11, 1931.

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)
523	1920	Mar. 13, 1920	49,500	e26.5
523	1921	Apr. 17, 1921	41,500	e25.0
543	1922	Mar. 12, 1922	41,500	e25.0
563	1923	Feb. 14, 1923	30,000	22.0
583	1924	Jan. 4, 1924	35,000	e23.5
643	1927	Dec. 28, 1926	61,100	28.2
683	1929	Mar. 24, 1929	81,500	30.53
713	1931	Mar. 29, 1931	15,700	13.4
728	1932	Jan. 31, 1932	26,300	20.6

e Estimated.

Remarks.--Records excellent. Prior to August 1949, diurnal fluctuation at low flow caused by powerplants upstream. Flow regulated by Woods Reservoir since 1952 (see p. 230).

Revisions (water years).--WSP 523: 1904-8, 1919-20. WSP 823: Drainage area. Revised figures of discharge, in cubic feet per second, for the water years 1920-22, 1924, 1927, 1929, superseding those published in WSP 523, 543, 583, 643, and 683, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1920		1921-Con.		1924-Con.		1927-Con.	
Feb. 23	31,500	Apr. 18	30,000	Jan. 4	35,000	Apr. 14	37,800
24	41,500			5	31,500		
25	25,800	1922				1929	
Mar. 12	27,300	Mar. 1	24,200	1926		Mar. 15	35,800
13	49,500	2	35,000	Dec. 25	42,000	16	34,200
14	38,600	3	39,000	26	47,700	23	51,900
15	28,800	4	37,000	27	51,900	24	75,600
Apr. 2	30,000	5	27,800	28	56,000	25	70,200
3	43,500	10	27,000	29	47,700		
4	39,000	11	37,000	30	37,800		
5	27,000	12	41,500	31	28,800		
		13	27,300				
1921				1927			
Apr. 17	41,500	1924		Apr. 13	44,000		
		Jan. 3	27,300				

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
February 1920	41,500	1,850	7,210	3.91	4.22
March	49,500	3,180	9,620	5.22	6.02
April	43,500	3,100	9,890	5.37	5.99
Water year 1919-20	49,500	275	5,430	2.95	40.11
Calendar year 1920	49,500	465	4,710	2.56	34.82
April 1921	41,500	1,490	6,430	3.49	3.89
Water year 1920-21	41,500	360	2,570	1.39	18.94
Calendar year 1921	41,500	360	2,770	1.50	20.38
March 1922	41,500	3,230	15,400	8.36	9.63
Water year 1921-22	41,500	330	4,140	2.25	30.52
Calendar year 1922	41,500	200	4,050	2.20	29.86
January 1924	35,000	2,410	9,180	4.98	5.74
Water year 1923-24	35,000	220	3,230	1.75	23.87
Calendar year 1924	35,000	220	2,870	1.56	21.19
December 1926	56,000	1,660	16,300	8.84	10.20
Calendar year 1926	56,000	245	3,200	1.74	23.53
April 1927	44,000	2,010	9,080	4.93	5.49
Water year 1926-27	56,000	185	4,500	2.44	33.13
Calendar year 1927	44,000	185	3,280	1.78	24.10
March 1929	75,600	4,420	16,900	9.17	10.59
Water year 1928-29	75,600	270	4,280	2.32	31.52
Calendar year 1929	75,600	270	4,830	2.62	35.58

Elk River near Prospect, Tenn.--Continued

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 5				Feb. 6 to Sept. 30	
0.70	140	10.0	7,280	0.80	210
1.0	220	18.0	15,600	1.8	545
1.8	540	25.0	25,100	3.0	1,260
3.0	1,260	30.0	36,400		
6.0	3,640				

Note.--Same as preceding table above 3.0 ft.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	185	238	728	628	11,000	*3,200	1,570	1,520	704	496	342	282
2	196	205	812	734	10,400	3,580	1,500	1,430	1,250	2,710	458	240
3	205	196	1,950	680	21,500	4,100	1,590	1,870	836	1,470	714	213
4	193	188	21,400	600	28,300	5,510	12,800	2,020	656	1,490	532	210
5	*180	185	21,600	*595	35,700	4,750	10,300	1,670	600	2,090	369	*225
6	172	182	16,500	578	32,700	4,410	9,680	1,370	*545	1,720	324	382
7	208	185	6,390	540	25,800	3,680	10,100	1,670	500	1,530	297	1,200
8	226	188	*4,460	525	17,500	3,630	7,200	2,070	456	1,180	273	830
9	344	*188	3,050	500	9,240	3,410	5,110	2,160	428	1,600	*261	734
10	476	188	2,040	495	7,210	3,400	4,220	*1,690	414	*3,770	252	634
11	380	190	1,730	490	6,370	3,070	3,310	1,460	400	1,940	243	425
12	247	202	1,570	486	5,950	2,820	*2,760	1,290	397	1,980	234	330
13	214	223	1,360	476	5,010	2,640	2,330	1,100	418	1,650	219	285
14	193	948	1,230	468	4,640	5,030	2,050	1,030	484	1,120	216	273
15	182	3,720	1,080	463	4,790	6,990	4,120	1,020	442	1,630	210	264
16	178	1,400	950	458	6,170	9,450	11,000	1,090	480	1,110	285	255
17	175	1,310	950	454	11,500	10,600	10,300	980	453	980	228	255
18	175	962	1,130	445	22,600	9,580	7,300	884	425	704	210	237
19	175	1,550	1,360	468	27,500	7,280	4,150	818	390	674	272	520
20	175	1,940	1,230	556	25,700	5,010	3,120	752	1,560	668	373	362
21	178	1,090	1,140	584	19,800	4,100	2,760	722	4,720	896	1,080	264
22	175	808	1,130	556	11,200	3,350	2,510	1,050	2,250	758	442	243
23	170	2,580	1,070	584	6,070	2,880	2,340	764	944	575	315	234
24	182	3,570	944	1,010	5,410	2,560	2,730	680	782	527	264	373
25	158	2,650	1,000	1,420	5,440	2,610	2,970	704	802	488	237	270
26	158	2,010	938	1,580	5,110	2,160	2,680	1,200	2,680	425	222	267
27	155	1,620	836	1,390	4,620	1,950	1,790	1,320	1,380	381	213	252
28	160	1,250	782	1,350	4,100	1,890	1,540	680	908	369	285	240
29	188	938	734	2,410	3,510	1,810	1,440	585	668	360	291	231
30	223	830	682	15,900	-------	1,750	1,490	585	560	363	252	228
31	260	-------	628	20,000	-------	1,670	-------	570	-------	366	225	-------
Total	6,466	31,712	101,364	57,423	384,840	128,870	136,760	36,754	27,532	36,020	10,138	10,758
Mean	209	1,057	3,270	1,852	13,270	4,157	4,559	1,186	918	1,162	327	359

		Observed			Adjusted†			
Calendar year 1955:	Max	91,400	Min 150	Mean 3,311	Mean	3,291	Cfsm 1.84	In. 25.04
Water year 1955-56:	Max	35,700	Min 155	Mean 2,647	Mean	2,666	Cfsm 1.49	In. 20.34

Peak discharge (base, 17,000 cfs).--Dec. 4 (4 p.m.) 23,400 cfs (23.80 ft); Jan. 31 (11:30 a.m.) 21,000 cfs (22.07 ft); Feb. 5 (9 p.m.) 36,600 cfs (30.05 ft); Feb. 19 (6:30 p.m.) 28,600 cfs (27.21 ft).

* Discharge measurement made on this day.

† Adjusted for change in contents in Woods Reservoir.

Note.--Discharge Dec. 9 to Jan. 5, Jan. 9-30, computed from graph based on bihourly radio-gage readings furnished by Tennessee Valley Authority.

Big Nance Creek at Courtland, Ala.

Location.--Lat 34°40'12", long 87°19'02", in SW¼ sec. 30, T. 4 S., R. 7 W., near right bank on downstream side of pier of bridge on State Highway 20, at Courtland, 12¾ miles upstream from mouth.

Drainage area.--166 sq mi.

Records available.--July 1935 to September 1940, March 1945 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 537.60 ft above mean sea level, datum of 1929. July 25, 1935, to Sept. 30, 1940, staff gage at same site and datum.

Average discharge.--16 years, 266 cfs.

Extremes.--Maximum discharge during year, 4,080 cfs Apr. 7 (gage height, 16.5 ft); minimum daily, 0.4 cfs Oct. 3-6, 12-17, 20-22.
1935-40; 1945-56: Maximum discharge, 12,300 cfs Jan. 7, 1950 (gage height, 22.60 ft); minimum daily, 0.4 cfs Sept. 15-17, 1954, Oct. 3-6, 12-17, 20-22, 1955; minimum gage height observed, 1.18 ft Oct. 25, 1954.

Remarks.--Records good except those for periods of shifting-control, which are fair.

Revisions (water years).--WSP 1033: 1939, 1940(M). WSP 1053: 1939(M).

Rating tables, water year 1955-56, except for periods when shifting-control method is used (gage height, in feet, and discharge, in cubic feet per second)
(Rate of change in stage used as a factor Feb. 4, 6, Apr. 6, 8, 15-17)

Oct. 1 to Apr. 6				Apr. 7 to Sept. 30			
1.25	0.4	3.0	187	1.28	1.4	3.0	188
1.3	.7	6.0	750	1.3	2.0	6.0	750
1.4	4.5	10.0	1,760	1.4	6.4	10.0	1,760
1.5	11	16.0	3,860	1.5	14	16.0	3,860
2.0	55			2.0	65		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.7	0.7	2.0	71	149	65	294	29	36	23	2.8
2	.5	.7	.9	2.0	152	224	59	210	30	31	16	2.8
3	*.4	1.1	2.0	2.0	1,370	400	65	530	26	*51	91	2.8
4	.4	.9	69	2.0	3,440	254	1,130	630	*24	61	64	2.4
5	.4	.9	*123	2.0	3,780	*181	1,150	370	22	38	33	*15
6	.4	.9	31	2.0	2,030	152	1,790	210	19	37	17	35
7	.6	*.9	13	2.5	743	138	3,730	*187	19	64	*11	19
8	.6	.7	6.2	2.5	380	145	1,750	286	17	34	7.6	11
9	.6	.6	3.9	2.0	340	184	470	178	16	24	6.4	4.8
10	.5	.6	2.5	*2.0	390	123	*330	128	15	23	5.3	2.8
11	.5	.6	1.6	2.0	360	103	851	105	14	22	4.8	2.0
12	.4	.6	1.1	2.0	360	94	894	92	14	18	4.4	1.4
13	.4	.9	.7	2.0	232	100	420	83	14	14	4.0	1.4
14	.4	1.1	.9	2.0	183	403	286	76	19	12	3.2	1.4
15	.4	1.3	1.1	2.5	165	894	1,020	68	19	17	3.6	1.4
16	.4	1.3	1.1	2.5	210	1,650	3,250	63	17	29	3.2	1.7
17	.4	1.3	.7	2.5	500	1,480	2,570	57	22	26	3.2	2.0
18	.5	1.3	1.6	2.9	1,000	565	704	55	19	22	3.2	2.8
19	.5	2.5	1.6	6.2	1,150	330	370	50	16	18	3.2	3.2
20	.4	2.9	2.0	6.2	750	247	277	47	18	278	9.8	3.2
21	.4	2.5	1.6	8.3	894	210	232	45	377	710	38	3.2
22	.4	2.0	1.6	9.8	420	176	195	41	790	144	21	3.6
23	.5	6.9	2.0	9.8	270	155	174	40	262	48	8.3	8.8
24	.5	11	1.6	9.8	240	138	155	39	74	29	5.3	107
25	.5	17	2.0	12	286	120	139	37	42	22	4.0	37
26	.5	6.9	2.0	13	440	105	128	34	45	18	3.2	9.8
27	.5	2.0	1.6	12	294	99	117	32	287	15	3.2	4.4
28	.9	.7	1.3	14	254	91	109	31	294	11	2.8	2.8
29	1.1	6	1.3	18	190	83	108	31	80	195	2.8	1.7
30	.7	.5	2.5	39	------	82	210	29	46	164	2.8	1.4
31	.7	-	2.0	*68	------	74	------	28	------	45	2.8	-
Total	16.0	71.9	284.1	265.5	20,894	9,149	22,748	4,106	2,686	2,256	411.1	298.6
Mean	0.52	2.40	9.16	8.56	720	295	758	132	89.5	72.8	13.3	9.95
Cfsm	0.0031	0.014	0.055	0.052	4.34	1.78	4.57	0.795	0.539	0.439	0.080	0.060
In.	0.004	0.02	0.06	0.06	4.68	2.05	5.10	0.92	0.60	0.51	0.09	0.07

Calendar year 1955: Max 6,610 Min 0.4 Mean 179 Cfsm 1.08 In. 14.59
Water year 1955-56: Max 3,780 Min 0.4 Mean 173 Cfsm 1.04 In. 14.16

Peak discharge (base, 3,800 cfs).--Feb. 5 (7 a.m.) 4,000 cfs (16.3 ft); Apr. 7 (1:30 p.m.) 4,080 cfs (16.5 ft).
* Discharge measurement made on this day.
Note.--Shifting-control method used Oct. 1 to Dec. 19, Dec. 31 to Feb. 2, June 28 to July 20, Sept. 26-30.

Shoal Creek at Iron City, Tenn.

Location.--Lat 35°01'20", long 87°34'44", on right bank 600 ft upstream from Louisville & Nashville Railroad bridge, 700 ft downstream from highway bridge, 0.2 mile downstream from Holly Creek, a quarter of a mile east of Iron City, Lawrence County, and at mile 21.7.

Drainage area.--348 sq mi.

Records available.--July 1925 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 534.91 ft above mean sea level, datum of 1929. Prior to Feb. 25, 1931, staff gage at railroad bridge 600 ft downstream at datum 1.54 ft lower. Feb. 25, 1931, to Sept. 30, 1933, staff gage at site 75 ft downstream at present datum.

Average discharge.--31 years, 632 cfs.

Extremes.--Maximum discharge during year, 17,400 cfs Feb. 18 (gage height, 15.40 ft); minimum, 76 cfs Sept. 19; minimum daily, 77 cfs Sept. 18, 19.

1925-56: Maximum discharge, 132,000 cfs Mar. 21, 1955 (gage height, 27.22 ft), from rating curve extended above 32,000 cfs on basis of contracted-opening determination at gage height 22.9 ft and a slope-area determination at gage height 27.22 ft; minimum, 38 cfs Aug. 31, 1943 (gage height, -0.02 ft).

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. Previously published maximums for these years were observed maximums.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
623	1926	Nov. 12, 1925	18,700	14.7
663	1928	Mar. 9, 1928	20,900	15.4
683	1929	Mar. 23, 1929	29,200	18.0
698	1930	Mar. 7, 1930	11,800	12.4
728	1932	July 7, 1932	18,100	14.5
743	1933	Oct. 17, 1932	25,400	16.8

Remarks.--Records good. Diurnal fluctuation at low flow caused by powerplant at Lawrenceburg.

Revisions (water years).--WSP 823: Drainage area. WSP 1113: 1927(M). Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1927-29, and 1932, superseding those published in WSP 643, 663, 683, and 728, are given herewith:

1926
Dec. 24..... 7,530
25..... 20,900
26..... 11,800

1927
Mar. 13..... 42,600
14..... 8,260

1928
Mar. 9..... 15,300

1929
Mar. 14..... 8,580
23..... 22,200
May 9..... 15,000

1932
Jan. 30..... 12,900
July 7..... 14,700

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1926	20,900	160	2,970	8.53	9.83
Calendar year 1926	20,900	92	588	1.69	22.92
March 1927	42,600	570	3,150	9.05	10.43
Water year 1926-27	42,600	75	953	2.74	37.17
Calendar year 1927	42,600	75	730	2.10	28.47
March 1928	15,300	300	1,290	3.71	4.28
Water year 1927-28	15,300	87	676	1.94	26.45
Calendar year 1928	15,300	114	656	1.89	25.65
March 1929	22,200	760	2,720	7.82	9.02
May	15,000	440	1,960	5.63	6.48
Water year 1928-29	22,200	110	787	2.26	30.69
Calendar year 1929	22,200	110	884	2.54	34.47
January 1932	12,900	525	2,050	5.89	6.79
July	14,700	216	1,130	3.25	3.75
Water year 1931-32	14,700	62	851	2.45	33.29
Calendar year 1932	15,500	115	972	2.79	38.03

Shoal Creek at Iron City, Tenn.--Continued

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 14				Mar. 15 to Sept. 30			
0.2	90	7.0	3,610	0.1	67	2.0	550
1.0	243	10.0	6,700	.5	125	3.0	1,090
1.5	403	14.0	13,800	1.0	228	5.0	2,290
3.0	1,150						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	151	127	173	156	1,640	486	280	462	190	g201	g133	g106
2	125	123	219	156	2,760	670	270	416	182	g173	g257	g106
3	112	125	241	156	7,920	705	282	450	173	g163	g298	g98
4	109	132	1,730	152	10,300	705	582	518	171	g161	g184	g94
5	*109	127	1,120	151	5,720	602	450	490	*165	g167	g148	g96
6	109	127	594	149	2,530	*571	1,150	423	165	190	g140	g106
7	107	125	*428	149	1,850	544	1,850	550	163	211	g138	g129
8	111	*123	338	145	1,380	690	1,040	494	159	169	*115	g111
9	111	123	281	*143	1,150	616	751	*398	157	g165	111	g96
10	105	132	243	143	958	558	636	364	154	g184	108	89
11	104	151	223	143	1,000	526	*715	322	148	*169	106	88
12	102	139	209	143	870	490	675	295	146	g150	125	86
13	105	159	197	143	750	540	613	282	148	g148	111	*85
14	109	338	189	141	665	2,070	559	270	169	g159	105	85
15	107	1,020	183	141	795	1,830	890	295	220	g748	162	84
16	107	359	177	141	1,200	1,670	1,960	346	207	g262	182	83
17	107	371	172	139	1,920	1,440	1,320	275	g182	g199	120	79
18	109	223	211	138	12,300	1,120	982	260	g161	g169	111	77
19	112	1,220	243	196	3,920	880	756	243	g283	g154	g111	77
20	114	658	213	217	1,990	710	622	236	g725	g161	g134	80
21	112	314	201	183	1,380	604	530	232	g784	g163	165	83
22	112	236	193	172	1,080	534	474	222	g768	g157	g138	81
23	111	275	189	181	897	478	430	220	g332	g222	g133	81
24	107	359	187	223	865	438	395	215	g262	g165	g123	86
25	105	270	181	225	845	395	378	213	g238	g192	g116	94
26	105	257	177	223	760	370	353	207	g546	g171	g110	86
27	112	225	170	221	680	353	342	209	g559	g144	g108	84
28	128	203	166	234	616	339	322	209	g370	g134	g110	83
29	217	187	162	994	540	316	298	201	g249	g127	g122	83
30	181	177	160	*10,200	------	301	370	194	g220	g122	g111	81
31	136	----	160	2,900	------	288	------	184	------	g120	g105	----
Total	3,651	8,405	9,330	18,798	69,281	21,839	20,275	9,695	8,396	5,820	4,240	2,697
Mean	118	280	301	606	2,389	704	676	313	280	188	137	89.9
Cfsm	0.339	0.805	0.865	1.74	6.86	2.02	1.94	0.899	0.805	0.540	0.394	0.258
In.	0.39	0.90	1.00	2.01	7.40	2.33	2.17	1.04	0.90	0.62	0.45	0.29

Calendar year 1955: Max 40,200 Min 76 Mean 690 Cfsm 1.98 In. 26.92
Water year 1955-56: Max 12,300 Min 77 Mean 498 Cfsm 1.43 In. 19.50

Peak discharge (base, 6,000 cfs).--Jan. 30 (11:30 a.m.) 13,100 cfs (13.69 ft); Feb. 4 (8 p.m.) 14,400 cfs (14.23 ft); Feb. 18 (2 p.m.) 17,400 cfs (15.40 ft).

* Discharge measurement made on this day.

g Computed from graph based on bihourly radio-gage readings furnished by Tennessee Valley Authority.

Tennessee River at Florence, Ala.

Location.--Lat 34°47'12", long 87°40'08", in SW¼ sec. 14, T. 3 S., R. 11 W., on left bank at lock and dam 1 at lower end of Patten Island, 700 ft upstream from Southern Railway bridge, 1,000 ft upstream from O'Neal Bridge on U. S. Highway 72, 1 mile south of Florence, 1.7 miles upstream from Cypress Creek, 2.7 miles downstream from Wilson Dam, and at mile 256.7.

Drainage area.--30,810 sq mi, approximately.

Records available.--November 1871 to September 1894 (gage heights only), October 1894 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 401.12 ft above mean sea level, datum of 1929. Prior to Apr. 1, 1926, several U. S. Weather Bureau staff gages at or near Southern Railway bridge 700 ft downstream at same datum. Since Oct. 1, 1938, auxiliary water-stage recorder 15¼ miles downstream.

Average discharge.--62 years (1894-56), 50,560 cfs.

Extremes.--Maximum discharge during year, 288,000 cfs Feb. 5 (gage height, 22.32 ft); minimum daily, 9,600 cfs Oct. 9; minimum gage height, 6.43 ft Dec. 18.
1871-1956: Maximum discharge observed, 444,000 cfs Mar. 19, 1897 (gage height, 32.5 ft), from rating curve extended above 320,000 cfs; minimum daily discharge, 250 cfs Sept. 13, 1953 (computed on basis of Wilson Dam records); minimum gage height, -3.0 ft Oct. 8, 1925, caused by filling of Wilson Lake.
Revisions.--Figures of maximum discharge for the water years 1899 and 1916 have been revised to 325,000 cfs Mar. 20, 1899 (gage height, 25.1 ft) and 252,000 cfs July 12, 1916 (gage height, 20.5 ft), superseding those published in WSP 353 and 433, respectively.

Remarks.--Records good. Discharge below 25,000 cfs computed on basis of records for Wilson Dam. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station (see p. 226). Flow now almost completely regulated.

Cooperation.--Auxiliary water-stage-recorder graph furnished by the Tennessee Valley Authority.

Revisions (water years).--WSP 473: 1897(M). Revised figures of discharge, in cubic feet per second, for the water years 1897, 1899, and 1916, superseding those published in WSP 353 and 433, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1897		1897-Con.		1899-Con.		1899-Con.	
Mar. 1	194,000	Mar. 20	413,000	Mar. 5	135,000	Mar. 22	316,000
2	198,000	21	381,000	6	131,000	23	309,000
3	174,000	22	359,000	7	140,000	24	303,000
7	143,000	23	328,000	8	154,000	25	300,000
8	157,000	24	311,000	9	164,000	26	295,000
9	164,000	25	292,000	10	172,000	27	288,000
10	180,000	26	272,000	11	173,000	28	279,000
11	198,000	27	253,000	12	155,000	29	247,000
12	240,000	28	228,000	14	126,000	30	198,000
13	260,000	29	159,000	15	203,000	31	163,000
14	280,000			16	260,000		
15	288,000	1899		17	272,000	1916	
16	311,000	Mar. 1	168,000	18	285,000	July 12	252,000
17	325,000	2	161,000	19	317,000		
18	344,000	3	160,000	20	325,000		
19	429,000	4	151,000	21	320,000		

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
March 1897	429,000	91,800	239,000	7.76	8.94
Water year 1896-97	429,000	9,500	58,900	1.91	25.99
Calendar year 1897	429,000	8,550	57,200	1.86	25.22
March 1899	325,000	126,000	219,000	7.11	8.21
Water year 1898-99	325,000	11,000	64,600	2.10	28.45
Calendar year 1899	325,000	10,500	60,800	1.97	26.77
July 1916	252,000	23,100	126,000	4.09	4.71
Water year 1915-16	252,000	12,300	65,100	2.11	28.73
Calendar year 1916	252,000	12,300	55,400	1.80	24.47

Tennessee River at Florence, Ala.--Continued

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,800	33,300	36,100	17,500	97,100	62,200	25,700	42,400	27,200	19,300	*38,300	17,500
2	17,400	38,600	30,800	17,800	109,000	56,500	33,000	36,200	28,000	28,800	36,200	17,500
3	25,600	41,300	31,500	23,500	187,000	67,900	28,800	39,500	20,100	27,900	31,400	14,700
4	*19,300	36,200	39,600	23,300	248,000	54,500	38,800	43,000	28,600	20,400	36,000	31,900
5	21,200	29,400	47,800	22,500	263,000	64,100	47,800	37,700	26,300	31,000	21,200	34,700
6	26,500	12,200	*56,600	21,800	243,000	*60,800	88,800	31,800	25,100	39,200	32,800	*36,300
7	21,300	30,100	58,300	26,000	238,000	74,200	103,000	47,800	22,700	28,400	28,700	44,400
8	13,600	31,700	56,700	23,100	217,000	73,900	76,700	54,000	24,600	16,200	30,700	30,000
9	9,600	39,600	54,200	32,400	171,000	69,900	59,400	50,500	25,200	19,500	31,400	24,200
10	28,400	36,900	52,600	34,300	107,000	65,900	50,400	44,000	17,400	25,000	28,800	32,400
11	29,100	28,200	45,000	30,700	77,600	55,800	61,500	43,900	25,800	*34,300	20,300	38,200
12	32,400	18,600	44,300	23,700	71,000	68,900	55,300	36,000	25,400	37,300	18,500	33,400
13	31,600	11,400	• 45,300	24,800	74,100	55,400	40,700	25,100	25,500	42,600	35,100	31,700
14	39,300	31,300	41,600	14,900	66,500	72,400	32,300	49,200	36,200	25,600	32,100	28,900
15	33,000	31,400	41,800	11,800	66,900	106,000	52,100	46,200	37,400	21,700	34,700	24,400
16	18,600	42,100	32,700	20,500	71,800	134,000	102,000	38,600	25,100	39,900	32,800	21,500
17	34,300	44,600	33,300	17,000	82,100	152,000	120,000	39,400	20,600	40,000	28,500	30,900
18	33,600	35,000	26,300	11,200	158,000	140,000	101,000	25,800	34,000	40,300	23,600	33,900
19	29,200	35,200	37,900	16,600	167,000	122,000	91,700	24,400	33,100	42,300	21,400	39,200
20	28,700	34,400	40,500	17,600	153,000	94,200	74,500	16,800	29,600	33,400	31,000	35,000
21	23,500	32,200	40,800	10,300	152,000	76,400	69,700	33,600	33,300	24,600	32,500	27,600
22	14,800	28,400	37,600	15,500	151,000	75,600	47,500	38,900	42,700	16,600	35,400	22,800
23	16,000	24,200	27,900	21,100	131,000	65,800	47,000	28,500	35,100	33,000	34,500	20,000
24	35,700	22,200	16,400	25,700	109,000	59,100	41,800	27,100	14,500	29,400	37,000	33,100
25	28,600	31,700	13,100	21,600	89,700	50,500	35,400	26,300	24,900	32,800	24,000	33,200
26	25,700	30,200	11,900	25,900	76,900	50,800	37,700	25,400	25,200	32,100	20,200	38,400
27	31,900	21,400	24,500	21,500	77,600	52,100	39,100	12,000	33,100	35,600	21,800	37,000
28	36,300	46,100	31,300	11,300	75,400	47,300	34,600	25,900	27,700	29,200	29,000	34,400
29	17,800	38,300	32,500	12,200	73,400	53,500	26,000	25,400	26,500	22,200	30,800	28,900
30	31,200	37,400	31,600	46,400	-------	48,300	41,800	25,300	21,000	38,500	33,500	17,000
31	29,500	-------	20,000	66,300	-------	40,200	-------	32,700	-------	41,400	29,200	-------
Total	803,500	953,600	‡1,140.5	708,800	‡3,802.1	‡2,270.2	‡1,704.1	‡1,074.4	821,900	946,500	921,400	893,100
Mean	25,920	31,790	36,790	22,860	131,100	73,230	56,800	34,630	27,400	30,530	29,720	29,770
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 280,000 Min 9,600 Mean 45,060 Cfsm 1.46 In. 19.85
Water year 1955-56: Max 263,000 Min 9,600 Mean 43,820 Cfsm 1.42 In. 19.36

* Discharge measurement made on this day.
‡ Expressed in thousands.
Note.--No gage-height record at auxiliary gage Jan. 6 to Feb. 2, Feb. 18-21; discharge estimated on basis of records of release for Wilson Dam.

Tuscumbia Spring at Tuscumbia, Ala.

Location.--Lat 34°43'45", long 87°42'15", in NW¼ sec. 9, T. 4 S., R. 11 W., at south end of Main Street in Tuscumbia, about an eighth of a mile upstream from mouth.

Records available.--November 1928 to April 1930, January to September 1956.

Gage.--Water-stage recorder. Datum of gage is 409.65 ft above mean sea level, datum of 1929. Prior to April 1930 at approximately the same location at different datum.

Extremes.--Maximum discharge during period January to September 1956 not determined; minimum daily, 15 cfs Jan. 17, 18, 20-22, 24-27.
1928-30, 1956: Maximum daily discharge, 160 cfs Mar. 9, 1929; minimum daily, that of Jan. 17, 18, 20-22, 24-27, 1956.

Remarks.--Records good except those for periods of backwater or no gage-height record, which are poor. An average of 1 cfs (included in records) is diverted from pool for water supply for city of Tuscumbia.

Discharge, in cubic feet per second, January to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				21	*26	87	88	112	86	64	56	42
2				21	32	87	83	108	85	64	54	41
3				21	85	85	101	107	85	*82	54	41
4				*20	a93	83	c121	107	83	61	53	40
5				19	a97	83	120	106	83	61	52	*39
6				19	a97	82	c120	106	83	60	51	39
7				19	a89	81	c120	105	*81	59	*49	40
8				19	85	a80	120	105	81	59	49	39
9				18	83	a79	120	104	80	58	48	39
10				18	82	a78	120	103	80	57	47	39
11				17	81	77	124	102	79	57	45	38
12				17	81	76	120	102	78	56	44	37
13				17	81	76	120	101	79	56	43	36
14				17	83	79	120	100	77	56	41	35
15				17	80	83	132	99	76	54	39	35
16				16	81	87	c131	*99	75	53	39	35
17				15	85	86	120	98	73	53	39	34
18				15	93	89	116	97	73	51	38	33
19				16	92	90	116	96	71	55	39	33
20				15	94	*87	*112	95	71	61	41	32
21				15	92	89	112	94	71	63	43	32
22				15	92	93	112	94	70	65	44	31
23				17	92	92	112	93	69	64	45	30
24				15	91	92	112	92	69	64	45	30
25				15	a90	92	112	92	68	63	45	30
26				15	a89	93	112	91	67	61	45	29
27				15	a88	93	112	90	66	61	44	29
28			†16	17	a87	92	108	89	66	61	44	28
29				18	87	92	108	88	66	59	43	28
30				22	------	92	112	87	65	58	42	27
31				23	------	91	------	87	------	57	42	------
Total				544	2,428	2,666	3,436	3,049	2,256	1,833	1,403	1,041
Mean				17.5	83.7	86.0	115	98.4	75.2	59.1	45.3	34.7
Cfsm				-	-	-	-	-	-	-	-	-
In.				-	-	-	-	-	-	-	-	-

Calendar year	: Max	Min	Mean	Cfsm	In.
Water year	: Max	Min	Mean	Cfsm	In.

* Discharge measurement made on this day.
† Result of discharge measurement.
a No gage-height record; discharge estimated on basis of weather records.
c Backwater from Spring Creek.

Bear Creek at Bishop, Ala.

Location.--Lat 34°39'21", long 88°07'21", in SE¼ sec. 5, T. 5 S., R. 15 W., on left bank 20 ft upstream from highway bridge, half a mile downstream from Cedar Creek (formerly called Little Bear Creek), three-quarters of a mile southwest of Bishop, and at mile 27.3.

Drainage area.--667 sq mi.

Records available.--August 1926 to March 1932, June 1933 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 419.91 ft above mean sea level, datum of 1929. Prior to June 23, 1928, and Feb. 10, 1929, to Mar. 31, 1932, staff gage at site 35 ft downstream at datum 5.00 ft (corrected) lower. June 7, 1933, to May 28, 1934, chain gage at bridge 20 ft downstream at same datum as staff gage.

Average discharge.--26 years (1926-27, 1929-31, 1933-56), 1,054 cfs.

Extremes.--Maximum discharge during year, 11,100 cfs Feb. 5 (gage height, 15.81 ft); minimum, 24 cfs Sept. 23, 24.
1926-56: Maximum discharge, 37,000 cfs Mar. 22, 1955; maximum gage height, 22.0 ft (present datum) Dec. 26, 1926, from floodmarks; minimum discharge, 9.3 cfs Sept. 15-17, 1954; minimum gage height, -0.15 ft Sept. 1, 1943.

Remarks.--Records good.

Revisions (water years).--WSP 698: 1929. WSP 823: Drainage area. WSP 853: 1927, 1928(M), 1929, 1930(M), 1932(M).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 5				Feb. 6 to Sept. 30			
1.2	31	8.0	2,600	0.8	18	5.0	1,210
2.0	165	11.0	4,180	1.0	36	10.0	3,650
2.8	340	13.0	6,100	1.5	103	13.0	6,200
4.0	815	15.4	10,100	2.0	195	15.4	10,100
				3.0	460		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	97	115	127	827	960	546	6,490	220	228	*53	52
2	38	93	142	126	1,320	1,150	522	3,160	191	220	60	57
3	32	80	203	126	4,520	1,290	1,010	2,520	185	373	84	54
4	*31	68	2,050	122	*8,630	1,190	7,850	2,190	181	*497	101	49
5	31	66	1,210	120	10,000	*1,020	3,880	1,810	*173	275	101	*47
6	34	59	*623	120	10,100	920	5,460	1,570	155	340	100	49
7	34	58	415	119	7,680	868	9,620	1,300	144	280	113	87
8	34	*64	281	115	4,450	856	7,110	*1,400	137	232	78	90
9	37	66	235	114	2,740	805	6,090	2,100	132	240	62	78
10	35	73	207	*114	1,980	746	3,680	1,740	125	181	49	75
11	47	85	185	112	1,880	696	*5,190	1,090	127	165	188	62
12	47	93	171	109	1,640	665	4,800	860	120	150	112	57
13	42	86	163	107	1,400	863	4,010	724	117	132	93	49
14	39	90	154	109	1,180	2,320	3,390	648	163	122	87	43
15	38	105	145	110	1,060	2,370	3,310	570	167	115	167	37
16	37	90	142	112	1,380	4,420	8,980	484	175	100	179	35
17	38	86	136	112	2,400	4,420	6,240	460	197	97	120	34
18	39	85	160	110	4,540	3,900	4,500	427	189	90	87	34
19	41	92	193	152	4,310	3,160	3,100	379	185	103	74	33
20	41	107	213	171	3,560	1,980	2,050	361	173	95	242	32
21	41	110	263	165	3,300	1,540	1,650	338	167	95	475	28
22	39	107	219	165	2,800	1,290	1,390	312	405	98	270	25
23	41	124	199	179	2,260	1,120	1,210	288	379	84	295	24
24	39	165	183	209	1,750	992	1,050	265	340	97	181	41
25	38	387	177	209	1,560	888	932	245	245	93	127	139
26	38	313	169	207	1,510	802	840	238	222	78	100	112
27	39	207	158	209	1,420	738	770	232	578	68	86	68
28	51	161	152	225	1,270	693	707	220	490	68	76	51
29	107	136	140	263	1,090	658	686	215	546	59	72	42
30	76	124	138	516	-------	623	4,090	209	302	53	63	39
31	70	-------	133	*803	-------	598	-------	201	-------	47	58	-------
Total	1,335	3,477	9,074	5,557	92,557	44,541	104,663	33,046	6,930	4,875	3,952	1,623
Mean	43.1	116	293	179	3,192	1,437	3,489	1,066	231	157	127	54.1
Cfsm	0.065	0.174	0.439	0.268	4.79	2.15	5.23	1.60	0.346	0.235	0.190	0.081
In.	0.07	0.19	0.51	0.31	5.16	2.48	5.84	1.84	0.39	0.27	0.22	0.09

Calendar year 1955: Max 35,200 Min 31 Mean 1,071 Cfsm 1.61 In. 21.80
Water year 1955-56: Max 10,100 Min 24 Mean 851 Cfsm 1.28 In. 17.37

Peak discharge (base, 7,500 cfs).--Feb. 5 (9 p.m.) 11,100 cfs (15.81 ft); Apr. 4 (1 p.m.) 8,940 cfs (14.82 ft); Apr. 7 (12:30 p.m.) 10,200 cfs (15.43 ft); Apr. 16 (1 to 2 p.m.) 9,920 cfs (15.30 ft); May 1 (3 a.m.) 7,690 cfs (14.12 ft).
* Discharge measurement made on this day.

Tennessee River at Savannah, Tenn.

Location.--Lat 35°13'29", long 88°15'36", on left bank pier of bridge on U. S. Highway 64, at Savannah, Hardin County, 16.8 miles downstream from Pickwick Landing Dam and at mile 189.9.

Drainage area.--33,140 sq mi, approximately.

Records available.--September 1930 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 300.00 ft above mean sea level, datum of 1929. Prior to Apr. 7, 1945, at datum 41.61 ft higher. Since Oct. 1, 1948, auxiliary water-stage recorder on downstream end of lock wall in lower pool at Pickwick Landing Dam, 16.8 miles upstream. Apr. 5, 1937, to Jan. 31, 1939, auxiliary staff gage 4.0 miles downstream and Feb. 1, 1939, to Sept. 30, 1948, water-stage recorder 4.3 miles downstream.

Average discharge.--26 years, 51,540 cfs.

Extremes.--Maximum discharge during year, 282,000 cfs Feb. 5, maximum gage height, 83.23 ft Feb. 7; minimum daily discharge, 10,400 cfs Oct. 9; minimum gage height, 53.78 ft Nov. 16.

1930-56: Maximum discharge, 396,000 cfs Feb. 16, 1948; maximum gage height, 92.29 ft Feb. 17, 1948; minimum daily discharge, 1,100 cfs Sept. 3, 1945, caused by experimental closure of Pickwick Landing Dam; minimum gage height, 41.20 ft, present datum, Oct. 20, 1931 (corrected).

Maximum stage known, 101.2 ft Mar. 21, 1897, present datum, from floodmarks (discharge, 450,000 cfs, from rating curve extended above 320,000 cfs). Flood of Jan. 2, 1927, reached a stage of 92.7 ft, present datum (discharge, 349,000 cfs).

Minimum stage known, 38.8 ft Sept. 8, 1925, present datum.

Remarks.--Records good. Slight regulation by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station (see p. 226). Flow now almost completely regulated.

Cooperation.--Auxiliary water-stage-recorder graph furnished by Tennessee Valley Authority.

Revisions (water years).--WSP 853: 1937, drainage area.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24,300	38,800	36,000	19,400	85,800	68,600	25,500	57,400	29,100	34,400	40,300	36,400
2	18,600	37,500	32,000	17,500	111,000	59,500	29,000	52,800	34,900	32,400	33,300	26,000
3	29,600	41,100	32,000	23,800	172,000	62,000	22,900	55,300	27,000	26,100	28,400	15,200
4	21,600	31,700	32,000	31,800	249,000	57,500	36,700	52,100	31,700	21,200	41,500	31,300
5	25,800	28,400	60,000	25,300	276,000	62,900	60,400	49,300	28,000	32,500	38,200	34,100
6	32,000	17,200	58,000	18,100	269,000	63,700	101,000	31,400	29,300	38,400	34,500	28,200
7	22,400	26,300	*65,000	28,400	258,000	64,600	120,000	42,700	23,900	43,700	31,600	38,900
8	13,600	34,400	60,700	26,300	237,000	71,800	97,700	46,900	31,700	31,500	28,900	45,400
9	10,400	41,000	58,600	30,400	201,000	69,300	84,900	46,000	33,200	19,100	29,800	37,100
10	25,500	37,100	47,200	36,000	154,000	69,200	71,100	47,400	22,600	25,200	29,800	30,000
11	*28,900	31,600	34,500	34,200	115,000	64,800	*76,500	48,000	29,000	30,700	30,400	33,800
12	32,200	18,800	44,600	25,300	89,300	65,300	64,700	43,400	29,700	36,400	31,000	31,100
13	29,400	15,200	43,700	21,300	82,200	62,300	49,700	38,300	28,100	44,000	33,100	28,500
14	36,800	29,400	43,300	13,100	68,000	66,500	45,200	60,500	32,600	40,200	32,800	28,900
15	29,600	29,900	49,100	13,500	*71,000	96,600	47,600	60,200	34,200	31,400	34,000	36,600
16	21,200	35,500	44,100	18,000	75,200	129,000	99,800	33,100	42,300	35,900	30,000	37,000
17	32,600	49,400	31,600	23,400	90,400	144,000	134,000	38,400	39,300	41,600	28,000	30,600
18	34,300	39,500	23,100	18,600	139,000	141,000	129,000	43,100	*29,700	42,600	37,000	32,100
19	29,900	26,100	41,300	18,900	172,000	124,000	108,000	29,900	29,500	40,100	38,000	36,000
20	28,400	31,800	40,200	16,500	171,000	100,000	87,900	17,100	24,900	32,300	30,000	32,500
21	26,800	30,100	37,000	14,300	170,000	79,600	82,100	35,200	28,300	38,400	31,000	21,700
22	17,300	28,000	36,000	14,100	160,000	76,900	69,300	39,900	45,800	30,900	33,000	33,400
23	15,300	30,400	23,000	19,100	137,000	75,300	57,600	34,100	43,400	31,800	32,000	31,800
24	32,000	26,900	19,000	30,000	120,000	58,200	47,700	34,800	32,700	30,800	34,000	29,000
25	29,000	36,100	14,000	29,700	102,000	47,000	44,100	33,900	21,200	32,400	39,000	32,400
26	26,900	30,100	14,000	29,200	85,700	39,400	44,500	27,300	23,700	34,400	37,000	37,500
27	30,700	22,100	26,000	22,800	83,300	47,600	39,200	26,300	29,700	35,700	17,000	32,000
28	36,600	36,300	31,000	14,000	79,800	47,100	44,500	31,400	30,500	39,600	*25,000	33,900
29	22,900	38,500	29,000	18,400	75,900	48,300	33,700	32,500	31,200	36,500	30,000	28,500
30	24,100	40,000	30,600	60,100	-------	45,500	44,200	31,200	35,200	39,600	32,000	24,000
31	31,200	-------	22,000	83,000	-------	41,200	-------	31,500	-------	41,400	33,000	-------
Total	819,900	959,200	‡1,158.6	794,500	‡4,099.6	‡2,248.7	‡1,998.5	‡1,251.4	932,400	‡1,071.2	‡1,003.6	953,900
Mean	26,450	31,970	37,370	25,630	141,400	72,540	66,620	40,370	31,080	34,550	32,370	31,800
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 310,000 Min 10,400 Mean 48,710 Cfsm 1.47 In. 19.95
Water year 1955-56: Max 276,000 Min 10,400 Mean 47,240 Cfsm 1.43 In. 19.40

* Discharge measurement made on this day.
‡ Expressed in thousands.
Note.--No gage-height record at auxiliary gage Nov. 29 to Dec. 7, Dec. 21-29, Aug. 15-31; discharge estimated on basis of records of release from Pickwick Dam.

Duck River below Manchester, Tenn.

Location.--Lat 35°28'15", long 86°07'18", on right bank 50 ft downstream from Powers Bridge, 2 miles southwest of Manchester, Coffee County, 3½ miles (revised) downstream from Little Duck River, and 7 miles upstream from Crumpton Creek.
Drainage area.--107 sq mi.
Records available.--April 1934 to September 1956.
Gage.--Water-stage recorder. Datum of gage is 878.23 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.
Average discharge.--22 years, 176 cfs.
Extremes.--Maximum discharge during year, 6,760 cfs Jan. 30 (gage height, 11.96 ft); minimum, 16 cfs Sept. 30; minimum gage height, 1.20 ft Sept. 21, 22, 23.
1934-56: Maximum discharge, 30,000 cfs Feb. 13, 1948 (gage height, 18.93 ft), from rating curve extended above 12,000 cfs on basis of slope-area determination of peak flow; minimum, 8 cfs Aug. 12, 1934; minimum gage height, 0.57 ft Sept. 19, 20, 1947.
Remarks.--Records good. Occasional regulation for short periods during low flow by small reservoir above station.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1946-47, superseding those published in WSP 1053 and 1083, are given herewith:

Jan. 6, 1946..... 397
Apr. 11, 1947..... 162

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
January 1946	19,261	4,400	145	621	5.80	6.69
Water year 1945-46	79,193	4,400	15	217	2.03	27.50
Calendar year 1946	67,425	4,400	18	185	1.73	23.42
April 1947	4,379	294	76	146	1.36	1.52
Water year 1946-47	51,999.3	2,840	9.1	142	1.33	18.06
Calendar year 1947	48,327.3	2,840	9.1	132	1.23	16.79

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 16-18, 21, 22, Nov. 26 to Dec. 3, May 10, 14-20, 24, June 1, 22, 23, July 2-5, 7, 8, 11-16, 19-22)

Oct. 1 to Jan. 30				Jan. 31 to Sept. 30			
1.3	18	3.0	445	1.2	15	2.5	280
1.5	34	6.0	1,880	1.4	29	4.0	895
2.0	108	9.0	3,850	1.7	65	7.0	2,480
2.4	201	10.0	4,700	2.0	120	9.0	3,850

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	22	29	44	492	157	81	86	46	40	30	24
2	21	22	35	42	800	308	85	103	40	114	32	23
3	21	22	60	41	*3,590	388	94	264	37	68	31	20
4	21	22	1,260	39	3,040	428	2,010	312	36	45	30	20
5	21	22	751	38	1,600	260	584	157	35	107	28	19
6	21	23	241	36	1,120	208	978	110	34	184	27	32
7	32	24	157	38	724	181	800	110	33	70	26	32
8	30	23	121	35	440	248	340	118	33	57	24	24
9	24	23	103	34	344	222	222	92	32	335	24	23
10	23	26	88	33	280	157	181	73	31	244	24	23
11	22	27	78	34	424	142	184	67	31	83	24	23
12	22	26	70	35	368	132	187	61	30	61	27	*23
13	22	182	66	34	264	226	148	59	34	67	24	22
14	22	245	62	33	216	676	122	54	34	67	24	22
15	22	108	59	33	256	560	1,570	*58	35	70	23	21
16	22	*63	54	33	424	592	2,270	64	36	70	23	20
17	22	56	50	32	922	480	560	57	34	77	25	20
18	22	47	80	31	3,400	304	320	59	32	202	24	20
19	*22	145	110	*39	1,020	216	222	49	32	71	35	20
20	21	150	*86	50	632	175	181	45	33	*51	38	19
21	21	64	75	47	416	142	151	44	34	57	28	19
22	21	46	69	42	300	132	132	44	*55	50	25	19
23	20	117	66	47	230	*120	122	43	51	40	23	23
24	19	117	66	59	*380	112	*112	45	43	35	22	28
25	19	70	59	66	496	103	103	43	37	33	21	20
26	21	57	56	70	404	95	97	41	37	32	21	17
27	21	47	50	70	276	94	92	40	43	32	21	17
28	22	40	47	86	233	92	88	43	34	30	35	17
29	29	33	45	805	187	107	85	41	30	31	27	17
30	24	30	45	4,400	------	103	85	38	27	32	26	17
31	22	---	44	1,020	------	90	------	43	------	30	24	------
Total	696	1,899	4,182	7,446	23,278	7,250	12,206	2,463	1,079	2,485	816	644
Mean	22.5	63.3	135	240	803	234	407	79.5	36.0	80.2	26.3	21.5
Cfsm	0.210	0.592	1.26	2.24	7.50	2.19	3.80	0.743	0.336	0.750	0.246	0.201
In.	0.24	0.66	1.45	2.59	8.09	2.52	4.24	0.86	0.38	0.86	0.28	0.22

Calendar year 1955: Max 7,980 Min 16 Mean 198 Cfsm 1.85 In. 25.11
Water year 1955-56: Max 4,400 Min 17 Mean 176 Cfsm 1.64 In. 22.39

Peak discharge (base, 2,500 cfs).--Jan. 30 (7 a.m.) 6,760 cfs (11.96 ft); Feb. 3 (1 p.m.) 4,950 cfs (10.25 ft); Feb. 18 (12 m.) 4,470 cfs (9.73 ft); Apr. 4 (10 a.m.) 2,710 cfs (7.38 ft); Apr. 16 (1 a.m.) 4,080 cfs (9.27 ft).
* Discharge measurement made on this day.

Garrison Fork at Fairfield, Tenn.

Location.--Lat 35°33'59", long 86°17'00", near left bank on downstream side of center pier of highway bridge, 0.1 mile east of Fairfield, 0.6 mile downstream from Noah Fork, and 4.5 miles northeast of Wartrace, Bedford County.

Drainage area.--66.3 sq mi.

Records available.--November 1953 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 800.85 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 5,890 cfs Jan. 29 (gage height, 15.27 ft); minimum, 3.6 cfs Aug. 27 (gage height, 0.85 ft).
1953-56: Maximum discharge, 25,300 cfs Mar. 21, 1955 (gage height, 23.13 ft), from rating curve extended above 3,800 cfs on basis of slope-area determination of peak flow; minimum, 1.2 cfs Sept. 17-20, 1954 (gage height, 0.83 ft).

Remarks.--Records good.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 28				Jan. 29 to Sept. 30			
0.9	2.0	2.0	92	0.8	2.0	2.0	127
1.0	5.0	2.5	180	.9	4.8	3.0	350
1.2	14	3.0	310	1.0	9.0	5.0	1,020
1.5	37	6.0	1,470	1.2	20	10.0	2,830
				1.5	49		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	7.3	29	22	328	83	38	40	14	22	81	15
2	6.9	6.9	41	22	696	126	41	39	12	30	33	10
3	5.8	6.9	147	20	*1,970	120	50	46	12	19	19	7.5
4	5.0	6.9	1,380	20	1,880	110	251	41	11	21	14	6.6
5	4.6	6.9	356	19	677	107	120	35	10	202	12	7.5
6	5.0	6.9	152	18	512	100	496	32	9.5	77	9.5	76
7	113	6.9	100	17	342	93	280	33	9.5	38	8.0	38
8	41	7.3	80	16	244	96	171	31	9.0	23	7.0	18
9	15	7.3	67	15	183	80	125	26	8.0	98	5.9	12
10	11	7.7	56	14	145	77	105	24	7.5	48	5.2	9.5
11	8.8	8.4	44	15	239	72	96	22	7.0	26	5.2	8.0
12	7.7	8.0	38	15	165	66	77	21	6.6	36	4.5	*7.5
13	7.3	579	33	15	136	92	66	20	7.5	38	4.2	7.0
14	7.7	189	30	14	115	376	61	21	9.5	22	4.2	6.2
15	7.3	82	28	14	183	237	712	34	8.5	19	4.2	5.9
16	6.9	84	25	14	218	274	660	*26	9.0	17	*4.2	5.2
17	6.5	*79	24	13	1,010	205	278	21	8.0	28	4.5	4.8
18	6.5	55	55	12	2,070	169	183	19	6.6	25	21	4.5
19	6.9	679	66	15	532	131	140	18	24	16	17	4.5
20	*6.5	124	*54	19	300	105	*117	18	15	*13	8.0	4.8
21	6.1	83	46	19	201	91	98	17	141	21	7.5	5.2
22	5.8	66	41	18	156	80	85	16	*37	12	6.2	5.2
23	6.5	86	39	18	127	71	74	15	22	10	4.8	5.6
24	5.8	82	34	44	*184	65	62	17	18	9.5	4.2	6.2
25	5.4	74	31	42	210	57	56	16	14	8.5	3.9	7.0
26	5.8	68	27	*67	163	54	53	15	13	15	3.9	6.2
27	6.1	56	26	66	149	52	47	15	12	17	7.3	5.9
28	6.1	46	24	82	118	48	44	15	9.5	12	278	5.6
29	*11	37	22	2,730	93	*47	41	15	8.5	136	24	5.9
30	9.3	31	22	1,910	------	44	40	13	7.5	22	14	5.9
31	7.7	--- ---	22	473	------	41	------	12	------	15	12	------
Total	365.0	2,587.4	3,139	5,798	13,346	3,369	4,667	733	486.7	1,096.0	637.4	317.2
Mean	11.8	86.2	101	187	460	109	156	23.6	16.2	35.4	20.6	10.6
Cfsm	0.178	1.30	1.52	2.82	6.94	1.64	2.35	0.356	0.244	0.534	0.311	0.160
In.	0.20	1.45	1.76	3.25	7.49	1.89	2.62	0.41	0.27	0.61	0.36	0.18

Calendar year 1955: Max 7,750 Min 2.0 Mean 120 Cfsm 1.81 In. 24.64
Water year 1955-56: Max 2,730 Min 3.9 Mean 99.8 Cfsm 1.51 In. 20.49

Peak discharge (base, 3,000 cfs).--Nov. 13 (3 p.m.) 3,250 cfs (10.46 ft); Jan. 29 (10 p.m.) 5,890 cfs (15.27 ft); Feb. 3 (4:30 a.m.) 3,940 cfs (12.71 ft); Feb. 18 (1:30 a.m.) 4,240 cfs (13.27 ft).
* Discharge measurement made on this day.

Wartrace Creek at Bell Buckle, Tenn.

Location.--Lat 35°35'16", long 86°20'22", on downstream right bank wing wall of bridge on State Highway 82, 0.2 mile downstream from Kelly Creek, 0.9 mile east of Bell Buckle, Bedford County, 4.0 miles northeast of Fairfield, and 7.7 miles upstream from mouth.

Drainage area.--16.3 sq mi.

Records available.--December 1953 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 822.74 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 3,220 cfs Jan. 29 (gage height, 8.83 ft); no flow for many days in October, November, July, September.
1954-56: Maximum discharge, 8,240 cfs Mar. 21, 1955 (gage height, 11.25 ft), from rating curve extended above 1,200 cfs on basis of contracted-opening determination of peak flow; no flow at times each year.

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

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 3				Feb. 4 to Sept. 30			
2.12	0	2.9	18	2.11	0	2.7	7.8
2.2	.02	3.1	34	2.2	.04	2.8	14
2.3	.07	3.5	99	2.3	.2	3.0	32
2.4	.2	5.0	426	2.4	.5	3.5	98
2.5	.6	6.0	705	2.5	1.6	4.5	298
2.6	2.3	6.5	920	2.6	3.8	5.2	512
2.7	5.6	7.3	1,460				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.02	3.0	2.5	89	14	4.5	3.8	0.7	0	21	a0.5
2	0	.02	7.8	2.3	286	32	5.3	3.6	.4	0	7.8	a.3
3	0	.02	78	2.3	*499	23	6.4	6.4	.3	0	4.2	.2
4	0	.02	340	1.9	509	20	47	5.3	.3	16	2.6	.2
5	0	.01	60	1.9	128	17	15	3.6	.2	161	1.3	2.8
6	0	.01	29	1.6	116	15	186	2.8	.2	20	.9	40
7	22	0	20	1.4	69	19	48	19	.2	7.6	.6	10
8	2.3	0	14	.8	48	38	28	5.3	.2	4.5	.4	3.3
9	.3	0	9.9	.8	36	23	20	3.3	.1	18	.3	1.6
10	.2	0	7.8	.8	29	20	16	2.6	.1	7.6	.2	.7
11	.1	.01	6.1	1.4	61	17	15	2.1	.08	5.6	.2	.5
12	.07	.01	4.7	1.4	36	15	11	1.6	.06	4.6	.1	*.5
13	.04	46	3.9	1.0	27	46	9.8	1.2	.05	3.3	.08	.5
14	.04	25	3.6	.8	22	167	8.3	1.9	.1	1.9	.04	.4
15	.04	6.7	3.0	.8	50	61	179	10	.2	1.3	.3	.3
16	.03	10	2.3	.5	67	130	84	*3.6	.3	1.0	*.1	.2
17	.02	*5.8	2.3	.4	460	50	44	2.1	.2	1.2	.04	.1
18	.02	8.9	14	.4	408	38	29	1.3	.08	2.0	2.6	.09
19	.01	145	14	2.6	95	27	21	1.0	.7	.7	2.2	.08
20	*0	17	*12	3.0	60	20	*16	1.0	4.8	*.5	1.2	.06
21	0	8.8	9.9	2.3	42	16	12	3.1	2.0	1.3	.5	a.04
22	0	8.3	8.8	1.4	32	13	11	2.8	*.8	.3	.2	a.03
23	0	20	7.8	3.1	24	11	9.3	1.3	.2	.2	.04	a.02
24	0	12	6.7	9.9	*52	9.8	7.8	2.6	.2	.1	.04	a.02
25	0	16	6.1	18	55	8.3	6.8	1.3	.1	.1	.03	a.01
26	0	14	4.3	*19	33	7.8	6.4	1.0	.1	.08	.03	a.01
27	0	9.4	3.9	17	29	6.8	5.6	.8	.06	.08	2.3	a0
28	0	6.1	3.3	30	21	6.4	4.9	2.6	.05	11	82	a0
29	.01	3.9	2.7	1,390	16	*6.0	4.2	2.0	.02	112	3.3	a0
30	.04	3.0	3.0	333	------	5.6	4.5	.8	.01	4.2	1.2	a0
31	.05	------	2.7	79	------	5.3	------	.5	------	2.1	.7	------
Total	25.27	366.02	694.6	1,931.3	3,399	888.0	865.8	100.3	12.81	388.26	136.50	62.46
Mean	0.815	12.2	22.4	62.3	117	28.6	28.9	3.24	0.427	12.5	4.40	2.08
Cfsm	0.050	0.748	1.37	3.82	7.18	1.75	1.77	0.199	0.026	0.767	0.270	0.128
In.	0.06	0.84	1.58	4.41	7.76	2.03	1.98	0.23	0.03	0.89	0.31	0.14

Calendar year 1955: Max 2,660 Min 0 Mean 29.6 Cfsm 1.82 In. 24.61
Water year 1955-56: Max 1,390 Min 0 Mean 24.2 Cfsm 1.48 In. 20.26

Peak discharge (base, 2,000 cfs).--Jan. 29 (2:30 p.m.) 3,220 cfs (8.83 ft); Feb. 3 (2 a.m.) 2,210 cfs (8.08 ft); Feb. 17 (10:30 p.m.) 2,130 cfs (8.25 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 stations on nearby streams.

Duck River near Shelbyville, Tenn.

Location (revised).--Lat 35°28'49", long 86°29'57", on right bank 150 ft downstream from Sims Bridge, 2.1 miles upstream from Sugar Creek, 2.2 miles west of Shelbyville, Bedford County, 2.9 miles downstream from Flat Creek, and at mile 216.2.

Drainage area.--481 sq mi.

Records available.--April 1934 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 685.51 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--22 years, 794 cfs.

Extremes.--Maximum discharge during year, 15,400 cfs Jan. 30 (gage height, 22.32 ft); minimum, 66 cfs Sept. 21, 22, 23; minimum gage height, 0.94 ft Oct. 25, 26, 27.
1934-56: Maximum discharge, 62,900 cfs Feb. 13, 1948 (gage height, 36.40 ft, from floodmark), from rating curve extended above 27,000 cfs on basis of slope-area determination of peak flow; minimum, 5 cfs Aug. 23, 1936; minimum daily, 20 cfs Sept. 2, 1945.

Remarks.--Records good. Prior to 1948, diurnal fluctuation caused by powerplant upstream.

Revisions (water years).--WSP 783: 1934. WSP 853: Drainage area.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 4		Dec. 5 to Sept. 30			
0.9	62	0.9	59	6.0	2,200
1.5	169	1.5	167	12.0	5,850
2.0	287	2.0	285	20.0	12,600
3.0	740	2.5	460	22.0	15,000
9.0	3,850				
13.0	6,400				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	78	161	167	2,930	760	336	336	174	333	116	96
2	88	75	185	163	3,440	995	343	332	182	1,020	257	94
3	83	75	221	160	10,100	1,190	360	615	165	312	211	86
4	75	75	6,330	154	13,300	1,310	3,600	770	154	263	141	81
5	72	75	4,740	149	10,800	1,200	3,730	690	145	570	125	76
6	70	75	2,140	145	4,730	1,000	3,520	482	141	894	*111	447
7	92	75	1,200	143	3,420	870	3,510	575	135	546	107	*315
8	304	75	830	137	2,360	875	2,100	655	131	300	98	158
9	149	75	610	131	1,780	845	1,340	448	129	1,480	93	116
10	104	76	464	127	1,410	735	1,020	371	125	1,100	89	98
11	86	80	374	129	1,900	645	895	322	121	580	86	89
12	80	85	315	129	1,710	585	775	285	116	*322	84	86
13	80	591	279	129	1,400	660	675	263	118	279	81	83
14	78	1,790	252	125	1,140	1,980	580	252	133	229	92	79
15	76	830	235	123	1,300	2,120	2,700	263	147	226	124	76
16	75	454	220	125	1,900	2,280	7,240	265	156	255	87	73
17	75	525	204	123	4,070	2,160	4,040	240	157	213	86	72
18	76	290	252	120	10,600	1,680	1,880	*224	125	211	84	69
19	*76	2,020	*396	141	8,120	1,260	*1,320	213	118	279	96	69
20	76	925	378	167	3,180	980	1,020	207	141	209	209	69
21	75	*560	322	165	2,170	850	820	229	300	187	129	67
22	73	333	285	158	1,610	685	700	329	*346	189	107	66
23	73	710	263	171	1,280	610	625	231	187	154	94	67
24	72	730	250	263	1,410	550	550	315	215	135	84	76
25	70	520	235	329	1,670	492	487	218	271	123	81	96
26	68	400	220	436	1,560	444	444	200	288	116	79	84
27	68	308	202	406	1,320	428	413	189	176	114	78	75
28	70	247	193	505	*1,110	410	385	185	154	165	351	70
29	80	206	180	3,450	900	*410	354	189	139	292	200	67
30	90	177	176	14,400	------	388	343	182	125	189	121	67
31	86	--	174	*9,080	------	368	-	169	--	135	107	------
Total	2,721	12,535	22,286	32,150	102,620	29,765	46,105	10,244	4,994	11,400	3,808	3,067
Mean	87.8	418	719	1,037	3,539	960	1,537	330	166	368	123	102
Cfsm	0.183	0.869	1.49	2.16	7.36	2.00	3.20	0.686	0.345	0.765	0.256	0.212
In.	0.21	0.97	1.72	2.49	7.93	2.30	3.56	0.79	0.39	0.88	0.29	0.24

Calendar year 1955: Max 32,200 Min 60 Mean 885 Cfsm 1.84 In. 24.98
Water year 1955-56: Max 14,400 Min 66 Mean 770 Cfsm 1.60 In. 21.77

Peak discharge (base, 8,000 cfs).--Dec. 4 (3:30 p.m.) 8,460 cfs (15.40 ft); Jan. 30 (1 p.m.) 15,400 cfs (22.32 ft); Feb. 4 (10 p.m.) 14,500 cfs (21.58 ft); Feb. 18 (7:30 p.m.) 11,700 cfs (19.03 ft).
* Discharge measurement made on this day.

Big Rock Creek at Lewisburg, Tenn.

Location.--Lat 35°26'56", long 86°47'09", on downstream side of center pier of bridge on State Highway 50, 800 ft east of Marshall County Courthouse in Lewisburg and at mile 17.9.

Drainage area.--24.9 sq mi.

Records available.--January 1954 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 705.01 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 2,910 cfs Jan. 29 (gage height, 10.30 ft); no flow for many days in October, November, August.

1954-56: Maximum discharge, 16,700 cfs Mar. 21, 1955 (gage height, 17.62 ft, from floodmarks), from rating curve extended above 2,400 cfs on basis of contracted-opening determination 0.6 mile upstream (drainage area, 19.0 sq mi); no flow at times each year.

Remarks.--Records fair.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to July 14				July 15 to Sept. 30			
0.25	0	0.7	8.0	0.2	0	0.6	2.0
.3	.08	1.0	23	.3	.03	.7	4.5
.4	1.0	2.0	110	.4	.1	.9	14
.5	2.7	3.0	290	.5	.6		
.6	5.2	5.0	760				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	7.2	4.3	108	36	12	12	1.3	16	0.04	0.05
2	0	.5	12	4.3	382	53	14	22	1.3	20	.1	.05
3	0	.2	66	4.1	692	85	17	20	1.2	16	.03	.03
4	0	0	390	4.1	752	54	54	12	1.2	3.7	.03	.03
5	0	0	84	3.8	221	48	27	9.6	.7	1.9	.02	.03
6	0	0	54	3.8	197	43	173	8.0	.6	1.6	.02	.9
7	.06	0	42	3.8	102	50	50	8.4	.5	1.4	*.01	*.7
8	0	0	31	3.6	76	51	38	6.9	.4	1.4	0	.5
9	0	0	21	3.6	62	40	34	5.5	.5	16	0	.1
10	0	.03	18	3.6	63	36	32	4.6	.5	2.1	0	.05
11	0	.04	16	3.6	73	33	31	4.3	.5	1.4	.01	.04
12	0	.04	14	3.6	54	32	26	3.8	.3	*1.6	.02	.03
13	0	141	12	3.4	48	130	25	3.8	.3	1.8	.01	.03
14	0	42	10	3.1	44	215	22	4.1	.3	7.5	.01	.03
15	0	13	8.4	3.1	81	80	201	7.3	.3	3.8	.02	.03
16	0	*27	7.7	3.1	141	128	90	4.9	.3	.9	.01	.03
17	0	14	7.4	2.9	572	70	55	*3.8	.2	.4	1.4	.02
18	0	44	14	2.9	595	57	44	3.1	.3	.3	.2	.02
19	*0	243	*13	13	144	48	*39	2.9	.5	.2	4.7	.02
20	0	38	11	9.2	88	41	34	2.7	14	.1	2.8	.02
21	0	20	9.6	5.5	66	37	30	2.5	*10	.08	.5	.02
22	0	14	8.4	5.2	55	32	28	1.9	1.8	.07	.07	.02
23	0	44	8.0	9.1	48	29	25	4.7	1.4	.1	.04	.04
24	0	26	7.4	18	73	26	22	3.8	1.4	.05	.03	.03
25	0	21	6.6	*20	68	23	19	2.1	4.0	.04	.03	.03
26	0	16	6.3	24	54	21	16	2.1	2.4	.04	.03	.02
27	0	12	5.8	24	*49	21	14	2.1	1.4	.03	.02	.02
28	.01	8.8	5.5	38	44	17	12	2.1	2.5	.03	12	.02
29	0	7.4	4.9	671	40	*15	10	1.8	1.7	.02	.4	.02
30	0	6.6	5.2	*527	------	12	16	1.4	1.4	.02	.1	.02
31	0	------	4.6	114	------	12	------	1.0	------	.01	.07	------
Total	0.07	738.61	911.0	1,542.7	4,992	1,575	1,210	175.2	53.2	98.59	22.72	2.95
Mean	0.0023	24.6	29.4	49.8	172	50.8	40.3	5.65	1.77	3.18	0.733	0.098
Cfsm	0.000092	0.988	1.18	2.00	6.91	2.04	1.62	0.227	0.071	0.128	0.029	0.0039
In.	0.0001	1.10	1.36	2.30	7.46	2.35	1.81	0.26	0.08	0.15	0.03	0.004

Calendar year 1955: Max 3,800 Min 0 Mean 47.4 Cfsm 1.90 In. 25.83
Water year 1955-56: Max 752 Min 0 Mean 30.9 Cfsm 1.24 In. 16.90

Peak discharge (base, 1,500 cfs).--Jan. 29 (7 p.m.) 2,910 cfs (10.30 ft); Feb. 4 (4 a.m.) 2,280 cfs (9.50 ft); Feb. 17 (8:30 a.m.) 2,010 cfs (9.05 ft).

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

Duck River at Columbia, Tenn.

Location (revised).--Lat 35°37'05", long 87°01'56", on right bank 4 ft downstream from bridge on former U. S. Highway 31, 2 blocks north of public square at Columbia, Maury County, 0.7 mile downstream from Columbia hydroelectric plant, 2.4 miles upstream from Rutherford Creek, and at mile 132.8.

Drainage area.--1,208 sq mi.

Records available.--October 1904 to December 1908 and April 1920 to September 1956 in reports of Geological Survey. October 1904 to December 1908 and April 1920 to October 1924 (prior to December 1922, revised) in Tennessee Division of Geology Bulletin 34. Gage-height records collected in this vicinity, during periods of high water, since 1886, are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 535.52 ft above mean sea level, datum of 1929. Prior to Jan. 9, 1925, chain, tape, or staff gages near this site; all gages at datum 2.37 ft higher prior to Oct. 1, 1933.

Average discharge.--40 years (1904-8, 1920-56), 1,915 cfs.

Extremes.--Maximum discharge during year, 27,800 cfs Feb. 18 (gage height, 34.54 ft); minimum, 27 cfs Oct. 30 (gage height, 1.49 ft); minimum daily, 29 cfs Oct. 30.
1904-8, 1920-56: Maximum discharge, 61,100 cfs Feb. 14, 1948 (gage height, 51.75 ft); no flow Oct. 22, 1922.
Flood of Mar. 30, 1902, reached a stage of 48.0 ft, present datum (discharge, 50,700 cfs).

Remarks.--Records good. Occasional diurnal fluctuation and infrequent regulation at low flows caused by powerplants above station. Prior to about 1953, fluctuation and regulation were more pronounced.

Revisions (water years).--WSP 783: 1929(M). See also Records available.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 20 to Sept. 25)

1.5	28	9.0	4,100
1.7	62	20.0	13,700
2.0	168	30.0	22,700
4.0	1,020	34.0	27,000
6.0	2,180		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	36	413	277	21,000	1,740	679	654	262	258	281	234
2	117	62	377	273	13,100	1,620	633	637	219	226	238	164
3	113	94	528	262	17,300	2,000	633	641	199	756	215	125
4	106	98	2,990	246	23,600	2,570	1,500	726	195	658	301	113
5	110	90	10,600	250	25,800	2,460	4,280	1,020	199	545	397	135
6	110	84	8,480	226	25,000	2,150	10,100	970	180	532	273	*133
7	102	79	3,720	223	16,700	1,890	10,100	1,080	172	739	*211	301
8	90	79	2,140	215	7,950	2,750	6,240	808	164	862	168	625
9	87	76	1,510	211	5,250	2,680	3,660	1,090	152	629	125	462
10	195	84	1,170	195	3,800	2,120	2,440	722	148	1,260	106	321
11	269	84	786	180	3,420	1,830	1,930	679	141	*1,520	90	230
12	199	82	791	176	4,160	1,530	1,660	479	141	927	87	168
13	160	118	612	172	3,320	1,420	1,420	462	141	654	82	133
14	129	435	633	172	2,760	5,920	1,180	438	148	545	103	113
15	106	2,250	475	172	2,640	7,290	1,510	795	152	471	329	106
16	98	1,330	438	172	4,630	5,550	6,640	1,160	145	397	116	90
17	90	813	426	160	11,700	5,770	10,500	*688	148	487	90	87
18	90	791	413	160	26,200	4,300	6,790	612	168	574	106	84
19	*90	1,680	*417	180	24,100	3,220	*3,150	428	176	285	106	84
20	90	3,870	612	215	18,200	2,500	2,230	329	262	293	117	79
21	87	*2,170	658	285	8,020	2,010	1,750	325	*466	329	102	82
22	90	1,050	612	345	4,490	1,670	1,370	301	357	313	152	82
23	90	853	541	345	3,380	1,420	1,250	446	397	254	211	82
24	84	1,210	487	377	2,870	1,260	951	554	450	234	160	79
25	84	1,330	454	*562	3,260	1,110	975	475	309	219	129	73
26	82	1,110	426	804	3,350	995	817	499	262	188	106	70
27	82	917	393	1,000	*3,030	912	817	385	281	160	94	70
28	234	730	365	1,190	2,490	848	730	325	365	137	102	70
29	97	524	333	6,500	2,080	*800	671	289	273	117	102	70
30	29	458	309	20,500	------	760	574	266	246	160	117	70
31	32	---	285	*23,800	------	726	------	258	------	188	309	------
Total	3,448	22,587	42,394	59,845	293,600	73,821	87,180	18,541	6,918	14,917	5,125	4,535
Mean	111	753	1,368	1,930	10,120	2,381	2,906	598	231	481	165	151
Cfsm	0.092	0.623	1.13	1.60	8.38	1.97	2.41	0.495	0.191	0.398	0.137	0.125
In.	0.11	0.70	1.31	1.84	9.04	2.27	2.68	0.57	0.21	0.46	0.16	0.14

Calendar year 1955: Max 46,200 Min 29 Mean 2,176 Cfsm 1.80 In. 24.48
Water year 1955-56: Max 26,200 Min 29 Mean 1,729 Cfsm 1.43 In. 19.49

Peak discharge (base, 16,000 cfs).--Jan. 31 (3 to 4 p.m.) 24,100 cfs (31.53 ft); Feb. 6 (2:30 a.m.) 26,200 cfs (33.36 ft); Feb. 18 (1:30 p.m.) 27,800 cfs (34.54 ft).
* Discharge measurement made on this day.

Rutherford Creek near Carters Creek, Tenn.

Location.--Lat 35°40'23", long 86°58'42", on right bank at upstream side of county road bridge, 1 mile downstream from Double Branch, 3.2 miles south of town of Carters Creek, Maury County, 3.5 miles upstream from Carters Creek, and 5.1 miles northeast of Columbia.

Drainage area.--68.8 sq mi.

Records available.--September 1953 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 590 ft (from topographic map).

Extremes.--Maximum discharge during year, 7,480 cfs Feb. 17 (gage height, 20.15 ft), from rating curve extended above 2,700 cfs on basis of slope-area determination at gage height 24.38 ft; no flow Aug. 14, 16-18, Sept. 17-30.
1953-56: Maximum discharge, 11,800 cfs Mar. 22, 1955, from rating curve extended above 2,700 cfs on basis of slope-area determination of peak flow; no flow for many days each year.

Remarks.--Records good except those above 3,000 cfs, which are fair, and those below 10 cfs and those for periods of no gage-height record, which are poor.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 2-4, June 23, 24, July 10-18, 21, Sept. 1, 7-9)

1.1	0	2.0	35
1.2	.2	2.4	87
1.3	1.0	3.0	182
1.4	2.3	4.0	373
1.5	4.2	8.0	1,300
1.7	10	12.0	2,440
1.8	16	16.0	4,270

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	*0.07	3.4	4.9	425	96	41	32	a6	a3.5	*3.0	0.7
2	2.0	.05	4.6	4.9	984	*102	*37	*34	a5	a3	5.9	.5
3	1.4	.2	24	4.9	1,100	299	50	32	a4.5	a2.5	5.2	.3
4	*1.0	.2	365	*4.6	1,930	172	186	30	*4.4	a2	3.4	*.2
5	.4	.2	*60	4.4	699	131	57	26	4.4	*1.4	2.0	.2
6	.3	.2	33	4.2	779	116	1,750	25	4.2	1.2	1.5	6.0
7	.2	.1	19	4.2	471	111	373	21	4.0	1.0	1.0	2.4
8	.2	.1	13	4.0	344	251	232	20	3.8	1.4	.4	1.1
9	.2	.1	10	3.8	274	141	174	18	3.4	32	.2	.7
10	.2	.3	8.5	3.8	222	119	143	a16	3.0	7.3	.1	.4
11	.1	.6	7.5	3.8	242	104	130	a15	3.0	2.3	.03	.4
12	.1	.5	6.6	4.0	177	96	106	a14	2.8	14	.01	.2
13	.1	.5	6.3	4.0	146	144	90	a13	2.6	24	.01	.1
14	.2	1.9	6.0	4.0	127	949	80	a15	2.4	7.9	0	.1
15	.1	3.2	5.4	3.8	332	354	179	53	2.6	9.1	.01	.03
16	.1	3.6	5.4	3.8	360	392	186	18	3.4	3.4	0	.01
17	.07	4.0	5.2	3.8	3,060	259	116	a15	3.8	2.6	0	0
18	.07	5.2	6.0	3.8	3,910	211	94	a13	3.8	3.2	0	0
19	.05	76	7.8	5.2	680	170	83	a12	4.5	2.0	.3	0
20	.05	14	6.9	6.9	443	138	76	a12	72	a15	2.2	0
21	.05	6.6	6.3	6.6	318	117	68	a11	399	3.6	1.0	0
22	.03	5.2	6.0	5.7	247	104	61	a10	54	2.2	3.0	0
23	.01	6.0	6.0	6.0	204	93	55	a9	14	1.5	1.5	0
24	.01	7.5	6.0	6.9	209	84	48	32	8.8	1.2	.9	0
25	.01	6.6	5.7	7.5	284	73	45	a12	a7.5	1.0	.5	0
26	.01	5.4	5.4	8.5	187	69	40	a14	a7	.9	.2	0
27	.01	4.9	5.2	8.5	154	64	36	a11	a6.5	.7	.2	0
28	.03	4.4	4.9	10	128	57	34	a9	a6	.5	14	0
29	.2	3.8	4.9	1,910	106	54	31	a7.5	a5	a30	12	0
30	.5	3.6	4.9	1,180	-------	47	30	a6.5	a4	38	2.0	0
31	.2	---	4.9	381	-------	43	-------	a5.5	-------	6.3	1.1	-------
Total	15.70	165.02	663.8	3,617.5	18,542	5,160	4,631	561.5	655.4	224.7	61.66	13.34
Mean	0.506	5.50	21.4	117	639	166	154	18.1	21.8	7.25	1.99	0.445
Cfsm	0.0074	0.080	0.311	1.70	9.29	2.41	2.24	0.263	0.317	0.105	0.029	0.0065
In.	0.008	0.09	0.36	1.96	10.02	2.79	2.50	0.30	0.35	0.12	0.03	0.007

Calendar year 1955: Max 5,000 Min 0 Mean 107 Cfsm 1.56 In. 21.13
Water year 1955-56: Max 3,910 Min 0 Mean 93.7 Cfsm 1.36 In. 18.54

Peak discharge (base, 1,800 cfs).--Jan. 29 (5 p.m.) 3,420 cfs (14.45 ft); Feb. 4 (12 m.) 3,270 cfs (14.14 ft); Feb. 17 (11 p.m.) 7,480 cfs (20.15 ft); Mar. 14 (5 a.m.) 1,980 cfs (10.62 ft); Apr. 6 (3 p.m.) 4,070 cfs (15.66 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of partial record, normal recession, and records for West Harpeth River near Leipers Fork.

Big Bigby Creek at Sandy Hook, Tenn.

Location (revised).--Lat 35°29'19", long 87°13'59", on right bank 45 ft west of Louisville & Nashville Railroad track, 0.2 mile downstream from bridge on U. S. Highway 43, 0.4 mile northeast of Sandy Hook, Maury County, 0.5 mile upstream from Dry Creek, and 3.5 miles southwest of Mount Pleasant.

Drainage area.--17.5 sq mi.

Records available.--September 1953 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 670.59 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 1,630 cfs Feb. 17 (gage height, 8.91 ft), from rating curve extended above 830 cfs; minimum, 2.0 cfs Sept. 17 (gage height, 0.80 ft). 1953-56: Maximum discharge, 2,550 cfs Mar. 21, 1955 (gage height, 11.22 ft), from rating curve extended above 830 cfs; minimum, 1.5 cfs Sept. 4-7, 1954; minimum gage height, 0.80 ft Sept. 17, 1956.

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

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 13				Mar. 14 to Sept. 30			
1.0	2.6	2.0	51	0.8	2.0	1.5	24
1.2	6.7	3.0	180	.9	3.1	2.0	59
1.4	13	4.0	365	1.0	4.8	3.0	176
1.5	17	5.0	575	1.2	9.2	4.0	365
				1.3	12		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a6	*4.1	5.9	4.7	57	19	12	14	6.4	4.2	*4.0	2.8
2	a5	4.7	7.9	4.7	*132	*25	*11	*18	6.2	4.0	6.7	2.6
3	a4.5	5.7	9.5	4.7	256	25	14	19	6.0	3.8	6.4	2.6
4	*4.3	5.3	37	*4.5	430	24	31	16	*6.0	4.0	4.8	*2.5
5	4.3	5.3	*18	4.5	124	23	20	15	5.8	*4.5	4.3	2.5
6	4.1	5.3	12	4.5	107	23	314	14	5.8	5.2	4.0	3.1
7	4.3	5.1	9.9	4.5	68	24	100	20	5.6	4.5	3.8	3.1
8	4.5	4.9	8.4	4.5	48	41	59	19	5.6	4.3	3.4	2.6
9	4.3	4.7	7.4	4.5	38	34	43	16	5.4	5.2	3.3	2.5
10	4.1	5.3	6.9	4.5	31	30	38	13	5.2	5.0		2.5
11	3.9	5.3	6.4	4.5	33	26	38	12	5.0	4.3		2.4
12	3.9	5.3	5.9	4.5	27	23	32	11	4.8	4.0	a3.2	2.4
13	4.7	6.4	5.7	4.5	23	27	28	10	5.4	4.0		2.3
14	4.7	9.9	5.7	4.5	21	157	27	9.5	6.6	16		2.2
15	4.7	8.4	5.7	4.5	35	80	38	23	6.4	7.4		2.2
16	4.5	6.7	5.3	4.5	77	72	48	14	6.0	5.8		2.2
17	4.3	5.9	5.3	4.5	520	55	40	11	5.6	5.2		2.1
18	4.3	6.4	7.7	4.5	552	47	33	10	5.2	4.7	a3.3	2.1
19	4.3	47	7.9	9.0	121	40	29	9.5	4.8	4.3		2.2
20	4.3	13	7.4	7.7	65	34	25	9.2	5.4	6.2		2.4
21	4.1	9.3	6.9	6.7	46	30	23	8.4	6.4	5.0		2.4
22	4.1	7.9	6.2	6.4	37	28	20	7.7	6.4	4.5		2.4
23	3.9	12	5.9	6.7	32	25	18	7.9	5.8	4.3	a3.4	2.3
24	3.9	9.9	5.9	7.2	38	23	16	9.5	5.4	4.0		2.6
25	3.9	9.6	5.7	6.9	36	20	15	7.9	5.0	4.2		2.6
26	3.9	8.4	5.3	6.9	32	19	13	7.7	5.2	4.0		2.6
27	4.1	7.7	5.1	7.2	30	17	12	7.4	5.4	3.6	a3.6	2.6
28	5.1	6.9	5.1	14	26	15	11	7.2	5.0	3.4		2.6
29	7.4	6.2	4.9	130	22	14	11	6.8	5.2	3.3	3.3	2.6
30	4.7	5.9	4.9	169	------	13	12	6.6	4.7	3.4	3.1	2.6
31	4.3	--	4.9	49	------	13	------	6.4	------	3.4	3.0	----
Total	138.4	248.5	246.7	507.3	3,064	1,046	1,131	366.7	167.5	149.7	115.6	74.6
Mean	4.46	8.28	7.96	16.4	106	33.7	37.7	11.8	5.58	4.83	3.73	2.49
Cfsm	0.255	0.473	0.455	0.937	6.06	1.93	2.15	0.674	0.319	0.276	0.213	0.142
In.	0.29	0.53	0.52	1.08	6.51	2.22	2.40	0.78	0.36	0.32	0.25	0.16

Calendar year 1955: Max 1,400 Min 3.1 Mean 23.4 Cfsm 1.34 In. 18.15
Water year 1955-56: Max 552 Min 2.1 Mean 19.8 Cfsm 1.13 In. 15.42

Peak discharge (base, 600 cfs).--Feb. 4 (6 a.m.) 877 cfs (6.32 ft); Feb. 17 (11 p.m.) 1,630 cfs (8.91 ft); Apr. 6 (8 a.m.) 995 cfs (6.79 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 station near Mount Pleasant and Rutherford Creek near Carters Creek.

Big Bigby Creek near Mount Pleasant, Tenn.

Location.--Lat 35°30'12", long 87°13'54", near midchannel on downstream side of pier of bridge on U. S. Highway 43, 400 ft downstream from small water-supply dam, 0.7 mile (revised) downstream from Dry Creek, 2.55 miles southwest of Mount Pleasant, Maury County, and 2.6 miles upstream from West Fork.

Drainage area.--25.8 sq mi.

Records available.--September 1953 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 654.99 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 2,720 cfs Feb. 17 (gage height, 8.25 ft); minimum, 1.3 cfs Oct. 11, 12; minimum gage height, 0.77 ft Sept. 27-29.
1953-56: Maximum discharge, 3,740 cfs Mar. 21, 1955 (gage height, 10.20 ft), from rating curve extended above 2,200 cfs; minimum, 0.9 cfs Oct. 20-22, 1954; minimum gage height, 0.58 ft Sept. 23, 27-29, 1954.

Remarks.--Records fair except those for period Aug. 30 to Sept. 30, which are poor. Irregular discharge at low flow caused by removal and delayed return of ore-processing water upstream.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 30, Sept. 4-30)

Oct. 1 to Nov. 18		Nov. 19 to Sept. 30			
1.1	1.3	1.1	1.4	2.2	94
1.2	2.4	1.2	2.8	2.5	185
1.4	6.3	1.3	4.8	3.0	357
1.5	9.0	1.4	7.6	4.0	765
1.6	13	1.5	12	5.0	1,200
		2.0	53		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3	*4.5	3.5	5.0	90	28	21	22	6.1	5.5	*4.4	a2.7
2	7.0	5.2	7.0	7.3	*220	*32	*14	*25	8.2	4.3	18	a2.7
3	3.8	6.0	14	4.1	414	33	17	23	9.1	3.6	9.8	a2.6
4	*2.7	5.4	42	*2.5	716	32	40	22	*5.8	22	7.0	*2.5
5	1.8	5.2	*23	2.5	207	32	27	23	4.3	*6.5	5.8	2.3
6	1.7	2.3	16	2.9	169	31	473	22	4.3	8.9	4.8	2.1
7	1.9	2.6	15	5.9	105	34	172	25	4.3	6.1	4.0	2.5
8	4.7	4.7	9.2	5.8	70	58	85	24	4.8	8.9	3.6	2.3
9	5.8	3.3	7.0	3.8	53	48	53	22	6.1	8.9	3.6	2.6
10	3.4	3.4	7.2	3.3	44	45	44	20	7.3	5.9	4.3	2.6
11	1.6	2.9	7.3	4.0	49	41	46	18	5.2	4.8	4.3	2.5
12	1.4	5.9	4.8	4.4	40	33	38	20	4.3	4.0	4.0	2.5
13	3.4	8.4	3.5	4.8	32	43	32	18	4.3	3.6	3.6	*2.5
14	2.4	9.6	3.6	7.9	29	274	32	12	5.8	48	3.3	2.3
15	3.4	7.1	3.3	8.7	46	144	49	27	6.7	18	3.3	2.1
16	2.3	4.9	2.8	4.0	110	119	62	21	8.3	10	3.2	2.1
17	2.0	3.6	4.8	3.5	760	85	49	16	7.5	7.8	3.0	2.1
18	1.6	5.5	9.5	4.8	1,040	70	40	14	5.0	6.1	3.2	2.1
19	1.8	57	6.8	12	242	50	33	17	4.3	11	3.5	2.1
20	2.4	22	6.1	9.7	119	39	30	16	4.3	10	4.5	2.1
21	3.5	12	6.4	12	74	33	30	9.7	8.5	8.3	3.6	2.1
22	4.0	7.3	5.8	14	55	30	28	8.3	7.2	7.0	3.2	2.1
23	2.3	13	9.2	9.7	45	28	23	9.8	8.3	6.1	3.0	2.1
24	2.2	14	10	8.3	53	29	22	13	7.0	6.1	3.0	2.1
25	4.0	10	9.9	8.7	52	28	20	9.9	5.0	5.8	3.2	2.1
26	3.8	12	9.5	9.5	45	23	19	13	4.8	4.0	3.3	2.1
27	2.3	12	8.1	10	42	22	18	13	5.2	3.3	3.2	2.0
28	4.5	6.5	4.4	23	34	20	18	7.9	4.3	3.6	3.0	1.8
29	7.8	3.3	3.6	199	32	20	20	6.4	4.8	3.8	2.8	2.0
30	5.8	3.2	3.1	284	------	20	20	6.4	5.5	3.6	2.8	2.1
31	3.9	------	6.4	78	------	32	------	6.1	------	3.3	a2.8	------
Total	108.5	262.8	272.8	763.1	4,987	1,546	1,575	510.5	176.4	258.8	135.1	67.8
Mean	3.50	8.76	8.80	24.6	172	49.9	52.5	16.5	5.88	8.35	4.36	2.26
Cfsm	0.136	0.340	0.341	0.953	6.67	1.93	2.03	0.640	0.228	0.324	0.169	0.088
In.	0.16	0.38	0.39	1.10	7.19	2.23	2.27	0.74	0.25	0.37	0.19	0.10

Calendar year 1955: Max 2,320 Min 1.4 Mean 35.6 Cfsm 1.38 In. 18.75
Water year 1955-56: Max 1,040 Min 1.4 Mean 29.1 Cfsm 1.13 In. 15.37

Peak discharge (base, 1,000 cfs).--Feb. 4 (6:30 a.m.) 1,500 cfs (5.65 ft); Feb. 17 (11:30 p.m.) 2,720 cfs (8.25 ft); Apr. 6 (9 a.m.) 1,450 cfs (5.54 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of adjacent record, weather records, and records for station at Sandy Hook.

Piney River at Vernon, Tenn.

Location.--Lat 35°52'17", long 87°30'00", on left bank 500 ft upstream from county highway bridge, 600 ft upstream from Pretty Creek, 0.2 mile northwest of Vernon, Hickman County, 2.2 miles downstream from Mill Creek, 6.5 miles north of Centerville, and 8.4 miles upstream from mouth.

Drainage area.--193 sq mi.

Records available.--July 1925 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 464.89 ft above mean sea level, datum of 1929. Prior to Aug. 30, 1927, tape gage and Aug. 30, 1927, to Feb. 8, 1931, chain gage, at same site and datum. Feb. 9, 1931, to May 10, 1934, staff gage at site half a mile downstream at datum 2.77 ft lower.

Average discharge.--31 years, 304 cfs.

Extremes.--Maximum discharge during year, 15,000 cfs Jan. 29 (gage height, 13.78 ft); minimum, 53. cfs Sept. 16 (gage height, 0.62 ft).

1925-56: Maximum discharge observed, 32,500 cfs Dec. 21, 1926 (gage height, 16.5 ft); minimum discharge, 35 cfs Sept. 19, 20, 1936; minimum gage height observed, -0.09 ft Sept. 27, Oct. 16, 1951.

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in water-supply papers indicated:

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
623	1926	Jan. 21-22, 1926	6,320	8.5
683	1929	Feb. 26, 1929	9,040	9.85
698	1930	May 18, 1930	15,400	12.00
713	1931	Mar. 1, 1931	1,390	4.6
728	1932	Feb. 3, 1932	29,600	16.6
758	1934	Mar. 2, 1934	16,400	13.70

Remarks.--Records fair.

Revisions (water years).--WSP 758: 1927(M). WSP 823: Drainage area. Revised figures of discharge, in cubic feet per second, for periods in the water years 1927, 1929, and 1932, superseding those published in WSP 643, 683, and 728, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1926		1926-Con.		1929		1932-Con.	
Dec. 21	31,200	Dec. 30	2,220	Feb. 26	7,900	Jan. 30	4,320
22	3,800					Feb. 3	21,500
24	13,500	1927		1932		4	3,320
25	5,800	Mar. 8	2,550	Jan. 13	2,950	17	2,640
26	2,880	13	14,400	23	4,730	Apr. 30	5,840
28	2,660	21	2,220	29	3,730		

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1926	31,200	235	2,530	13.11	15.14
Calendar year 1926	31,200	63	392	2.03	27.57
March 1927	14,400	216	1,330	6.89	7.95
Water year 1926-27	31,200	66	684	3.54	48.09
Calendar year 1927	14,400	68	461	2.39	32.42
February 1929	7,900	178	626	3.24	3.38
Water year 1928-29	7,900	42	355	1.84	24.93
Calendar year 1929	7,900	70	343	1.78	24.14
January 1932	4,730	126	1,000	4.95	5.71
February	21,500	440	1,700	8.42	9.10
April	5,840	250	657	3.25	3.63
Water year 1931-32	21,500	48	420	2.08	28.28
Calendar year 1932	21,500	67	423	2.09	28.53

Piney River at Vernon, Tenn.--Continued

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 29				Jan. 29 to Sept. 30			
0.8	66	1.5	292	0.6	53	4.0	1,600
1.0	112	2.0	520	1.0	124	8.0	4,660
1.2	173	4.0	1,580	1.5	285	11.0	8,800
				2.0	485		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	159	77	98	79	994	409	208	222	113	84	a70	64
2	105	77	100	79	2,190	405	201	282	111	82	a75	62
3	90	79	102	77	3,800	389	208	357	106	82	a200	60
4	86	79	118	77	*3,050	361	1,280	297	106	82	a120	60
5	84	77	123	77	1,740	341	453	264	104	79	a90	60
6	81	77	118	75	1,200	333	2,330	246	100	79	78	60
7	*144	75	112	75	898	449	1,470	240	100	79	74	60
8	129	73	*110	75	720	494	795	218	98	79	71	58
9	102	73	107	75	615	469	580	204	97	84	70	58
10	93	73	102	75	521	441	490	194	97	*79	*68	58
11	88	73	100	75	508	409	445	184	95	76	68	58
12	88	73	95	75	453	381	*385	171	93	78	66	58
13	105	73	93	75	413	381	337	165	95	84	66	*56
14	98	77	90	73	809	770	313	159	97	91	73	56
15	90	84	90	73	2,050	760	333	162	98	89	131	56
16	88	81	88	70	1,790	815	341	156	95	82	73	54
17	84	79	88	70	*5,050	735	309	147	93	81	70	54
18	84	81	90	70	6,970	630	293	142	91	82	68	56
19	84	144	88	98	2,880	521	274	137	*98	147	82	56
20	81	129	86	98	2,100	449	264	134	150	232	188	58
21	79	107	84	88	1,260	405	250	132	150	102	91	58
22	77	*100	84	86	886	369	240	129	109	86	78	58
23	77	135	84	88	680	*337	229	129	102	81	74	58
24	75	150	84	88	650	317	*215	129	100	82	71	59
25	75	132	84	86	775	293	208	122	95	84	68	56
26	75	120	81	86	695	278	201	122	98	79	68	54
27	75	115	79	84	615	268	194	122	102	76	68	54
28	77	107	79	88	521	250	187	*117	93	74	68	54
29	84	102	79	5,580	449	236	187	115	89	a73	66	54
30	81	100	79	*7,660	-------	226	198	115	88	a72	66	54
31	77	-------	79	1,490	-------	215	-------	113	-------	a71	66	-------
Total	2,815	2,822	2,894	16,965	45,282	13,136	13,418	5,426	3,063	2,731	2,585	1,721
Mean	90.8	94.1	93.4	547	1,561	424	447	175	102	88.1	83.4	57.4
Cfsm	0.470	0.488	0.484	2.83	8.09	2.20	2.32	0.907	0.528	0.456	0.432	0.297
In.	0.54	0.54	0.56	3.27	8.73	2.53	2.59	1.05	0.59	0.53	0.50	0.33

Calendar year 1955: Max 10,800 Min 62 Mean 313 Cfsm 1.62 In. 22.01
Water year 1955-56: Max 7,660 Min 54 Mean 308 Cfsm 1.60 In. 21.76

Peak discharge (base, 4,000 cfs).--Jan. 29 (8 p.m.) 15,000 cfs (13.78 ft); Feb. 3 (10:30 a.m.) 5,550 cfs (8.79 ft); Feb. 18 (5:30 a.m.) 9,760 cfs (11.48 ft); Apr. 6 (3:30 p.m.) 4,540 cfs (7.78 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for stations on Buffalo River.

Duck River above Hurricane Mills, Tenn.

Location.--Lat 35°55'42", long 87°44'26", on left bank a quarter of a mile downstream from Tumbling Creek, 1.5 miles upstream from bridge on State Highway 13, 3.8 miles southeast of Hurricane Mills, Humphreys County, and at mile 26.0.

Drainage area.--2,557 sq mi.

Records available.--July 1925 to September 1956. Prior to October 1951, published as "near Hurricane Mills."

Gage.--Water-stage recorder. Datum of gage is 370.53 ft above mean sea level, datum of 1929. Prior to June 2, 1927, tape gage, June 2, 1927, to Feb. 20, 1934, staff gage, and Feb. 21, 1934, to Sept. 30, 1951, water-stage recorder, at bridge 5.6 miles downstream at datum 8.80 ft lower.

Average discharge.--31 years, 3,924 cfs.

Extremes.--Maximum discharge during year, 47,500 cfs Feb. 20 (gage height, 22.75 ft); minimum, 325 cfs Sept. 29, 30 (gage height, 0.59 ft).

1925-56: Maximum discharge, 122,000 cfs Feb. 14, 1948 (gage height, 30.70 ft, from floodmark in gage house, present site and datum); minimum, 185 cfs Sept. 11, 12, 1925; minimum gage height, 0.15 ft Oct. 2, 1941, site and datum then in use.

Revisions.--The date of the maximum discharge for the water year 1938 has been revised to Jan. 25, 1938, superseding figure published in WSP 853. Figures of maximum discharge for the water years 1926 and 1928 have been revised to 20,400 cfs Jan. 22, 1926 (gage height, 14.54 ft) and 23,200 cfs Apr. 24, 1928 (gage height, 15.58 ft), superseding those published in WSP 623 and 663, respectively.

Remarks.--Records good. Occasional diurnal fluctuation and infrequent regulation at low flows caused by powerplants above station. Prior to about 1953, fluctuation and regulation were more pronounced. Minor diversions for irrigation.

Revisions (water years).--WSP 803: 1935. WSP 823: 1927(M). WSP 853: Drainage area. Revised figures of discharge, in cubic feet per second, for periods in the water years 1926, 1927, and 1928, superseding those published in WSP 623, 643, and 663, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1926		1926-Con.		1926-Con.		1928	
Jan. 19	5,850	Dec. 13	8,460	Dec. 30	50,200	Mar. 10	16,400
20	6,620	14	11,200	31	45,200	11	21,600
21	10,500	15	13,400			12	19,100
22	20,400	16	9,480	1927		18	14,800
23	17,200	17	6,460	Mar. 8	18,300	19	12,000
24	13,900	21	42,100	9	19,100	20	9,140
25	9,310	22	50,200	10	19,300	Apr. 1	14,900
26	6,460	23	38,900	11	18,300	16	12,500
Dec. 1	13,900	24	35,400	12	17,900	22	12,900
2	10,500	25	47,400	13	38,000	23	20,400
3	6,940	26	56,200	14	65,000	24	23,200
10	5,850	27	50,200	15	50,200	25	20,200
11	7,610	28	49,600	16	26,600	26	11,700
12	7,270	29	50,200	17	17,000		

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
January 1926	20,400	952	4,190	1.63	1.88
Water year 1925-26	20,400	276	2,580	1.00	13.62
December 1926	56,200	2,710	21,000	8.17	9.42
Calendar year 1926	56,200	320	4,030	1.57	21.30
March 1927	65,000	3,230	14,600	5.68	6.54
Water year 1926-27	65,000	338	6,650	2.59	35.13
Calendar year 1927	65,000	338	4,760	1.85	25.11
March 1928	21,600	1,540	6,340	2.47	2.84
April	23,200	2,020	7,240	2.82	3.14
Water year 1927-28	23,200	260	3,580	1.39	18.93
Calendar year 1928	23,200	260	3,700	1.44	19.60

Duck River above Hurricane Mills, Tenn.--Continued

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 7

0.8	395	9.0	9,600
1.0	500	16.0	23,000
1.5	790	20.0	34,700
2.0	1,180	23.0	49,000
5.0	4,080		

Feb. 8 to Sept. 30

0.5	280	6.0	5,100
1.0	535	9.0	9,600
2.0	1,180		

Note.--Same as preceding table above 9.0 ft.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,020	533	1,040	713	29,600	4,500	1,990	1,970	832	g730	546	475
2	764	462	908	689	31,100	4,100	1,910	2,140	790	*645	601	455
3	616	445	916	671	33,900	3,960	2,080	2,730	778	628	850	546
4	528	435	980	665	31,500	4,390	3,700	2,620	772	645	1,030	513
5	489	430	1,910	660	32,500	5,020	3,270	2,410	724	874	760	470
6	462	440	8,430	638	35,400	4,880	8,600	2,360	706	1,120	672	450
7	*572	456	10,100	621	36,100	4,610	20,600	2,700	684	1,040	700	785
8	594	462	*5,790	610	33,700	4,820	18,600	2,790	g656	936	645	790
9	544	450	3,580	604	18,500	6,000	12,400	2,600	g628	1,100	557	568
10	494	445	2,650	594	10,500	5,930	8,300	2,190	g606	1,450	513	712
11	462	445	2,110	588	8,130	4,970	6,050	2,230	g590	1,160	480	760
12	456	445	1,760	582	6,960	4,360	*4,920	1,830	g574	1,860	455	650
13	555	450	1,560	577	7,070	4,020	4,220	1,690	g562	1,820	435	*557
14	648	484	1,260	566	6,770	4,880	3,780	1,470	g562	1,700	415	491
15	599	489	1,110	555	8,260	11,100	3,490	1,370	g562	1,950	486	445
16	544	817	1,020	555	9,280	13,100	3,620	1,430	g601	1,630	820	415
17	511	2,380	964	555	16,100	11,200	7,180	1,920	g584	1,230	700	385
18	484	1,730	825	555	36,000	10,400	12,500	1,930	g568	985	601	365
19	462	1,480	860	610	45,400	8,660	10,100	1,480	*552	1,010	524	360
20	450	1,870	868	665	46,200	6,850	5,870	1,340	623	2,050	628	g355
21	450	3,670	839	683	38,300	5,480	4,260	1,230	784	1,820	850	g350
22	450	*3,840	956	671	21,200	4,600	3,590	1,010	772	1,160	742	g345
23	445	2,540	1,050	701	10,200	4,040	3,130	999	1,710	964	601	g340
24	435	1,850	1,030	777	7,840	3,600	2,700	971	1,150	856	530	g340
25	425	1,640	972	790	6,980	3,260	2,540	1,080	880	796	496	g335
26	420	1,980	900	797	7,070	2,970	2,180	g1,220	g880	*700	513	g335
27	415	1,940	868	948	6,820	2,730	2,140	g1,160	g838	650	*496	g330
28	415	1,720	818	1,290	6,150	2,520	1,900	1,130	g760	601	g491	g330
29	450	1,470	784	7,150	*5,180	2,360	1,890	1,020	g712	557	g491	g325
30	462	1,270	751	*29,300	------	*2,200	1,830	*843	g742	530	g486	g325
31	*566	----	725	31,900	------	2,090	------	880	----	*508	486	----
Total	16,187	37,068	58,134	87,280	592,710	163,600	169,340	52,843	22,182	33,705	18,600	13,902
Mean	522	1,236	1,875	2,815	20,440	5,277	5,645	1,705	739	1,087	600	463
Cfsm	0.204	0.483	0.733	1.10	7.99	2.06	2.21	0.667	0.289	0.425	0.235	0.181
In.	0.24	0.54	0.85	1.27	8.62	2.38	2.46	0.77	0.32	0.49	0.27	0.20

Calendar year 1955: Max 74,500 Min 300 Mean 4,162 Cfsm 1.63 In. 22.10
Water year 1955-56: Max 46,200 Min 325 Mean 3,458 Cfsm 1.35 In. 18.41

* Discharge measurement made on this day.
g Computed from once-daily radio-gage readings furnished by Tennessee Valley Authority and normal recession.

Buffalo River near Flat Woods, Tenn.

Location.--Lat 35°29'45", long 87°49'58", on right bank 0.5 mile downstream from Little Opossum Creek and bridge on State Highway 13, 1.3 miles north of Flat Woods, Perry County, 3.9 miles upstream from Sinking Creek, and at mile 58.7.

Drainage area.--447 sq mi.

Records available.--May 1920 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 513.58 ft above mean sea level, datum of 1929. Prior to May 27, 1934, staff gage at same site and datum.

Average discharge.--36 years, 723 cfs.

Extremes.--Maximum discharge during year, 13,800 cfs Feb. 19 (gage height, 18.07 ft); minimum, 112 cfs Sept. 18, 19 (gage height, 1.80 ft).

1920-56: Maximum discharge, 90,000 cfs Feb. 13, 1948 (gage height, 32.0 ft, from high-water mark in gage house), from rating curve extended above 50,000 cfs on basis of slope-area and contracted-opening determinations of peak flow and rainfall-runoff study; minimum observed, 65 cfs Sept. 9, 1925; minimum gage height observed, 1.12 ft Sept. 26, 1931.

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)
523	1921	Apr. 16, 1921	14,300	15.60
543	1922	Mar. 10, 1922	22,400	21.0
563	1923	Aug. 15, 1923	15,500	16.4
583	1924	Jan. 3, 1924	17,800	17.9
603	1925	May 11, 1925	7,590	10.80
643	1927	Mar. 13, 1927	52,200	29.30
758	1934	Mar. 25, 1934	17,000	18.3

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

Revisions (water years).--WSP 758: 1933. WSP 803: 1935. WSP 823: Drainage area. Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1922-24, superseding those published in WSP 543, 563, and 583, are given herewith:

1922	1922-Con.	1923-Con.	1924
Mar. 2..... 12,600	Mar. 11..... 12,000	Aug. 15..... 9,480	Jan. 3..... 14,300
3..... 5,500	1923	Dec. 23..... 13,400	4..... 10,700
10..... 10,200	Aug. 14..... 5,280		

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
March 1922.....	12,600	705	2,790	6.24	7.20
Water year 1921-22.....	12,600	135	779	1.74	23.63
Calendar year 1922.....	12,600	135	796	1.78	24.15
August 1923.....	9,480	230	1,010	2.26	2.60
Water year 1922-23.....	9,480	138	923	2.06	28.03
December 1923.....	13,400	310	1,610	3.60	4.15
Calendar year 1923.....	13,400	182	979	2.19	29.73
January 1924.....	14,300	490	1,830	4.09	4.72
Water year 1923-24.....	14,300	114	669	1.50	20.38
Calendar year 1924.....	14,300	114	547	1.22	16.67

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	203	210	230	206	2,010	598	364	522	249	238	170	176
2	206	200	230	203	2,980	642	361	542	252	224	176	155
3	185	200	250	203	6,290	722	358	678	235	207	238	142
4	170	200	300	203	8,360	694	392	698	228	197	242	140
5	167	205	400	200	8,970	646	530	674	224	194	200	140
6	164	200	500	200	3,870	622	1,850	622	221	197	182	182
7	*176	195	*405	200	2,520	618	4,540	2,640	218	218	168	224
8	176	190	349	197	1,790	842	2,150	2,150	210	200	155	191
9	170	185	314	197	1,400	984	1,380	1,210	207	204	152	176
10	164	185	286	194	1,160	862	1,070	902	204	*228	160	162
11	161	180	272	197	1,080	806	*1,020	734	194	246	204	150
12	170	180	251	*203	1,000	718	950	622	194	228	168	138
13	182	190	240	197	862	714	854	538	194	200	152	*132
14	182	220	221	194	770	1,050	770	482	224	191	165	132
15	173	320	218	191	814	1,810	774	550	270	235	194	128
16	170	450	215	194	1,210	1,500	1,060	662	294	347	228	122
17	170	350	209	194	*2,400	1,420	1,100	538	260	256	179	118
18	165	330	224	191	9,260	1,170	890	458	*228	204	165	115
19	165	400	282	234	10,300	1,010	782	410	214	194	160	115
20	165	700	268	304	3,030	878	698	382	256	274	188	120
21	165	450	244	272	1,790	770	630	364	434	312	228	122
22	165	*350	234	240	1,320	686	574	340	490	228	218	125
23	165	320	227	240	1,060	*630	538	319	450	197	182	122
24	160	310	227	265	974	578	494	308	326	197	165	125
25	160	320	224	268	974	530	454	305	274	200	160	125
26	160	300	218	262	882	490	430	294	280	197	155	125
27	160	285	215	254	786	466	406	284	403	182	*155	122
28	170	270	209	296	730	446	396	*277	375	173	158	120
29	190	250	206	637	658	418	386	266	298	168	162	120
30	210	240	20[illegible]	3,920	-------	400	406	260	263	173	162	120
31	215	-	20[illegible]	4,450	-------	378	-------	252	-------	197	160	-
Total	5,404	8,385	8,086	15,206	79,230	24,098	26,607	19,283	8,169	6,706	5,551	4,184
Mean	174	280	261	491	2,732	777	887	622	272	216	179	139
Cfsm	0.389	0.626	0.584	1.10	6.11	1.74	1.98	1.39	0.609	0.483	0.400	0.311
In.	0.45	0.70	0.67	1.27	6.59	2.00	2.21	1.60	0.68	0.56	0.46	0.35

Calendar year 1955: Max 39,700 Min 111 Mean 705 Cfsm 1.58 In. 21.40
Water year 1955-56: Max 10,300 Min 115 Mean 576 Cfsm 1.29 In. 17.54

Peak discharge (base, 4,500 cfs).--Jan. 31 (12:30 a.m.) 5,560 cfs (10.90 ft); Feb. 5 (4 a.m.) 10,100 cfs (15.28 ft); Feb. 19 (3 a.m.) 13,800 cfs (18.07 ft); Apr. 7 (8:30 a.m.) 5,090 cfs (10.36 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 16 to Dec. 6; discharge estimated on basis of weather records, recorded range in stage when available, and records for station near Lobelville.

Buffalo River near Lobelville, Tenn.

Location.--Lat 35°48'46", long 87°47'51", on right bank 30 ft upstream from Standing Rock Bridge, 1.4 miles downstream from State Highway 13, 3 miles north of Lobelville, Perry County, 13 miles downstream from Cane Creek, and at mile 17.7.

Drainage area.--707 sq mi.

Records available.--November 1927 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 403.15 ft above mean sea level, datum of 1929. Prior to June 1, 1934, staff gage 40 ft downstream on left bank at same datum.

Average discharge.--28 years (1928-56), 1,155 cfs.

Extremes.--Maximum discharge during year, 13,900 cfs Feb. 20 (gage height, 14.23 ft); minimum, 182 cfs Sept. 18-23 (gage height, 1.20 ft).
1927-56: Maximum discharge, 100,000 cfs Feb. 14, 1948 (gage height, 23.76 ft, from high-water mark in gage house), from rating curve extended above 40,000 cfs on basis of slope-area determination of peak flow; minimum, 135 cfs Aug. 18, 1953, caused by regulation upstream at unknown location; minimum discharge unaffected by regulation, 142 cfs Oct. 1-8, 1931; minimum gage height, 0.36 ft(revised) Oct. 3, 4, 7, 8, 1931.

Remarks.--Records good.

Revisions (water years).--WSP 803: 1935. WSP 853: 1928-37.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 29		Jan. 30 to Sept. 30			
1.3	231	1.2	182	10.0	5,370
1.5	277	1.5	260	12.0	8,000
2.0	404	2.0	397	13.0	9,950
3.0	750	3.0	750	14.0	13,000
6.0	2,280	6.0	2,280		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	315	377	315	5,170	1,070	630	802	382	391	276	244
2	310	305	374	310	4,270	1,040	603	874	368	360	321	244
3	298	300	388	308	6,240	1,040	592	890	362	332	371	250
4	284	300	459	305	8,390	1,160	698	988	354	310	343	239
5	268	302	536	302	10,600	1,140	666	1,030	343	291	343	234
6	256	305	790	300	10,500	1,090	2,810	968	335	283	326	231
7	*315	298	774	298	5,910	1,080	4,670	972	326	278	291	229
8	312	293	*655	298	3,510	1,160	5,220	2,340	318	283	273	260
9	293	286	560	295	2,700	1,290	3,140	2,360	313	302	255	281
10	275	282	504	293	2,170	1,440	2,220	1,580	310	*337	242	268
11	263	284	459	291	1,850	1,330	1,860	1,240	300	318	239	244
12	275	284	426	291	1,650	1,230	*1,640	1,040	291	326	252	231
13	300	286	399	291	1,500	1,180	1,540	902	291	321	260	*216
14	300	295	380	293	1,400	1,490	1,410	806	300	313	239	211
15	293	302	366	291	1,440	1,980	1,340	782	313	305	242	205
16	284	369	353	291	1,750	2,550	1,380	786	351	291	326	198
17	275	632	345	291	5,260	2,290	1,580	846	374	346	302	192
18	266	560	345	291	11,000	2,100	1,580	770	371	368	297	185
19	263	536	355	325	11,300	1,780	1,390	686	*346	337	268	182
20	263	632	374	361	12,200	1,540	1,240	619	329	527	368	182
21	261	982	393	393	4,600	1,380	1,120	574	368	450	362	182
22	261	*810	380	401	2,720	1,240	1,040	531	435	426	324	182
23	259	655	364	384	2,070	1,120	950	513	538	389	321	185
24	256	560	353	374	1,760	1,030	894	510	592	340	305	190
25	254	526	348	374	1,620	946	826	468	506	362	278	190
26	252	520	340	382	1,550	874	766	444	438	335	260	187
27	249	488	332	382	1,410	822	718	420	412	313	*250	187
28	259	456	328	393	1,260	774	682	*420	441	291	257	187
29	275	424	325	1,920	*1,160	738	662	406	486	278	263	185
30	288	393	320	5,710	-------	682	670	397	444	268	255	185
31	298	------	318	4,740	-------	*666	--------	385	--------	265	250	---- -
Total	8,655	12,980	13,020	21,493	126,960	39,252	44,537	26,329	11,337	10,336	8,959	6,386
Mean	279	433	420	693	4,378	1,266	1,485	849	378	333	289	213
Cfsm	0.395	0.612	0.594	0.980	6.19	1.79	2.10	1.20	0.535	0.471	0.409	0.301
In.	0.46	0.68	0.68	1.13	6.68	2.06	2.34	1.38	0.60	0.54	0.47	0.34

Calendar year 1955: Max 42,600 Min 180 Mean 1,086 Cfsm 1.54 In. 20.84
Water year 1955-56: Max 12,200 Min 182 Mean 902 Cfsm 1.28 In. 17.36

Peak discharge (base, 5,200 cfs).--Jan. 30 (8:30 a.m.) 6,290 cfs (10.81 ft); Feb. 6 (9:30 a.m.) 10,900 cfs (13.35 ft); Feb. 20 (6 a.m.) 13,900 cfs (14.23 ft); Apr. 8 (9 a.m.) 5,600 cfs (10.21 ft).
* Discharge measurement made on this day.
Note.--Discharge for Mar. 1-30, Apr. 16 to May 27, computed from bihourly radio-gage readings furnished by Tennessee Valley Authority.

Big Sandy River at Bruceton, Tenn.

Location.--Lat 36°02'19", long 88°13'42", on downstream end of right abutment of county bridge, 700 ft downstream from bridge on U. S. Highway 70, 0.6 mile upstream from Cherry Creek and 0.9 mile east of Bruceton, Carroll County.

Drainage area.--205 sq mi.

Records available.--July 1929 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 380.76 ft above mean sea level, datum of 1929. Prior to Mar. 1, 1940, chain gage at same site and datum.

Average discharge.--27 years, 294 cfs.

Extremes.--Maximum discharge during year, 11,800 cfs Jan. 30 (gage height, 14.85 ft); minimum, 35 cfs Aug. 19 (gage height, 2.17 ft).
1929-56: Maximum discharge, 17,000 cfs Jan. 21, 1935 (gage height, 16.16 ft, from graph based on gage readings), from rating curve extended above 9,000 cfs; minimum, 28 cfs Aug. 17-19, 22, Sept. 1, 1943.

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

Revisions (water years).--WSP 853: Drainage area. WSP 923: 1929-35.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 9-14, Mar. 5, 6, 9-12)

Oct. 1 to Jan. 30				Jan. 31 to Sept. 30			
2.4	51	11.0	1,670	2.1	31	11.0	1,620
2.7	77	11.5	1,970	2.5	59	12.0	2,700
3.0	110	12.0	2,700	3.0	110	13.0	5,150
4.0	250	13.0	5,150	9.0	983	14.0	8,500
8.0	946	15.0	12,400	10.0	1,190		
10.0	1,360						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	651	65	86	84	2,880	a180	122	612	69	56	41	38
2	784	66	154	82	2,140	a190	121	512	63	52	53	38
3	*382	91	147	79	2,230	a180	202	356	60	49	45	38
4	99	87	172	*77	2,500	a160	598	239	58	48	46	37
5	70	75	126	78	2,130	*152	492	170	57	*47	44	37
6	61	74	106	79	1,330	148	886	142	56	45	42	37
7	177	*71	101	77	*620	470	1,010	*150	55	45	39	38
8	89	69	97	74	344	720	956	132	53	45	38	36
9	63	69	91	72	349	440	*426	112	52	45	38	36
10	57	71	86	74	293	202	666	107	50	44	36	42
11	55	73	84	77	420	163	1,170	103	*50	43	37	45
12	116	73	*82	79	288	161	1,050	100	50	43	38	45
13	538	75	80	76	*194	338	863	a97	59	45	38	44
14	192	81	82	74	372	*1,280	348	a94	168	48	36	43
15	89	103	85	80	1,260	983	494	198	88	51	36	43
16	71	100	80	79	1,720	1,220	658	198	89	46	36	43
17	65	106	79	72	2,160	882	407	104	73	44	36	43
18	64	94	96	75	3,240	508	240	a82	63	43	37	43
19	64	380	99	204	3,180	292	194	a74	65	43	36	45
20	*61	231	86	160	a2,500	230	172	a71	92	70	43	50
21	60	124	85	110	a1,500	201	159	69	70	50	48	48
22	59	108	84	99	a1,000	188	152	65	67	44	42	47
23	58	237	89	104	a700	176	148	61	57	43	39	54
24	57	285	88	103	a500	168	139	163	52	66	39	72
25	57	135	86	97	a400	151	134	89	50	81	37	41
26	59	111	82	92	a320	148	129	70	222	*51	36	39
27	60	101	79	90	a270	147	121	74	361	45	40	38
28	61	92	78	127	a230	143	115	170	112	43	40	38
29	73	84	77	2,080	a200	134	124	88	70	41	39	39
30	74	81	82	10,200	------	126	361	67	61	41	39	40
31	66	--	88	6,520	------	121	------	64	---	41	*38	---
Total	4,432	3,412	2,938	21,374	35,270	10,602	12,657	4,633	2,492	1,498	1,232	1,277
Mean	143	114	94.8	689	1,216	342	422	149	83.1	48.3	39.7	42.6
Cfsm	0.698	0.556	0.462	3.36	5.93	1.67	2.06	0.727	0.405	0.236	0.194	0.208
In.	0.80	0.62	0.53	3.88	6.40	1.92	2.30	0.84	0.45	0.27	0.22	0.23

Calendar year 1955: Max 5,500 Min 39 Mean 238 Cfsm 1.16 In. 15.76
Water year 1955-56: Max 10,200 Min 36 Mean 278 Cfsm 1.36 In. 18.46

Peak discharge (base, 2,000 cfs).--Jan. 30 (1 p.m.) 11,800 cfs (14.85 ft); Feb. 18 (12:30 p.m.) 3,430 cfs (12.37 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, normal recession characteristics, and records for South Fork Obion River near Greenfield.

Tennessee River near Paducah, Ky.

Location.--Lat 37°01'11", long 88°16'50", on left bank at Gilbertsville, Marshall County, 3,500 ft downstream from Kentucky Dam, 2.3 miles upstream from Shadie Creek, 16 miles east of Paducah, McCracken County, and at mile 21.7.

Drainage area.--40,200 sq mi, approximately (at Gilbertsville).

Records available.--October 1875 to September 1956. Prior to September 1889 (gage heights only) and October 1889 to September 1931, published as "at Johnsonville, Tenn." July 1930 to September 1931, published as "at Aurora Landing, Ky." October 1931 to August 1944, published as "near Johnsonville, Tenn." October 1931 to September 1935, published as "at Shannon dam site near Murray, Ky." October 1935 to December 1942, published as "near Buchanan, Tenn."

Gage.--Water-stage recorder at present site since Feb. 8, 1939. Datum of gage is 286.35 ft above mean sea level, datum of 1929. Feb. 8, 1939, to Sept. 30, 1942, water-stage recorder 16.3 miles downstream at same datum (prior to July 30, 1940, at datum 3.65 ft higher); Oct. 1, 1942, to Jan. 1, 1946, water-stage recorder 500 ft upstream from present site at same datum. Auxiliary water-stage recorder 16.3 miles downstream at same datum; Feb. 15, 1939, to Sept. 30, 1942, water-stage recorder 500 ft upstream from present base gage at same datum (prior to July 30, 1940, at datum 3.65 ft higher).

Prior to Oct. 21, 1926, U. S. Weather Bureau staff gages at various sites and datums in the vicinity of old Nashville, Chattanooga, & St. Louis Railway bridge near Johnsonville. Oct. 21, 1926, to Oct. 7, 1931, water-stage recorder at site 3.9 miles downstream from present U. S. Highway 70 bridge, at datum 320.72 ft above mean sea level, datum of 1929. Oct. 1, 1931, to Aug. 20, 1944, water-stage recorder at U. S. Highway 70 bridge at datum 1.21 ft lower.

July 15, 1930, to Dec. 12, 1942, staff and wire-weight gages and water-stage recorders used as base and auxiliary gages at five different locations, ranging from Paducah to river mile 66.2, all at different datums.

Average discharge.--67 years (1889-1956), 63,630 cfs.

Extremes.--Maximum discharge during year, 322,000 cfs Feb. 5; maximum gage height, 45.41 ft Feb. 9; minimum daily discharge, 19,700 cfs Jan. 15; minimum gage height, 13.25 ft Nov. 20.

1889-1956: Maximum discharge, 500,000 cfs Feb. 17, 1948; maximum gage height, 62.43 ft Feb. 2, 1937 at Gilbertsville, present datum; minimum daily discharge, 500 cfs Sept. 7, 1944.

Remarks.--Records good. Backwater from Ohio River and dam 52; discharge computed using fall as determined by auxiliary water-stage recorder as a factor. Discharge for days of extremely low fall (below 0.40 ft) computed on basis of records for Kentucky Dam. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station (see p. 226). Flow now almost completely regulated.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25,500	36,800	40,100	25,600	187,000	e85,500	e28,200	50,200	34,600	31,200	39,600	30,400
2	25,300	42,100	34,500	25,200	234,000	*e85,000	e29,100	53,600	35,600	30,900	38,700	31,000
3	30,200	41,000	32,900	28,900	271,000	e83,500	e26,400	52,200	36,200	33,200	*40,600	32,700
4	32,200	39,700	36,500	28,300	296,000	e83,600	e34,900	44,900	35,800	33,500	41,500	33,900
5	31,100	38,700	55,700	27,000	308,000	e78,300	48,300	40,100	e27,800	33,700	41,800	*31,600
6	29,900	29,400	58,200	27,900	296,000	e73,500	87,900	48,600	e28,900	31,300	40,100	31,500
7	32,800	38,000	58,600	23,200	*304,000	e73,400	126,000	50,800	e28,800	34,700	41,100	36,000
8	28,600	38,200	58,800	27,600	308,000	89,000	126,000	50,200	27,600	33,600	33,700	35,500
9	25,100	38,800	59,300	35,000	310,000	90,300	114,000	51,700	27,800	34,300	31,000	35,800
10	30,900	33,700	58,600	28,600	283,000	87,100	99,700	53,900	26,900	33,300	31,100	35,200
11	29,200	32,400	58,100	30,000	235,000	84,600	99,900	54,900	28,000	35,600	30,500	33,400
12	30,300	29,200	57,900	25,700	182,000	83,300	86,400	57,300	26,500	38,300	26,600	34,100
13	28,800	28,800	58,800	e20,000	134,000	78,600	*e53,900	56,200	27,200	42,500	33,600	33,300
14	30,700	29,900	57,500	e21,200	99,300	94,400	e54,100	57,000	27,200	43,200	30,900	32,600
15	26,600	36,600	57,400	e19,700	101,000	117,000	e54,500	55,700	26,800	29,900	33,000	32,400
16	25,600	40,000	55,000	24,800	101,000	142,000	106,000	*55,100	31,700	40,500	35,800	32,600
17	29,700	43,800	39,000	e20,200	128,000	153,000	136,000	54,500	33,700	41,600	37,400	36,500
18	36,200	40,700	39,200	e20,700	206,000	157,000	136,000	50,800	48,400	42,200	33,600	36,100
19	*38,300	38,400	42,700	e20,200	236,000	152,000	138,000	35,500	50,400	45,900	31,600	35,900
20	28,300	37,000	41,800	e20,300	246,000	150,000	117,000	29,800	49,100	46,100	30,900	35,700
21	28,800	*40,200	44,500	e20,900	234,000	130,000	83,900	33,200	34,500	46,200	41,800	35,800
22	26,200	40,600	45,300	e21,400	204,000	95,800	66,200	34,000	41,800	36,100	48,200	33,400
23	26,600	41,000	31,200	e21,600	182,000	e72,100	e58,600	32,500	42,100	36,100	46,800	30,200
24	33,900	40,400	24,200	29,400	181,000	e55,100	e55,000	29,300	33,400	32,800	42,300	29,700
25	34,600	43,000	22,500	31,800	182,000	e52,600	e55,000	32,000	33,500	36,500	34,500	29,800
26	32,100	41,500	21,800	30,400	165,400	e52,900	59,000	29,200	*35,100	35,000	35,000	34,100
27	31,400	32,400	31,300	31,300	123,000	e53,000	50,500	30,300	40,000	36,600	31,200	33,500
28	32,000	42,100	32,300	25,400	e95,100	e53,100	e37,800	35,700	41,800	35,800	28,700	35,800
29	32,700	43,800	*27,100	41,000	e84,200	e51,900	36,400	35,300	41,200	35,400	28,200	33,800
30	32,300	42,000	29,200	73,800	-------	e42,600	39,800	34,500	31,200	37,200	28,100	29,100
31	37,800	-- --	42,800	128,000	-------	e36,100	-------	34,100	------	36,100	31,200	------
Total	941,700	‡1,140.2	‡1,334.4	954,900	‡5,917.6	‡2,736.3	‡2,244.3	‡1,362.9	‡1,031.6	‡1,141.3	‡1,099.1	‡1,001.4
Mean	30,380	38,010	43,050	30,800	204,100	88,270	74,810	43,960	34,390	36,820	35,450	33,380
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1955: Max 284,000 Min 20,400 Mean 60,240 Cfsm 1.50 In. 20.34
Water year 1955-56: Max 310,000 Min 19,700 Mean 57,120 Cfsm 1.42 In. 19.34

* Discharge measurement made on this day.
‡ Expressed in thousands.
e Extremely low fall; discharge computed on basis of Kentucky Dam releases.
Note.--No gage-height record at auxiliary gage Dec. 24-29, June 8-24, July 19-29, Aug. 5-12, Aug. 20 to Sept. 2, Sept. 5-25; discharge estimated on basis of releases from Kentucky Dam.

East Fork Clarks River at Murray, Ky.

Location.--Lat 36°35'34", long 88°18'00", on downstream side of left pier of Nashville, Chattanooga & St. Louis Railway bridge, 0.1 mile downstream from bridge on State Highway 121, 1 mile south of Murray, Calloway County, and 1½ miles upstream from Clayton Creek.

Drainage area.--89.7 sq mi.

Records available.--October 1951 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 459.88 ft above mean sea level, datum of 1929.

Average discharge.--5 years, 92.1 cfs.

Extremes.--Maximum discharge during year, 7,900 cfs Feb. 18 (gage height, 12.60 ft); no flow for many days.
1951-56: Maximum discharge, 23,700 cfs Mar. 22, 1952 (gage height, 16.3 ft, from floodmark), from rating curve extended above 10,000 cfs by logarithmic plotting; no flow for many days each year.

Remarks.--Records good.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 28-30)

Oct. 1 to Jan. 29				Jan 30 to Sept. 30			
0.95	0	1.4	8.0	1.26	0	4.0	260
1.0	.4	1.7	21	1.3	.1	7.0	1,060
1.1	1.4	2.0	39	1.4	.7	9.0	1,780
1.2	2.9	3.0	136	1.5	2.0	9.5	2,040
1.3	5.1	4.0	282	2.0	26	10.0	2,540
				2.5	55	11.0	4,140
				3.0	105		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	0.5	0.7	1.3	1,390	23	10	24	1.2	0	137	0
2	.9	2.5	1.2	1.3	3,780	21	11	201	1.1	0	31	0
3	.3	3.4	3.6	1.3	*992	19	217	59	1.1	0	47	0
4	.1	.9	9.4	1.4	157	17	419	*34	.9	0	26	0
5	0	.8	3.5	1.3	64	16	41	22	.8	12	3.0	0
6	0	1.0	2.0	1.2	121	16	347	17	.7	5.9	1.2	0
7	0	.5	1.7	1.6	43	17	125	15	.6	.7	.6	0
8	0	.2	1.7	1.3	38	60	41	12	.5	.2	.6	0
9	0	.3	2.0	1.0	149	24	*26	11	.4	0	.4	0
10	0	.9	1.4	*1.1	43	18	1,040	9.5	.3	0	.4	0
11	0	.7	1.3	1.2	107	15	809	8.5	.3	*0	.3	0
12	17	.9	1.2	1.2	38	15	114	7.5	.1	15	.2	0
13	38	1.2	1.2	1.2	26	149	49	6.5	.1	6.0	.2	0
14	2.8	1.6	1.3	1.1	184	2,070	35	5.5	.1	65	0	.9
15	1.1	2.0	1.3	1.2	864	182	304	96	.1	25	0	1.0
16	.7	6.3	1.2	1.1	461	205	290	38	.1	5.2	0	.1
17	.4	2.6	1.3	1.1	3,630	85	54	15	8.3	1.7	0	.6
18	.4	.9	1.6	1.3	4,040	48	34	9.0	*1.1	.8	0	2.7
19	.4	2.6	1.6	3.3	318	39	26	6.0	.5	.6	0	1.8
20	.4	1.8	1.4	2.4	105	31	21	4.6	.4	.5	13	1.0
21	.2	1.2	1.3	1.8	56	26	18	3.8	.3	.4	6.1	.2
22	.1	.8	1.3	1.7	41	22	16	3.0	1.2	.4	.8	0
23	.1	1.0	*1.6	1.7	34	19	14	*2.2	1.0	.2	.4	0
24	*0	.8	1.3	1.7	683	17	13	2.0	.4	40	.2	0
25	0	.9	1.2	1.7	243	16	12	1.8	.1	11	0	0
26	0	.5	1.2	1.7	68	*14	10	2.4	.1	1.7	0	0
27	0	.7	1.6	1.6	*43	14	9.5	2.4	.1	.6	0	0
28	0	.9	1.4	2.0	32	23	8.0	3.0	0	.2	0	0
29	.7	.6	1.1	2,220	26	16	10	3.4	0	.2	0	0
30	.7	*.6	1.3	3,470	-------	13	14	1.7	0	.2	0	0
31	.5	-------	1.3	126	-------	12	-------	1.2	-------	*0	0	-------
Total	68.7	39.6	55.2	5,857.8	17,776	3,262	4,137.5	628.0	21.9	193.5	268.4	8.3
Mean	2.22	1.32	1.78	189	613	105	138	20.3	0.73	6.24	8.66	0.28
Cfsm	0.025	0.015	0.020	2.11	6.83	1.17	1.54	0.226	0.0081	0.070	0.097	0.0031
In.	0.03	0.02	0.02	2.43	7.37	1.35	1.72	0.26	0.009	0.08	0.11	0.003

Calendar year 1955: Max 3,440 Min 0 Mean 74.0 Cfsm 0.825 In. 11.20
Water year 1955-56: Max 4,040 Min 0 Mean 88.3 Cfsm 0.984 In. 13.40

Peak discharge (base, 3,000 cfs).--Jan. 30 (4:30 a.m.) 4,980 cfs (11.44 ft); Feb. 2 (10 a.m.) 4,210 cfs (11.04 ft); Feb. 18 (12:30 a.m.) 7,900 cfs (12.60 ft); Mar. 14 (9 a.m.) 3,310 cfs (10.52 ft).

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

East Fork Clarks River near Benton, Ky.

Location.--Lat 36°52'24", long 88°20'48", on downstream side of right pier of bridge on U. S. Highway 641 (renumbered) and State Highway 58 (renumbered), 1 mile north of Benton, Marshall County, and 6.8 miles upstream from Middle Fork Creek.

Drainage area.--227 sq mi.

Records available.--May 1938 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 344.52 ft above mean sea level, datum of 1929 (Tennessee Valley Authority benchmark). Prior to Sept. 10, 1951, wire-weight gage at same site and datum.

Average discharge.--18 years, 274 cfs.

Extremes.--Maximum discharge during year, 13,400 cfs Feb. 18 (gage height, 15.04 ft); minimum, 3.2 cfs Sept. 23.
1938-56: Maximum discharge, 27,600 cfs Mar. 22, 1952 (gage height, 16.68 ft), from rating curve extended above 14,000 cfs; minimum observed, 1.8 cfs Aug. 9, 1948.
Maximum stage known, 17.8 ft in February 1937, from floodmarks.

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

Revisions (water years).--WSP 923: Drainage area. WSP 1143: 1938-47. WSP 1206: 1949(M).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 20 to Jan. 26, May 4-7)

2.2	3.0	5.0	190
2.4	7.5	10.0	755
2.6	14	11.5	1,140
3.0	32	12.0	1,480
3.5	56	12.5	2,500
4.0	93	14.2	8,600

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	138	13	18	18	a2,000	118	a55	51	18	a9	7.8	5.2
2	34	14	23	18	a500	109	a130	120	15	a8	178	5.0
3	19	14	76	18	*6,900	98	a120	292	14	a7	65	4.8
4	13	28	72	18	4,350	83	a750	*135	14	a10	54	4.6
5	10	21	60	17	829	73	a440	84	13	a40	52	4.4
6	8.8	17	46	17	465	70	a220	62	12	a100	24	4.2
7	9.5	14	38	17	399	485	a320	55	11	a50	16	a4.2
8	8.2	*12	33	16	242	545	a260	a50	11	a20	12	a4.2
9	7.2	12	30	16	419	204	*a135	a40	10	a10	10	a4.2
10	6.8	11	27	16	354	126	445	a35	10	a8	9.8	a4.2
11	6.5	11	24	16	345	98	1,540	a30	9.5	a7	9.2	a4.2
12	11	11	23	*16	343	115	1,880	a25	8.5	*9.2	7.8	a4.2
13	280	11	22	16	225	206	436	a20	8.2	176	7.5	a4.2
14	78	10	22	16	202	2,080	226	a50	7.5	68	7.0	a4
15	37	10	21	16	538	3,280	741	a200	7.2	133	6.5	a4
16	24	78	20	16	990	1,390	1,200	a400	7.5	48	6.2	a4
17	18	86	19	16	1,190	570	548	a100	7.5	31	6.0	a4
18	15	36	21	16	8,200	310	248	a60	11	19	6.0	a4
19	13	38	21	21	7,280	221	171	a45	*14	14	6.0	a4
20	12	42	19	25	1,920	175	129	a40	74	12	27	a4
21	11	34	18	30	385	143	104	a35	42	10	96	*5.2
22	11	28	18	28	239	118	88	a30	126	8.8	36	3.8
23	10	27	*19	27	186	103	75	a25	30	7.8	*18	3.6
24	*9.8	26	19	25	422	88	69	*23	16	81	12	4.0
25	9.2	24	19	24	1,140	77	63	21	16	125	9.8	3.8
26	8.8	24	19	24	578	*72	58	22	a25	41	8.2	3.8
27	8.5	22	18	a30	*276	66	54	22	a60	23	7.2	3.8
28	9.2	21	17	a40	195	108	50	26	a30	15	6.5	3.8
29	9.8	19	17	a1,000	145	116	52	22	a10	12	6.0	4.0
30	8.5	*18	18	a6,000	-------	73	54	20	a9	9.8	6.0	4.0
31	12	-------	18	a5,000	-------	a60	-------	21	-------	*9.2	5.5	-------
Total	856.8	732	835	12,573	41,257	11,380	10,661	2,161	646.9	1,121.8	729.0	125.4
Mean	27.6	24.4	26.9	406	1,423	367	355	69.7	21.6	36.2	23.5	4.18
Cfsm	0.122	0.107	0.119	1.79	6.27	1.62	1.56	0.307	0.095	0.159	0.104	0.018
In.	0.14	0.12	0.14	2.06	6.76	1.86	1.75	0.35	0.11	0.18	0.12	0.02

Calendar year 1955: Max 6,700 Min 3.4 Mean 229 Cfsm 1.01 In. 13.71
Water year 1955-56: Max 8,200 Min 3.6 Mean 227 Cfsm 1.00 In. 13.61

Peak discharge (base, 4,400 cfs).--Jan. 30 or 31 (time unknown) about 7,000 cfs; Feb. 3 (time unknown) 7,460 cfs (13.94 ft); Feb. 18 (6 to 7 p.m.) 13,400 cfs (15.04 ft).

* Discharge measurement made on this day.

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

Reservoirs in Tennessee River basin

Douglas Lake.--Lat 35°57'40", long 83°32'20", at Douglas Dam on French Broad River, 6½ miles north of Sevierville, Sevier County, Tenn., and at mile 32.3. Drainage area, 4,541 sq mi. Records available, February 1943 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 662,200 cfs-days May 13 (elevation, 995.32 ft); minimum, 1,000 cfs-days Jan. 16 (elevation, 883.7 ft, estimated). Maximum contents during period 1943-56, 760,000 cfs-days July 25, 1949 (elevation, 1,001.79 ft); minimum (after first filling), that of Jan. 16, 1956.

Reservoir formed by concrete main dam and 10 saddle dams. Spillway equipped with 11 taintor gates, 32 ft high by 40 ft wide and 8 sluice gates 10 ft high by 5.67 ft wide. Closure of dam was made Feb. 19, 1943, water in reservoir first reached minimum pool elevation Feb. 25, 1943. Total capacity at elevation 1,002.00 ft (top of gates) is 763,400 cfs-days, of which 715,800 cfs-days is controlled storage above elevation 920.00 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Revisions (water years).--WSP 1276: 1948.

South Holston Lake.--Lat 36°31'15", long 82°05'11", 470 ft upstream from South Holston Dam on South Fork Holston River in Sullivan County, Tenn., 7.0 miles southeast of Bristol, Virginia-Tennessee, and at mile 49.8. Drainage area, 703 sq mi. Records available, November 1950 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to May 11, 1951, staff gage at same site and datum. Maximum contents during year, 267,100 cfs-days May 21 (elevation, 1,713.61 ft); minimum, 57,700 cfs-days Jan. 13 (elevation, 1,614.15 ft). Maximum contents during period 1950-56, 293,800 cfs-days Apr. 14, 1952 (elevation, 1,721.40 ft); minimum (after first filling), that of Jan. 13, 1956.

Reservoir is formed by rock and rolled earth-fill dam. Spillway is uncontrolled morning-glory type, 128 ft in diameter with 6 piers 3 ft wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft in diameter. Closure of dam was made Nov. 20, 1950; water in reservoir first reached minimum pool elevation Jan. 25, 1951. Total capacity at elevation 1,742.00 ft (spillway crest) is 375,100 cfs-days, of which 315,200 cfs-days is controlled storage above elevation 1,616.00 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Watauga Lake.--Lat 36°19'20", long 82°07'16", at Watauga Dam on Watauga River, 5 miles east of Elizabethton, Carter County, Tenn., and at mile 36.7. Drainage area, 468 sq mi. Records available, December 1948 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 190,100 cfs-days July 30 (elevation, 1,925.25 ft); minimum, 25,100 cfs-days Jan. 13 (elevation, 1,813.47 ft). Maximum contents during period 1948-56, 285,900 cfs-days June 24, 1950 (elevation, 1,958.58 ft); minimum (after first filling), that of Jan. 13, 1956.

Reservoir is formed by rock and rolled earth-fill dam. Spillway is uncontrolled morning-glory type, 128 ft in diameter with 6 piers 3 ft wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft in diameter. Closure of dam was made Dec. 1, 1948; water in reservoir first reached minimum pool elevation Dec. 31, 1948. Total capacity at elevation 1,975.00 ft (spillway crest) is 342,200 cfs-days, of which 316,200 cfs-days is controlled storage above elevation 1,815.00 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Boone Lake.--Lat 36°26'26", long 82°26'16", at Boone Dam on South Fork Holston River in Sullivan County, Tenn., 0.7 mile northeast of Spurgeon, Washington County, Tenn., 1.3 miles downstream from Watauga River, and at mile 18.6. Drainage area, 1,840 sq mi. Records available, December 1952 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 93,300 cfs-days July 17 (elevation, 1,382.32 ft); minimum, 21,300 cfs-days Jan. 23 (elevation, 1,327.06 ft). Maximum contents during period 1952-56, 98,100 cfs-days June 10, 1953 (elevation, 1,384.52 ft); minimum (after first filling), that of Jan. 23, 1956.

Reservoir is formed by gravity nonoverflow type concrete dam. Spillway equipped with 5 radial gates, 35 ft high by 35 ft wide. Storage began Dec. 16, 1952; water in reservoir first reached minimum pool elevation Jan. 5, 1953. Total capacity at elevation 1,385.0 ft (top of gates) is 99,200 cfs-days, of which 75,700 cfs-days is controlled storage above elevation 1,330 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Fort Patrick Henry Lake.--Lat 36°29'53", long 82°30'32", at Fort Patrick Henry Dam on South Fork of Holston River, 0.2 mile upstream from bridge on U. S. Highway 23, 4.5 miles southeast of Kingsport, Sullivan County, Tenn., and at mile 8.2. Drainage area, 1,903 sq mi. Records available, October 1953 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 13,600 cfs-days July 22 (elevation, 1,262.88 ft); minimum, 11,500 cfs-days Oct. 7 (elevation, 1,258.05 ft). Maximum contents during period 1953-56, 14,000 cfs-days Feb. 11, 1954 (elevation, 1,263.80 ft); minimum (after first filling) 9,300 cfs-days Mar. 16, 1954 (elevation, 1,252.32 ft).

Reservoir is formed by gravity nonoverflow type concrete dam. Spillway equipped with 5 radial gates, 35 ft high by 35 ft wide. Storage began Oct. 27, 1953; water in reservoir first reached minimum pool elevation Dec. 8, 1953. Total capacity at elevation 1,263 ft (top of gates) is 13,700 cfs-days, of which 1,700 cfs-days is controlled storage above elevation 1,258 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Reservoirs in Tennessee River basin--Continued

Cherokee Lake.--Lat 36°10'00", long 83°29'55", at Cherokee Dam on Holston River, 0.3 mile upstream from bridge on State Highway 92, 2.7 miles upstream from Mill Spring Creek, 2.8 miles north of Jefferson City, Jefferson County, Tenn., and at mile 52.3. Drainage area, 3,429 sq mi. Records available, December 1941 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 689,700 cfs-days May 15 (elevation, 1,068.33 ft); minimum, 49,300 cfs-days Jan. 12 (elevation, 981.15 ft). Maximum contents during period 1941-56, 779,400 cfs-days May 11, 1944 (elevation, 1,074.37 ft); minimum (after first filling) 48,400 cfs-days Jan. 7, 1954 (elevation, 980.77 ft).

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with 9 radial gates 32 ft high by 40 ft wide. Storage began Dec. 5, 1941; water in reservoir first reached minimum pool elevation Jan. 6, 1942. Total capacity at elevation 1,075.0 ft (top of gates) is 789,200 cfs-days, of which 742,700 cfs-days is controlled storage above elevation 980.0 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Fort Loudoun Lake.--Lat 35°47'30", long 84°14'35", at Fort Loudoun Dam on Tennessee River, 1 mile northeast of Lenoir City, Loudon County, Tenn., and at mile 602.3. Drainage area, 9,550 sq mi. Records available, July 1943 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum 12 p.m. contents during year, 190,000 cfs-days Apr. 17; maximum elevation, 814.62 ft Apr. 18; minimum 12 p.m. contents, 139,000 cfs-days Jan. 10; minimum elevation, 806.74 ft Jan. 10. Maximum elevation during period 1943-56, 815.00 ft Sept. 11, 1943, May 14, 1945, minimum (after first filling), 805.54 ft Jan. 18, 1954. Contents based on backwater profile.

Reservoir formed by concrete dam with earth embankment. Spillway equipped with 14 taintor gates 32 ft high by 40 ft wide. Closure of dam was made Aug. 2, 1943; water in reservoir first reached ordinary minimum pool elevation Sept. 4, 1943. Total level pool capacity at elevation 815.00 ft (top of gates) is 194,900 cfs-days, of which 55,100 cfs-days is controlled flood storage above elevation 807.00 ft (minimum navigation pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Nantahala Lake.--Lat 35°11'56", long 83°39'17", at Nantahala Dam on Nantahala River, 4.2 miles southeast of Topton, Cherokee County, N. C., 5.5 miles upstream from Whiteoak Creek, and at mile 22.8. Drainage area, 91.0 sq mi. Records available, October 1944 to September 1956. Gage, water-stage recorder. Datum of gage is a local datum which is 122.16 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 51,700 cfs-days Aug. 27 (elevation, 2,865.22 ft); minimum, 8,600 cfs-days Jan. 18 (elevation, 2,768.56 ft). Maximum contents during period 1944-56, 70,200 cfs-days Jan. 19, 1950, Mar. 14, 1952 (elevation, 2,890.29 ft); minimum, 6,700 cfs-days Jan. 28, 1955 (elevation, 2,760.11 ft).

Reservoir is formed by rock-fill dam with side channel gate-controlled spillway supplemented by fuse-plug dam. Dam completed and storage began Jan. 30, 1942; water in reservoir first reached minimum pool elevation Feb. 16, 1942. Total capacity at elevation 2,890.0 ft (top of gates) is 69,900 cfs-days, of which 63,300 cfs-days is controlled storage above 2,760.0 ft (minimum pool). Reservoir is used for flood control and power. Gage-height record furnished by the Aluminum Co. of America; level storage records furnished by Tennessee Valley Authority.

Thorpe Lake.--Lat 35°11'57", long 83°09'15", at Thorpe Dam on West Fork Tuckasegee River, 2.3 miles northwest of Glenville, Jackson County, N. C., 3.0 miles upstream from Shoal Creek, and at mile 9.7. Drainage area, 36.7 sq mi. Records available, October 1944 to September 1956. Prior to October 1948, published as Glenville Reservoir. Gage, water-stage recorder. Datum of gage is a local datum which is 391.75 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 19,900 cfs-days Sept. 4 (elevation, 3,075.45 ft); minimum, 2,200 cfs-days Jan. 13 (elevation, 3,025.30 ft). Maximum contents during period 1944-56, 35,700 cfs-days Mar. 13, 1950 (elevation, 3,100.01 ft); minimum, 2,200 cfs-days Feb. 5, 1955, Jan. 13, 1956; minimum elevation, 3,025.10 ft Feb. 5, 1955.

Reservoir is formed by earth and rock dam and six 40-foot fuse-plug dams. Side channel spillway equipped with 2 taintor gates 12 ft high by 25 ft wide. Dam completed and storage began Feb. 12, 1941. Water in reservoir first reached minimum pool elevation Mar. 15, 1941. Total capacity at elevation 3,100.0 ft (top of gates) is 35,700 cfs-days, of which 33,600 cfs-days is controlled storage above elevation 3,025.0 ft (minimum pool). Reservoir is used for flood control and power. Gage-height record furnished by Aluminum Co. of America; level storage records furnished by Tennessee Valley Authority.

Fontana Lake.--Lat 35°27'07", long 83°48'18", at Fontana Dam on Little Tennessee River, 5.7 miles upstream from Twenty Mile Creek, 9.0 miles north of Robbinsville, Graham County, N. C., 9.5 miles upstream from Cheoah Dam, and at mile 61.0. Drainage area, 1,571 sq mi. Records available, November 1944 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 635,600 cfs-days July 27 (elevation, 1,691.76 ft); minimum, 95,200 cfs-days Jan. 23 (elevation, 1,487.6 ft). Maximum contents during period 1944-56, 722,300 cfs-days July 23, 1949 (elevation, 1,708.91 ft); minimum (after first filling), 78,300 cfs-days Jan. 29, 1955 (elevation, 1,472.0 ft).

Reservoir is formed by gravity nonoverflow type concrete dam. Spillway equipped with 4 radial gates 35 ft high by 35 ft wide. Storage began Nov. 7, 1944; dam completed March 1945; water in reservoir first reached minimum pool elevation Jan. 16, 1945. Total capacity at elevation 1,710.0 (top of gates) is 728,200 cfs-days, of which 583,500 cfs-days is controlled storage above elevation 1,525.0 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Reservoirs in Tennessee River basin--Continued

Santeetlah Lake.--Lat 35°22'38", long 83°52'33", at Santeetlah Dam on Cheoah River, 1 mile downstream from Santeetlah Creek, 5.5 miles northwest of Robbinsville, Graham County, N. C., and at mile 9.3. Drainage area, 176 sq mi. Records available, October 1946 to September 1956. Gage, water-stage recorder. Datum of gage is a local datum which is 122.92 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 57,300 cfs-days Apr. 21 (elevation, 1,799.71 ft); minimum, 14,500 cfs-days Jan. 13 (elevation, 1,744.56 ft). Maximum contents during period 1946-56, 80,100 cfs-days Feb. 4, 1949 (elevation, 1,817.19 ft); minimum, that of Jan. 13, 1956.

Reservoir is formed by concrete gravity and arch dam with concrete spillway controlled by 6 taintor gates 12 ft high by 25 ft wide. Dam completed and storage began Dec. 7, 1927. Water in reservoir first reached minimum pool elevation December 1927. Total capacity at elevation 1,817.00 ft (top of gates) is 79,800 cfs-days, of which 67,200 cfs-days is controlled storage above 1,740.08 ft (minimum pool). Reservoir is used for power. Gage-height record furnished by Aluminum Co. of America; level storage records furnished by Tennessee Valley Authority.

Norris Lake.--Lat 36°13'29", long 84°05'29", at Norris Dam on Clinch River, 2½ miles northwest of Norris, Anderson County, Tenn., and at mile 79.8. Drainage area, 2,912 sq mi. Records available, June 1935 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, adjustment of 1912, and 0.11 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Elevations given herein are referred to adjustment of 1912. Maximum contents during year, 1,002,500 cfs-days May 13 (elevation, 1,018.25 ft); minimum, 75,500 cfs-days Jan. 24 (elevation, 909.35 ft). Maximum contents during period 1935-56, 1,236,700 cfs-days Feb. 11, 1937 (elevation, 1,031.10 ft); minimum (after first filling), that of Jan. 24, 1956.

Reservoir is formed by concrete gravity dam with 3 drum gates 100 ft wide by 14 ft high. Some storage began in June 1935; dam was completely closed and placed in operation Mar. 4, 1936; water in reservoir first reached minimum pool elevation Mar. 24, 1936. Total capacity at elevation 1,034.0 ft (top of gates) is 1,294,200 cfs-days, of which 1,150,000 cfs-days is controlled storage above elevation 930.00 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Watts Bar Lake.--Lat 35°37'13", long 84°47'00", at Watts Bar Dam on Tennessee River, 6.5 miles southeast of Spring City, Rhea County, Tenn., 72.4 miles downstream from Fort Loudoun Dam, and at mile 529.9. Drainage area, 17,310 sq mi. Records available, October 1941 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum 12 p.m. contents during year, 531,000 cfs-days Apr. 16; maximum elevation, 743.46 ft Apr. 17; minimum 12 p.m. contents, 383,000 cfs-days Jan. 11; minimum elevation, 735.00 ft Jan. 11. Maximum elevation during period 1941-56, 745.12 ft Mar. 9, 1942; minimum (after first filling), 733.44 ft Mar. 20, 1945. Contents based on backwater profile.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with 20 taintor gates 32 ft high by 40 ft wide, also one 2-section leaf trashway gate 16.3 ft high by 24 ft wide. Storage began with partial closure Dec. 12, 1941, and final closure Jan. 1, 1942; water in reservoir first reached minimum navigation pool elevation Feb. 17, 1942. Total level pool capacity at elevation 745.0 ft (top of gates) is 570,700 cfs-days, of which 190,400 cfs-days is controlled flood storage above elevation 735.0 ft (minimum navigation pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Chatuge Lake.--Lat 35°01'01", long 83°47'28", at Chatuge Dam on Hiwassee River, 2.0 miles upstream from Hyatt Mill Creek, 2.5 miles downstream from Georgia-North Carolina State line, 2.5 miles southeast of Hayesville, Clay County, N. C., and at mile 121.0. Drainage area, 189 sq mi. Records available, February 1942 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 75,500 cfs-days May 15 (elevation, 1,911.55 ft); minimum, 9,400 cfs-days Jan. 27 (elevation, 1,860.13 ft). Maximum contents during period 1942-56, 124,200 cfs-days Apr. 20, 1943 (elevation, 1,927.80 ft); minimum (after first filling), 9,400 cfs-days Sept. 5, 1947, Jan. 27, 1956; minimum elevation, 1,860.11 ft Sept. 5, 1947.

Reservoir is formed by a rolled earth-fill dam with side channel spillway equipped with flashboards. Storage began Feb. 12, 1942; water in reservoir first reached minimum pool elevation Feb. 26, 1942. Total capacity at elevation 1,928.0 ft (top of flashboards) is 124,900 cfs-days, of which 115,600 cfs-days is controlled storage above elevation 1,860.0 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Nottely Lake.--Lat 34°57'29", long 84°05'22", at Nottely Dam on Nottely River, 1.3 miles upstream from Dooley Creek, 1.8 miles west of Ivylog, Union County, Ga., 2.5 miles upstream from Georgia-North Carolina State line, and at mile 21.0. Drainage area, 214 sq mi. Records available, January 1942 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 84,200 cfs-days Oct. 8 (elevation, 1,775.76 ft); minimum, 19,900 cfs-days Aug. 18 (elevation, 1,720.55 ft). Maximum contents during period 1942-56, 94,100 cfs-days Apr. 20, 1943 (elevation, 1,780.50 ft); minimum (after first filling), 200 cfs-days Oct. 6, 1947 (elevation, 1,638.6 ft).

Reservoir is formed by rock and rolled earth-fill dam with side channel spillway equipped with flashboards. Storage began Jan. 24, 1942; water in reservoir first reached minimum pool elevation Jan. 26, 1942. Total capacity at elevation 1,780.00 ft (top of flashboards) is 93,000 cfs-days, of which 92,800 cfs-days is controlled storage above elevation 1,640.00 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Reservoirs in Tennessee River basin--Continued

Hiwassee Lake.--Lat 35°09'05", long 84°10'40", at Hiwassee Dam on Hiwassee River, a third of a mile northwest of village of Hiwassee Dam, Cherokee County, N. C., 3.9 miles upstream from Shoal Creek, and at mile 75.8. Drainage area, 968 sq mi. Records available, October 1939 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, preliminary adjustment of 1929. Subtract 0.63 ft from all elevations to reduce to datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 205,100 cfs-days June 15 (elevation, 1,521.38 ft); minimum, 37,600 cfs-days Jan. 14 (elevation, 1,415.86 ft). Maximum contents during period 1939-56, 220,700 cfs-days Apr. 24, 1944 (elevation, 1,526.48 ft); minimum (after first filling), 35,800 cfs-days Jan. 28, 1948 (elevation, 1,413.41 ft).

Reservoir is formed by gravity overflow concrete dam with 7 taintor gates 23 ft high by 32 ft long. Slight storage began Apr. 13, 1939, during construction; systematic storage operation began Jan. 14, 1940; dam completed February 1940; water in reservoir first reached minimum pool elevation Feb. 23, 1940. Total capacity at elevation 1,526.5 ft (top of gates) is 220,800 cfs-days, of which 183,800 cfs-days is controlled storage above elevation 1,415.0 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Apalachia Lake.--Lat 35°10'04", long 84°17'49", at Apalachia Dam on Hiwassee River in Cherokee County, N. C., 0.1 mile upstream from North Carolina-Tennessee State line, 1.5 miles northeast of Farner, Polk County, Tenn., 9.8 miles downstream from Hiwassee Dam, and at mile 66.1. Drainage area, 1,018 sq mi. Records available, February 1943 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 29,500 cfs-days Feb. 29 (elevation, 1,279.99 ft); minimum, 23,000 cfs-days Oct. 1 (elevation, 1,267.85 ft). Maximum contents during period 1943-56, 30,300 cfs-days June 13, 1952 (elevation, 1,281.40 ft); minimum (after first filling), 15,700 cfs-days Aug. 28, 1955 (elevation, 1,251.73 ft).

Reservoir is formed by concrete gravity dam. Spillway equipped with 10 radial gates. Storage began Feb. 14, 1943; water in reservoir first reached minimum pool elevation Feb. 21, 1943. Total capacity at elevation 1,280.00 ft (top of gates) is 29,500 cfs-days, of which 18,000 cfs-days is controlled storage above elevation 1,240.00 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Blue Ridge Lake.--Lat 34°52'52", long 84°16'49", 400 ft upstream from Blue Ridge Dam on Toccoa River, 2½ miles northeast of Blue Ridge, Fannin County, Ga., and at mile 53.0. Drainage area, 232 sq mi. Records available, December 1930 to September 1956. Gage, water-stage recorder. To convert elevations given herein to datum of 1929, supplementary adjustment of 1936, 0.18 ft should be subtracted. Maximum contents during year, 96,200 cfs-days May 21 (elevation, 1,687.91 ft); minimum, 6,500 cfs-days Jan. 16 (elevation, 1,587.75 ft). Maximum 12 p.m. contents during period 1930-56, 100,900 cfs-days Feb. 11, 1946 (elevation, 1,690.83 ft); minimum (after first filling), that of Jan. 16, 1956.

Reservoir is formed by earth dam. Spillway equipped with 5 taintor gates 15 ft high by 22 ft wide. Dam completed and storage began Dec. 6, 1930. Total capacity at elevation 1,690.0 ft (top of gates) is 99,600 cfs-days, of which 92,300 cfs-days is controlled storage above elevation 1,590.0 ft (minimum pool). Reservoir is used for power. Records furnished by Tennessee Valley Authority.

Ocoee No. 3 Lake.--Lat 35°02'25", long 84°28'00", at Ocoee No. 3 Dam on Ocoee River, 5 miles west of Ducktown, Polk County, Tenn., and at mile 29.2. Drainage area, 496 sq mi. Records available, October 1942 to September 1956. Gage, water-stage recorder. Datum of gage is 1,410.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1936; gage readings have been adjusted to mean sea level. Maximum contents during year, 4,500 cfs-days July 4 (elevation, 1,435.51 ft); minimum, 1,500 cfs-days Dec. 26 (elevation, 1,413.72 ft). Maximum contents during period 1942-56, 7,800 cfs-days Jan. 8, 1946 (elevation, 1,436.7 ft, estimated); minimum 12 p.m. contents (after first filling), 1,100 cfs-days Apr. 3, 1943 (elevation, 1,394.95 ft).

Reservoir is formed by concrete dam. Spillway with crest at elevation 1,412.00 ft equipped with 7 taintor gates 23 ft high by 32 ft wide. Storage began Aug. 15, 1942; water in reservoir first reached minimum pool elevation Dec. 28, 1942. Capacity of reservoir has been considerably reduced by silting; revised capacity tables used after Sept. 30, 1946, and after Dec. 31, 1953. Total capacity at elevation, 1,435.00 ft (top of gates) is 4,400 cfs-days, of which 3,000 cfs-days is controlled storage above elevation 1,413.00 ft (minimum pool). Reservoir is used for power. Records furnished by Tennessee Valley Authority.

Parksville Lake.--Lat 35°05'44", long 84°38'51", at Parksville Dam on Ocoee River at Parksville, Polk County, Tenn., 13¾ miles east of Cleveland, and at mile 11.9. Drainage area, 595 sq mi. Records available, June 1914 to September 1956. Prior to October 1953, published as "Parksville (Ocoee No. 1) Reservoir." Indicator gage. Datum of gage is 6.89 ft (revised) above mean sea level, datum of 1929, supplementary adjustment of 1936. Gage readings have been reduced to elevations above mean sea level. Maximum contents during year, 44,300 cfs-days Apr. 16 (elevation, 838.1 ft); minimum, 27,300 cfs-days Jan. 27 (elevation, 817.7 ft). Maximum 12 p.m. contents during period 1914-56, 53,300 cfs-days July 9, 1916; maximum 12 p.m. elevation, 840.2 ft (revised) Feb. 10, 1946; minimum contents, that of Jan. 27, 1956; minimum 12 p.m. elevation, 814.8 ft (revised) Dec. 14, 1934

Reservoir is formed by concrete dam with 347 ft of spillway. Spillway is equipped with 4 floodgates 7 ft high by 20 ft wide and 265 ft of flashboards about 5 2/3 ft high. Crest of spillway is 1.0 ft lower under gates. Dam completed and storage began in 1911. Capacity of reservoir has been considerably reduced by silting; revised capacity table used after Oct. 31, 1952. Total capacity at elevation 837.55 ft, revised (about top of flashboards), is 43,700 cfs-days, of which 16,900 cfs-days is controlled storage above elevation 816.9 ft, revised (minimum pool). Reservoir is used for power. Records furnished by Tennessee Valley Authority.

Reservoirs in Tennessee River basin--Continued

Chickamauga Lake.--Lat 35°06'07", long 85°13'42", at Chickamauga Dam on Tennessee River, 5⅞ miles northeast of Chattanooga, Hamilton County, Tenn., 58.9 miles downstream from Watts Bar Dam, and at mile 471.0. Drainage area, 20,790 sq mi. Records available, October 1939 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929. Maximum 12 p.m. contents during year, 344,000 cfs-days Apr. 19; maximum elevation, 684.85 ft Apr. 19; minimum 12 p.m. contents, 193,000 cfs-days Dec. 16; minimum elevation, 674.68 ft Jan. 4. Maximum elevation during period 1939-56, 685.37 ft May 20, 1950; minimum (after first filling), 673.27 ft Jan. 21, 1942. Contents based on backwater profile.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with eighteen 2-section lift gates 40.44 ft high by 40 ft wide. Storage began Feb. 6, 1940; water in reservoir first reached minimum navigation pool elevation Mar. 10, 1940. Total level pool capacity at elevation 685.44 ft (top of gates) is 355,600 cfs-days, of which 166,100 cfs-days is controlled flood storage above elevation 675.0 ft (minimum navigation pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Hales Bar Lake.--Lat 35°02'48", long 85°22'19", at Hales Bar Dam on Tennessee River, 5¼ miles southeast of Jasper, Marion County, Tenn., 8.5 miles upstream from Sequatchie River, 39.9 miles downstream from Chickamauga Dam, and at mile 431.1. Drainage area, 21,790 sq mi. Records available, October 1914 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum 12 p.m. contents during year, 103,000 cfs-days Feb. 4; maximum elevation, 634.72 ft Nov. 24; minimum 12 p.m. contents, 68,000 cfs-days Jan. 19; minimum elevation, 631.63 ft Dec. 31. Maximum elevation during period 1914-56, 642.8 ft Mar. 8, 1917; minimum (after first filling) 619.0 ft Apr. 16, 1918. Contents based on backwater profile.

Reservoir is formed by concrete dam with earth embankments containing concrete core walls. Spillway with crest at 616.0 ft equipped with 17 taintor gates 19 ft high by 40 ft wide, and 1 trash gate 5.5 ft high by 15 ft wide (prior to July 1948 spillway, with crest elevation at 626.25 ft, equipped with flashboards 3 ft high prior to July 1944 and 5 ft high thereafter). Dam completed and storage began Oct. 13, 1913. Capacity of reservoir has been considerably reduced by silting. Total level pool capacity at elevation 634.0 ft (maximum allowable pool) is 77,800 cfs-days, of which 6,600 cfs-days is controlled flood storage above elevation 632.0 ft (minimum navigation pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Guntersville Lake.--Lat 34°25'17", long 86°23'34", in powerhouse at Guntersville Dam on Tennessee River in sec. 14, T. 7 S., R. 2 E., 11 miles northwest of Guntersville, Ala., 82.1 miles downstream from Hales Bar Dam, and at mile 349.0. Drainage area, 24,450 sq mi. Records available, October 1938 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929. Maximum 12 p.m. contents during year, 569,000 cfs-days Feb. 4; maximum elevation, 595.39 ft Apr. 17; minimum 12 p.m. contents, 434,000 cfs-days Sept. 7; minimum elevation, 592.39 ft Feb. 25. Maximum elevation during period 1939-56, 596.29 ft Mar. 2, 1944; minimum (after start of operation plan in April 1940), 591.65 ft Sept. 8, 1953. Contents based on backwater profile.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with eighteen 2-section lift gates 40.44 ft high by 50 ft wide. Dam completed and storage began Jan. 16, 1939; water in reservoir first reached minimum navigation pool elevation Jan. 27, 1939. Total level pool capacity at elevation 595.44 ft (top of gates) is 513,600 cfs-days, of which 82,100 cfs-days is controlled flood storage above elevation 593.0 ft (minimum navigation pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Woods Reservoir.--Lat 35°17'54", long 86°05'48", at Elk River Dam on Elk River, 1.2 miles upstream from Spring Creek, 2½ miles northeast of Estill Springs, Franklin County, Tenn., and 6.8 miles upstream from bridge on U. S. Highway 41A. Drainage area, 263 sq mi. Records available, May 1952 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Maximum contents during year, 42,300 cfs-days Apr. 21, 22 (elevation, 960.98 ft); minimum, 28,900 cfs-days Nov. 25, 26 (elevation, 953.65 ft). Maximum contents during period 1952-56, that of Apr. 21, 22, 1956; minimum (after first filling), 26,300 cfs-days Nov. 8-11, 1953 (elevation, 951.93 ft).

Reservoir is formed by concrete gravity and earth-fill type dam with riprapped embankments. Spillway equipped with 3 taintor gates 25 ft high by 50 ft wide and 2 sluice gates 6 ft high by 4 ft wide. Closure of dam was made May 1, 1952; water in reservoir first reached minimum pool elevation Feb. 6, 1953. Total capacity at elevation 962.0 ft (surcharge pool) is 44,400 cfs-days of which 9,900 cfs-days is controlled storage above elevation 957.0 ft (minimum pool). Reservoir is used for cooling water, flood control, and recreational purposes. Records furnished by United States Air Force.

Wheeler Lake.--Lat 34°47'52", long 87°22'51", at Wheeler Dam on Tennessee River, in SW¼ sec. 9, T. 3 S., R. 8 W., 0.8 mile (revised) upstream from Big Nance Creek, 30.1 miles (revised) downstream from Decatur, Ala., 74.1 miles downstream from Guntersville Dam, and at mile 274.9. Drainage area, 29,590 sq mi. Records available, October 1936 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929. Maximum 12 p.m. contents during year, 618,000 cfs-days Feb. 6; maximum elevation, 556.39 ft Apr. 18; minimum 12 p.m. contents, 409,000 cfs-days Dec. 25; minimum elevation, 549.77 ft Jan. 10. Maximum elevation during period 1936-56, 557.32 ft Mar. 1, 1944; minimum (after start of operation plan in August 1937), 548.92 ft Nov. 1, 1937. Contents based on backwater profile.

Reservoir is formed by concrete dam with 60 taintor gates 15 ft high by 40 ft wide and 2 trashway gates 6 ft high by 37.5 ft wide. Storage began Oct. 3, 1936; water in reservoir first reached minimum pool elevation Dec. 10, 1936. Total level pool capacity at elevation 556.28 ft (top of gates) is 580,000 cfs-days of which 175,200 cfs-days is controlled flood storage above elevation 550.0 ft (ordinary minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Reservoirs in Tennessee River basin--Continued

Wilson Lake.--Lat 34°47'46", long 87°37'27", in SE¼ sec. 18, T. 3 S., R. 10 W., at cooling-water intake at Wilson Dam on Tennessee River, 2.9 miles southeast of Florence, Ala., 4.1 miles upstream from Cypress Creek, 15.5 miles downstream from Wheeler Dam, and at mile 259.4. Drainage area, 30,750 sq mi. Records available, August 1926 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929. Maximum contents during year, 327,600 cfs-days Apr. 20 (elevation, 507.87 ft); minimum, 298,400 cfs-days Dec. 23 (elevation, 504.16 ft). Maximum contents during period 1926-56, 329,200 cfs-days Apr. 20, 1954 (elevation, 508.07 ft); maximum elevation, 508.35 ft Feb. 11, 1948; minimum contents, 233,200 cfs-days, Apr. 6, 1927 (elevation, 501.3 ft).

Reservoir is formed by concrete gravity dam with fixed ogee crest. Spillway equipped with 58 Stoney gates 20.54 ft (18.77 ft prior to June 1941) high by 38 ft wide. Storage began Apr. 14, 1924. Revised capacity table used after Dec. 31, 1953. Total capacity at elevation 507.88 ft (top of gates) is 327,700 cfs-days of which 26,700 cfs-days is controlled storage above elevation 504.50 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Pickwick Lake.--Lat 35°04'16", long 88°15'04", at Pickwick Landing Dam on Tennessee River, 1½ miles north of town of Pickwick Dam, Hardin County, Tenn., 6.1 miles upstream from Lick Creek, 52.7 miles (revised) downstream from Wilson Dam, and at mile 206.7. Drainage area, 32,820 sq mi. Records available, October 1937 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929. Maximum 12 p.m. contents during year, 513,000 cfs-days May 12; maximum elevation, 416.53 ft May 12; minimum 12 p.m. contents 341,000 cfs-days Jan. 11; minimum elevation, 407.80 ft Jan. 10. Maximum elevation during period 1937-56, 419.49 ft Mar. 30, 1944; minimum (after first filling), 407.12 ft Dec. 18, 1944. Contents based on backwater profile.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with twenty-two 2-section lift gates 40 ft high by 40 ft wide, one of which is used as a trash gate. Dam completed and storage began Feb. 8, 1938 (corrected); water in reservoir first reached minimum pool elevation Feb. 18, 1938. Total level pool capacity at elevation 418.0 ft (top of gates) is 550,200 cfs-days, of which 210,900 cfs-days is controlled flood storage above elevation 408.0 ft (minimum navigation pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Kentucky Lake.--Lat 37°00'45", long 88°16'12", at Kentucky Dam on Tennessee River at Gilbertsville, Marshall County, Ky., and at mile 22.4. Drainage area, 40,200 sq mi. Records available, July 1944 to September 1956. Gage, water-stage recorder. Datum of gage is at mean sea level, datum of 1929. Maximum 12 p.m. contents during year, 1,541,000 cfs-days Feb. 7; maximum elevation, 360.05 ft May 6; minimum 12 p.m. contents, 992,000 cfs-days Nov. 29; minimum elevation, 353.05 ft Feb. 27. Maximum elevation during period 1944-56, 368.81 ft Jan. 24, 1950; minimum (after first filling) 349.20 ft Jan. 22, 1947. Contents based on backwater profile.

Reservoir is formed by concrete dam with 24 lift gates 50 ft high by 40 ft wide. Storage began Aug. 16, 1944, and final closure was made Aug. 30, 1944. Water in reservoir reached minimum pool elevation Apr. 7, 1945. Total level pool capacity at elevation 375.0 ft (top of gates) is 3,026,300 cfs-days, of which 2,022,100 cfs-days is controlled storage above 354.0 ft (ordinary minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Other reservoirs.--The following smaller reservoirs in the Tennessee River basin are described below, but records of contents are not published herein:

Burnett Lake on North Fork Swannanoa River near Black Mountain, N. C., with total capacity of 11,600 cfs-days, of which 8,900 cfs-days is controlled storage. Storage began Jan. 28, 1954.

Lake Walters on Pigeon River near Waterville, N. C., with total capacity of 12,700 cfs-days, of which 10,300 cfs-days is controlled storage. Storage began Oct. 27, 1929.

Davy Crockett Lake on Nolichucky River at Nolichucky Dam, Tenn., with total capacity of 8,070 cfs-days of which 4,060 cfs-days is controlled storage.

Tennessee Creek project lakes, Wolf Creek Lake on Wolf Creek and East Fork Lake on Tuckasegee River near Tuckasegee, N. C., with total capacity of 5,750 cfs-days, of which 4,480 cfs-days is controlled storage. Storage began Mar. 22, 1955.

Bear Creek Lake on Tuckasegee River near Tuckasegee, N. C., with total capacity of 17,500 cfs-days, of which 2,290 cfs-days is controlled storage. Storage began Oct. 9, 1953.

Cedar Cliff Lake on Tuckasegee River near Tuckasegee, N. C., with total capacity of 3,200 cfs-days, of which 400 cfs-days is controlled storage. Storage began Apr. 26, 1952.

Cheoah Lake on Little Tennessee River at Cheoah, N. C., with total capacity of 17,700 cfs-days, of which 3,700 cfs-days is controlled storage. Storage began Dec. 8, 1918.

Calderwood Lake on Little Tennessee River at Calderwood, Tenn., with total capacity of 20,800 cfs-days of which 2,060 cfs-days is controlled storage.

Reservoirs in Tennessee River basin--Continued

Month-end elevation and contents, water year October 1955 to September 1956

Date	Douglas Lake			South Holston Lake			Watauga Lake		
	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)
Sept.30	936.74	110,600	-	1,655.42	120,000	-	1,890.48	112,900	-
Oct. 31	932.48	91,000	-19,600	1,635.48	86,400	-33,600	1,866.25	72,400	-40,500
Nov. 30	928.53	75,100	-15,900	1,625.78	72,400	-14,000	1,829.98	36,100	-36,300
Dec. 31	921.08	50,600	-24,500	1,619.76	64,500	-7,900	1,825.59	33,000	-3,100
Calendar year 1955.	-	-	-22,800	-	-	+1,900	-	-	+4,400
Jan. 31	916.2	38,100	-12,500	1,620.70	65,700	+1,200	1,823.38	31,400	-1,600
Feb. 29	948.87	181,300	+143,200	1,656.30	121,700	+56,000	1,866.86	73,200	+41,800
Mar. 31	961.67	280,100	+98,800	1,682.84	179,000	+57,300	1,887.28	106,900	+33,700
Apr. 30	989.32	579,300	+299,200	1,706.50	244,400	+65,400	1,908.12	149,200	+42,300
May 31	993.40	634,900	+55,600	1,712.94	264,900	+20,500	1,915.72	166,700	+17,500
June 30	988.83	572,900	-62,000	1,710.81	258,000	-6,900	1,918.69	173,800	+7,100
July 31	985.08	525,100	-47,800	1,710.73	257,700	-300	1,924.53	188,200	+14,400
Aug. 31	969.38	351,500	-173,600	1,703.81	236,200	-21,500	1,923.10	184,600	-3,600
Sept.30	953.20	212,000	-139,500	1,689.45	195,800	-40,400	1,920.63	178,500	-6,100
Water year 1955-56.	-	-	+101,400	-	-	+75,800	-	-	+65,600

Date	Boone Lake			Fort Patrick Henry Lake			Cherokee Lake		
Sept.30	1,376.42	81,600	-	1,261.82	13,100	-	1,017.62	197,100	-
Oct. 31	1,372.41	74,300	-7,300	1,261.02	12,800	-300	1,009.37	152,500	-44,600
Nov. 30	1,367.53	66,200	-8,100	1,260.92	12,700	-100	998.07	102,400	-50,100
Dec. 31	1,348.63	41,000	-25,200	1,260.01	12,400	-300	987.50	66,300	-36,100
Calendar year 1955.	-	-	+16,600	-	-	+300	-	-	-55,400
Jan. 31	1,330.88	24,200	-16,800	1,261.12	12,800	+400	987.70	66,900	+600
Feb. 29	1,367.21	65,600	+41,400	1,258.80	11,800	-1,000	1,033.06	304,200	+237,300
Mar. 31	1,375.82	80,400	+14,800	1,259.36	12,100	+300	1,045.95	420,700	+116,500
Apr. 30	1,378.70	85,900	+5,500	1,260.29	12,500	+400	1,064.53	637,400	+216,700
May 31	1,377.70	84,000	-1,900	1,261.38	13,000	+500	1,065.71	653,300	+15,900
June 30	1,379.10	86,700	+2,700	1,260.93	12,800	-200	1,060.44	584,300	-69,000
July 31	1,379.35	87,200	+500	1,261.65	13,100	+300	1,056.71	538,700	-45,600
Aug. 31	1,379.46	87,400	+200	1,261.64	13,100	0	1,046.00	421,200	-117,500
Sept.30	1,378.09	84,700	-2,700	1,261.87	13,200	+100	1,033.43	307,200	-114,000
Water year 1955-56.	-	-	+3,100	-	-	+100	-	-	+110,100

Date	Fort Loudoun Lake‡			Nantahala Lake**			Thorpe Lake**		
Sept.30	811.32	168,000	-	2,831.04	31,800	-	3,063.70	13,900	-
Oct. 31	809.89	158,000	-10,000	2,806.92	20,900	-10,900	3,050.88	8,600	-5,300
Nov. 30	808.33	148,000	-10,000	2,782.56	12,400	-8,500	3,036.68	4,400	-4,200
Dec. 31	807.74	144,000	-4,000	2,781.75	12,200	-200	3,031.22	3,200	-1,200
Calendar year 1955.	-	-	-5,000	-	-	+3,000	-	-	-600
Jan. 31	808.60	150,000	+6,000	2,772.30	9,500	-2,700	3,028.77	2,800	-400
Feb. 29	806.97	140,000	-10,000	2,815.85	24,600	+15,100	3,044.44	6,500	+3,700
Mar. 31	807.52	143,000	+3,000	2,842.94	38,100	+13,500	3,055.70	10,400	+3,900
Apr. 30	813.08	180,000	+37,000	2,857.22	46,500	+8,400	3,064.10	14,100	+3,700
May 31	812.93	179,000	-1,000	2,860.48	48,600	+2,100	3,069.25	16,600	+2,500
June 30	812.39	175,000	-4,000	2,861.31	49,100	+500	3,072.44	18,300	+1,700
July 31	812.17	174,000	-1,000	2,859.79	48,100	-1,000	3,074.45	19,400	+1,100
Aug. 31	811.82	171,000	-3,000	2,863.57	50,600	+2,500	3,075.41	19,900	+500
Sept.30	813.17	181,000	+10,000	2,848.25	41,100	-9,500	3,071.40	17,700	-2,200
Water year 1955-56.	-	-	+13,000	-	-	+9,300	-	-	+3,800

Date	Fontana Lake			Santeetlah Lake**			Norris Lake		
Sept.30	1,608.49	320,400	-	1,748.99	16,600	-	975.98	450,500	-
Oct. 31	1,580.99	249,900	-70,500	1,748.74	16,500	-100	956.45	289,000	-161,500
Nov. 30	1,545.53	178,400	-71,500	1,753.81	19,100	+2,600	936.88	174,400	-114,600
Dec. 31	a1,506.2	118,100	-60,300	1,752.26	18,200	-900	932.65	155,200	-19,200
Calendar year 1955.	-	-	+7,900	-	-	-2,900	-	-	-122,400
Jan. 31	a1,492.6	101,000	-17,100	1,750.93	17,600	-600	924.08	121,300	-33,900
Feb. 29	1,591.12	274,200	+173,200	1,785.20	42,200	+42,200	988.58	583,500	+462,200
Mar. 31	1,636.10	407,000	+132,800	1,793.82	50,800	+8,600	996.71	682,900	+99,400
Apr. 30	1,676.28	564,400	+157,400	1,798.37	55,800	+5,000	1,015.19	951,900	+269,000
May 31	1,686.81	612,200	+47,800	1,790.63	47,500	-8,300	1,014.87	946,700	-5,200
June 30	1,686.94	612,800	+600	1,773.91	32,400	-15,100	1,010.33	874,800	-71,900
July 31	1,690.52	629,700	+16,900	1,763.74	25,100	-7,300	1,006.14	812,200	-62,600
Aug. 31	1,679.46	578,600	-51,100	1,768.96	28,700	+3,600	996.05	674,200	-138,000
Sept.30	1,660.97	499,800	-78,800	1,771.25	30,400	+1,700	984.64	539,100	-135,100
Water year 1955-56.	-	-	+179,400	-	-	+13,800	-	-	+88,600

† Elevation at 12 p.m.
‡ Contents based on backwater profile.
** Elevation is above a local datum; see text for adjustment to datum of 1929, supplementary adjustment of 1936.
a Estimated from 7 a.m. and 3 p.m. observations.

Reservoirs in Tennessee River basin--Continued

Month-end elevation and contents, water year October 1955 to September 1956

Date	Watts Bar Lake‡			Chatuge Lake			Nottely Lake		
	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)
Sept.30.....	738.63	444,000	-	1,880.49	36,000	-	1,775.59	83,900	-
Oct. 31.....	737.38	421,000	-23,000	1,880.55	24,200	-11,800	1,775.35	83,400	-500
Nov. 30.....	735.67	392,000	-29,000	1,874.76	18,900	-5,300	1,775.42	83,500	+100
Dec. 31.....	735.31	386,000	-6,000	1,861.96	10,300	-8,600	1,775.42	83,500	0
Calendar year 1955.	-	-	-122,000	-	-	-73,800	-	-	+58,300
Jan. 31.....	739.16	453,000	+67,000	*1,861.9	10,300	0	1,762.55	61,400	-22,100
Feb. 29.....	736.27	403,000	-50,000	1,886.74	31,100	+20,800	1,755.73	51,800	-9,600
Mar. 31.....	736.08	400,000	-3,000	1,898.58	48,500	+17,400	1,753.39	48,900	-2,900
Apr. 30.....	740.76	484,000	+84,000	1,908.58	68,400	+19,900	1,759.74	57,300	+8,400
May 31.....	740.80	485,000	+1,000	1,910.62	73,300	+4,900	1,754.14	49,800	-7,500
June 30.....	740.46	478,000	-7,000	1,907.43	65,900	-7,400	1,749.56	44,400	-5,400
July 31.....	740.21	474,000	-4,000	1,906.15	63,100	-2,800	1,746.40	41,000	-3,400
Aug. 31.....	740.92	488,000	+14,000	1,894.29	41,500	-21,600	1,724.41	22,400	-18,600
Sept.30.....	740.43	478,000	-10,000	1,895.10	42,800	+1,100	1,727.42	24,500	+2,100
Water year 1955-56.	-	-	+34,000	-	-	+6,600	-	-	-59,400

Date	Hiwassee Lake			Apalachia Lake			Blue Ridge Lake		
Sept.30.....	1,502.92	156,300	-	1,267.85	23,000	-	1,648.40	44,600	-
Oct. 31.....	1,485.28	119,600	-36,700	1,277.33	28,000	+5,000	1,633.68	30,400	-14,200
Nov. 30.....	1,464.84	86,800	-32,800	1,277.03	27,900	-100	1,619.46	21,500	-8,900
Dec. 31.....	1,442.17	59,900	-26,900	1,277.33	28,000	+100	*1,599.4	11,000	-10,500
Calendar year 1955.	-	-	-8,300	-	-	+1,400	-	-	-12,600
Jan. 31.....	1,436.46	54,300	-5,600	1,272.26	25,300	-2,700	1,592.54	8,200	-2,800
Feb. 29.....	1,479.56	109,500	+55,200	1,279.53	29,300	+4,000	1,638.60	36,300	+28,100
Mar. 31.....	1,482.95	115,400	+5,900	1,275.60	27,100	-2,200	1,662.84	60,600	+24,300
Apr. 30.....	1,508.76	170,500	+55,100	1,278.26	28,600	+1,500	1,684.08	90,100	+29,500
May 31.....	1,518.68	197,200	+26,700	1,277.49	28,100	-500	1,686.96	94,700	+4,600
June 30.....	1,519.82	200,500	+3,300	1,278.50	28,700	+600	1,685.57	92,400	-2,300
July 31.....	1,519.15	198,600	-1,900	1,278.17	28,500	-200	1,684.11	90,200	-2,200
Aug. 31.....	1,517.64	194,200	-4,400	1,277.57	28,200	-300	1,675.04	76,600	-13,600
Sept.30.....	1,498.01	145,200	-49,000	1,278.68	28,800	+600	1,664.66	62,800	-13,800
Water year 1955-56.	-	-	-11,100	-	-	+5,800	-	-	+18,200

Date	Ocoee No. 3 Lake			Parksville Lake			Chickamauga Lake‡		
Sept.30.....	1,432.82	3,800	-	834.3	40,600	-	679.66	254,000	-
Oct. 31.....	1,432.41	3,700	-100	835.0	41,200	+600	677.56	224,000	-30,000
Nov. 30.....	1,430.89	3,300	-400	828.4	35,300	-5,900	676.45	209,000	-15,000
Dec. 31.....	1,430.99	3,400	+100	826.6	33,800	-1,500	675.25	195,000	-14,000
Calendar year 1955.	-	-	+800	-	-	-2,400	-	-	-37,000
Jan. 31.....	1,427.66	2,700	-700	821.6	30,000	-3,800	676.72	213,000	+18,000
Feb. 29.....	1,432.92	3,800	+1,100	831.1	37,600	+7,600	675.84	202,000	-11,000
Mar. 31.....	1,431.12	3,400	-400	833.2	39,500	+1,900	675.96	203,000	+1,000
Apr. 30.....	1,430.31	3,200	-200	832.0	38,400	-1,100	682.40	299,000	+96,000
May 31.....	1,429.84	3,100	-100	834.9	41,100	+2,700	682.52	302,000	+3,000
June 30.....	1,433.95	4,100	+1,000	835.4	41,600	+500	682.40	299,000	-3,000
July 31.....	1,433.50	4,000	-100	835.0	41,200	-400	681.06	276,000	-23,000
Aug. 31.....	1,433.27	3,900	-100	834.2	40,500	-700	679.66	255,000	-21,000
Sept.30.....	1,422.30	2,100	-1,800	836.1	42,300	+1,800	678.61	242,000	-13,000
Water year 1955-56.	-	-	-1,700	-	-	+1,700	-	-	-12,000

Date	Hales Bar Lake‡			Guntersville Lake‡			Woods Reservoir		
Sept.30.....	633.09	73,000	-	593.41	451,000	-	953.75	29,100	-
Oct. 31.....	634.10	76,000	+3,000	593.99	470,000	+19,000	953.73	29,100	0
Nov. 30.....	633.75	76,000	0	593.27	450,000	-20,000	953.73	29,100	0
Dec. 31.....	632.85	71,000	-5,000	593.07	438,000	-12,000	953.72	29,000	-100
Calendar year 1955.	-	-	-7,000	-	-	-65,000	-	-	-7,300
Jan. 31.....	633.08	75,000	+4,000	593.45	461,000	+23,000	954.58	30,400	+1,400
Feb. 29.....	633.00	75,000	0	593.35	459,000	-2,000	957.05	34,700	+4,300
Mar. 31.....	632.50	73,000	-2,000	593.23	449,000	-10,000	957.14	34,800	+100
Apr. 30.....	634.10	76,000	+3,000	594.72	494,000	+45,000	959.52	39,300	+4,500
May 31.....	633.88	75,000	-1,000	594.69	492,000	-2,000	959.30	38,900	-400
June 30.....	633.32	74,000	-1,000	594.50	485,000	-7,000	959.26	38,800	-100
July 31.....	633.13	74,000	0	593.61	460,000	-25,000	958.06	38,400	-400
Aug. 31.....	634.22	76,000	+2,000	592.95	437,000	-23,000	958.98	38,300	-100
Sept.30.....	633.81	76,000	0	593.10	444,000	+7,000	958.02	36,400	-1,900
Water year 1955-56.	-	-	+3,000	-	-	-7,000	-	-	+7,300

* Estimated.
† Elevation at 12 p.m.
‡ Contents based on backwater profile.

Reservoirs in Tennessee River basin--Continued

Month-end elevation and contents, water year October 1955 to September 1956

Date	Wheeler Lake‡			Wilson Lake			Pickwick Lake‡		
	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)†	Contents (cfs-days)	Change in contents (cfs-days)
Sept.30.....	552.43	463,000	-	506.84	319,300	-	410.78	393,000	-
Oct. 31.....	552.07	454,000	-9,000	507.28	322,800	+3,500	410.11	381,000	-12,000
Nov. 30.....	551.05	435,000	-19,000	507.01	321,100	-1,700	408.90	358,000	-23,000
Dec. 31.....	550.28	412,000	-23,000	504.83	303,600	-17,500	408.70	352,000	-6,000
Calendar year 1955.	-	-	-102,000	-	-	-5,800	-	-	-32,000
Jan. 31.....	551.68	457,000	+45,000	507.12	321,500	+17,900	408.48	353,000	+1,000
Feb. 29.....	550.10	424,000	-33,000	505.32	307,300	-14,200	408.50	353,000	0
Mar. 31.....	552.13	462,000	+38,000	505.72	310,400	+3,100	412.33	425,000	+72,000
Apr. 30.....	555.90	568,000	+106,000	507.27	322,700	+12,300	414.84	478,000	+53,000
May 31.....	556.03	573,000	+5,000	507.52	324,800	+2,100	413.80	456,000	-22,000
June 30.....	555.60	557,000	-16,000	506.88	319,600	-5,200	413.43	448,000	-8,000
July 31.....	553.90	511,000	-46,000	507.43	324,000	+4,400	412.30	424,000	-24,000
Aug. 31.....	554.14	512,000	+1,000	506.15	313,800	-10,200	411.90	416,000	-8,000
Sept.30.....	553.33	492,000	-20,000	506.44	316,100	+2,300	411.15	401,000	-15,000
Water year 1955-56.	-	-	+29,000	-	-	-3,200	-	-	+8,000

Date	Kentucky Lake‡		
Sept.30.....	355.78	1,113,000	-
Oct. 31.....	355.01	1,047,000	-66,000
Nov. 30.....	354.01	999,000	-48,000
Dec. 31.....	354.36	1,007,000	+8,000
Calendar year 1955.	-	-	-87,000
Jan. 31.....	357.25	1,289,000	+282,000
Feb. 29.....	354.09	1,038,000	-251,000
Mar. 31.....	355.20	1,078,000	+40,000
Apr. 30.....	358.94	1,365,000	+287,000
May 31.....	358.89	1,347,000	-18,000
June 30.....	357.98	1,270,000	-77,000
July 31.....	357.14	1,211,000	-59,000
Aug. 31.....	356.02	1,124,000	-87,000
Sept.30.....	355.06	1,060,000	-64,000
Water year 1955-56.	-	-	-53,000

† Elevation at 12 p.m.
‡ Contents based on backwater profile.

In 1931, a minor drought year, a study was made of large springs in East Tennessee and the results published in WSP 713. From 1950 to 1954, a more detailed study, including some of those springs, was carried on in cooperation with the Ground Water Branch in connection with an investigation of the ground-water resources of the region. This study was made on a roving basis, the discharge of one group of springs being measured monthly for one year and then measurements made on another group for a year. During a round of measurements in June 1954, measurements were made at many springs where regular monthly measurements had previously been discontinued. The results of measurements made were published annually in WSP 1173, 1306, 1236, 1276, and 1336. As some of the springs were measured during the drought year 1931, comparisons might be made to determine probable minimum flow of springs which were not measured in 1931. Many of these springs are used for municipal or industrial water supplies. Others do not have well sustained flow during the dry season. Results of the discharge measurements show the characteristics of the springs and give good indication of the variation of the flow.

During the water year October 1955 to September 1956, measurements were made at several springs, most of which were measured during the 1950-54 study. The results, showing the yield and in most instances the water temperature, are given in the following table:

Discharge measurements, water year October 1955 to September 1956

Spring	Location	Tributary to--	Date	Discharge (gallons per minute)	Temperature (degrees Fahrenheit)		Remarks
					Air	Water	
Grundy County							
Big.....	At Big Spring, 2.4 miles northeast of Mount View.	Unnamed creek to Elk River.	Oct. 27	49	60	76	Clear.
Loudon County							
Lambert.....	3.3 miles southeast of Loudon, Loudon Co.	Clear Branch to Tennessee River.	July 24	292	82	59	-
Wilson.....	At county road culvert 0.7 mile south of New Hope Church and 4½ miles north of Sweetwater (Monroe County).	Unnamed tributary to Pond Creek to Tennessee River.	Nov. 9	835	63	58	Clear.
Stewart County							
Blue (published in WSP 743 as Israel Spring).	Lat 36°37'16", long 87°48'47", at outlet to swamp, 1⅞ miles northeast of Bumpus Mills.	Saline Creek.....	Sept.26	4	85	61	Clear.
Brandon.....	Lat 36°33'54", long 87°53'16", 6.0 miles north of Dover.	Cumberland River....	Sept.26	332	64	56	Clear.
Bufford.....	Lat 36°28'10", long 87°50'45", 1.3 miles south of Dover.	Bufford Hollow to Lick Creek to Cumberland River.	Sept.26	9	-	55	-
Carlisle.....	Lat 36°25'50", long 87°45'28", at Carlisle, 3.7 miles south of Bear Spring.	South Cross Creek to Cumberland River.	Sept.26	0	-	-	Water in pool.
Cox.....	Lat 36°26'33", long 87°56'51", 6.8 miles southwest of Dover.	Palmer Branch to Standing Rock Creek to Tennessee River.	Sept.26	126	-	56	-
Gum.....	Lat 36°29'19", long 87°45'56", 1.1 miles north of Bear Spring.	Rattlesnake Hollow to Crooked Slough to Cumberland River.	Sept.26	22	-	58	-
Melton.....	Lat 36°34'15", long 87°49'28", 2.5 miles south of Bumpus Mills.	Hayes Fork to Saline Creek.	Sept.26	81	81	57	Clear.
Pearl.....	Lat 36°23'32", long 87°55'33", 5.35 miles north of McKinnon (Houston County).	North Fork Leatherwood Creek to Tennessee River.	Sept.26	18	-	56	-
Sexton.....	Lat 36°28'36", long 87°51'24", 1.2 miles southwest of Dover.	Indian Creek to Cumberland River.	Sept.26	13	-	57	-
Shelby No. 1.	Lat 36°39'21", long 87°52'32", 1.2 miles northeast of Tobaccoport.	Shelby Creek to Cumberland River.	Sept.26	637	81	57	Clear.
Shelby No. 2.	Lat 36°39'22", long 87°52'31", 1.2 miles northeast of Tocacco port.	....do.....	Sept.26	957	79	57	Clear.
Unnamed.....	Lat 36°28'48", long 87°53'04", at "The Spring Grill," 2½ miles west of Dover.	Hinson Creek to Hickman Creek to Cumberland River.	Sept.26	265	-	60	-

Roan Creek at Butler, Tenn.

Location.--Lat 36°20'22", long 81°59'36", on right bank half a mile northeast of Butler, Johnson County, and 0.7 mile upstream from mouth.

Drainage area.--166 sq mi.

Records available.--August 1900 to November 1901 and May 1934 to October 1948 (discontinued) in reports of Geological Survey. Revised records for 1900 to 1901 in Tennessee Division of Geology Bulletin 34.

Gage.--Water-stage recorder. Datum of gage is 1,826.78 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. August 1900 to November 1901 staff gage at site half a mile downstream at different datum.

Average discharge.--15 years (1933-48), 163 cfs.

Extremes.--1934-48: Maximum discharge, 4,940 cfs Mar. 26, 1935 (gage height, 7.68 ft), from rating curve extended above 2,500 cfs, but may have been greater during floods in March and April 1934; maximum gage height, 10.09 ft Aug. 13, 1940, caused by backwater from Watauga River; minimum discharge, 17 cfs Jan. 6, 1942 (gage height, 0.02 ft), but may have been less during period of ice effect.

Revisions.--The maximum discharge for the water year 1934 has been revised to 2,670 cfs Aug. 4, 1934 (gage height, 5.18 ft), superseding figure published in WSP 758.

Remarks.--Some diurnal fluctuation at low flow caused by powerplants above station.

Revisions.--WSP 823: Drainage area. See also Records available. Revised figures of discharge, in cubic feet per second, for the water years 1934-35, superseding those published in WSP 758 and 738, are given herewith:

Aug. 16, 1934..... 251
July 26, 1935.....1,250

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 1934.....	1,340	72	273	1.64	1.90
Water year 1933-34.....	-	-	127	.765	10.36
Calendar year 1934.....	-	-	147	.886	12.03
July 1935.....	1,250	89	228	1.37	1.58
Water year 1934-35.....	3,390	55	251	1.51	20.47
Calendar year 1935.....	3,390	55	244	1.47	19.93

Watauga River at Butler, Tenn.

Location.--Lat 36°19'59", long 82°00'16", on right bank at Butler, Johnson County, 200 ft upstream from Earl Stout Mill, 1,000 ft downstream from highway bridge, and 1,100 ft downstream from Roan Creek.
Drainage area.--427 sq mi.
Records available.--August 1900 to December 1901, and October 1920 to October 1948 (discontinued) in reports of Geological Survey. Records prior to October 1924 (prior to October 1921 revised) in Tennessee Division of Geology Bulletin 34.
Gage.--Water-stage recorder. Datum of gage is 1,809.38 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Aug. 14, 1900, to Dec. 28, 1901, staff gage 800 ft upstream at unknown datum. Nov. 6, 1920, to Aug. 12, 1927, chain gage and Aug. 13, 1927, to Sept. 30, 1931, staff gage, 1,000 ft upstream at datum 2.88 ft higher.
Average discharge.--29 years, 691 cfs.
Extremes.--1900: Maximum daily discharge during period, 3,050 cfs Sept. 17 (gage height, 4.50 ft); minimum daily, 157 cfs Aug. 15, 19, 20, 29, Sept. 7-13.
1901: Maximum daily discharge during year, 31,400 cfs May 21 (gage height, 16.27 ft); minimum daily, 120 cfs Feb. 23, 24.
1902: Maximum daily discharge during period, 13,300 cfs Dec. 14 (gage height, 9.5 ft); minimum daily, 890 cfs Oct. 9-12, Oct. 27 to Nov. 3, Nov. 24 to Dec. 9.
1900-1901, 1920-48: Maximum discharge, 71,500 cfs Aug. 13, 1940 (gage height, 25.4 ft, from floodmark), from rating curve extended above 14,000 cfs on basis of contracted-opening determination of peak flow; minimum, 76 cfs Feb. 10, 1934 (gage height, 0.21 ft).
Revisions.--The figures of maximum discharge and gage height 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) †
523	1921	Feb. 9, 1921	10,500	7.7
563	1923	Mar. 16, 1923	11,100	8.0
583	1924	Jan. 11, 1924	11,300	8.1
603	1925	Apr. 28, 1925	8,700	6.8
623	1926	Jan. 18, 1926	12,500	8.7
643	1927	Feb. 22, 1927	15,500	10.2
663	1928	Nov. 17, 1927	18,600	11.6
683	1929	Mar. 5, 1929	11,400	8.0
698	1930	Oct. 2, 1929	9,350	7.0
713	1931	Apr. 22, 1931	6,150	5.4

† Site and datum then in use; from graph based on gage readings.

Revisions (water years).--WSP 543: 1921. See also Records available. Revised figures of discharge, for the water years 1900-1902, 1931, and 1935, superseding those published in Tennessee Division of Geology Bulletin 34, and in WSP 713 and 783, are given herein. Complete tables of discharge are given for the period August 1900 to December 1901, but only revised figures are given for the other water years.

Aug. 23, 1931..... 930
Sept. 9, 1935..... 1,040

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 1931.....	1,720	291	634	1.48	1.71
Water year 1930-31.....	2,810	148	519	1.22	16.52
Calendar year 1931.....	2,810	134	506	1.19	16.10
September 1935.....	3,360	242	643	1.51	1.68
Water year 1934-35.....	11,400	225	894	2.09	28.42
Calendar year 1935.....	11,400	198	853	2.00	27.14

Discharge, in cubic feet per second, 1900

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	180	9	-	157	17	158	3,050	25	180	180
2	-	180	10	-	157	18	180	2,360	26	180	180
3	-	180	11	-	157	19	157	1,460	27	180	180
4	-	180	12	-	157	20	157	980	28	180	180
5	-	180	13	-	157	21	230	230	29	157	180
6	-	180	14	283	405	22	373	205	30	476	180
7	-	157	15	157	405	23	283	230	31	311	-
8	-	157	16	135	1,360	24	255	180			
Total.....										-	14,124
Mean.....										-	471
Cubic feet per second per square mile.....										-	1.10
Runoff in inches.....										-	1.23

Watauga River at Butler, Tenn.--Continued

Discharge, in cubic feet per second, water year October 1900 to September 1901

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	180	4,970	515	515	373	341	1,260	1,260	1,260	6,600	515	1,780
2	180	3,860	735	515	373	341	9,960	1,260	1,260	2,490	515	1,360
3	180	665	735	515	373	341	7,860	1,260	1,260	1,780	515	980
4	180	562	3,860	440	1,050	341	6,390	1,260	1,260	1,070	515	980
5	180	810	2,360	373	515	341	3,860	1,260	1,260	810	515	980
6	180	665	1,780	341	515	341	3,050	1,260	1,260	810	9,960	980
7	180	515	1,260	341	440	405	1,670	1,890	1,260	810	4,040	980
8	180	515	810	341	373	515	1,260	3,200	16,800	665	1,670	980
9	180	476	562	341	1,610	515	810	1,780	6,390	515	1,070	980
10	180	476	476	476	1,210	515	810	1,460	3,050	515	810	980
11	180	476	341	515	1,050	2,360	810	1,460	3,050	515	1,780	980
12	157	440	341	7,860	1,050	1,260	810	1,460	1,890	515	9,120	1,260
13	157	373	341	3,860	735	515	810	1,070	1,670	515	4,400	1,260
14	180	341	341	2,760	515	515	810	890	1,260	515	3,050	980
15	157	341	341	1,890	515	515	810	890	1,260	515	3,360	980
16	135	341	341	1,260	515	515	810	890	1,260	515	7,230	3,050
17	135	341	341	890	515	515	810	890	810	515	7,230	1,890
18	135	341	341	890	440	515	810	890	810	515	5,560	1,360
19	135	311	341	890	373	440	810	1,070	810	515	3,200	1,260
20	135	311	341	562	205	373	19,100	1,260	810	515	2,360	1,260
21	135	311	341	515	157	373	4,220	31,400	810	515	7,650	1,260
22	135	311	341	440	157	373	3,050	16,800	810	515	5,360	1,260
23	27,300	311	341	373	120	373	3,050	3,860	810	515	2,360	1,260
24	12,200	311	341	373	120	440	3,050	3,200	810	515	1,780	2,120
25	3,050	311	341	373	157	515	2,000	3,050	810	515	1,780	1,780
26	810	4,590	341	373	205	7,860	2,000	1,890	1,460	515	1,780	1,260
27	515	2,360	341	373	341	5,760	2,000	1,670	11,500	515	1,780	1,260
28	3,050	1,260	341	373	341	3,520	1,260	1,670	11,900	515	1,780	1,260
29	2,360	1,260	341	373	-	1,780	1,260	1,670	2,120	515	1,780	1,260
30	2,360	735	341	373	-------	1,260	1,260	1,670	890	515	1,780	1,070
31	1,460	---	341	373	-------	1,260	-------	1,260	-------	515	1,780	-------
Total	56,681	28,890	20,254	29,887	14,343	35,033	86,470	94,800	80,610	26,880	97,025	39,050
Mean	1,830	963	653	964	512	1,130	2,880	3,060	2,690	867	3,130	1,300
Cfsm	4.29	2.26	1.53	2.26	1.20	2.65	6.74	7.17	6.30	2.03	7.33	3.04
In.	4.94	2.52	1.76	2.60	1.25	3.05	7.53	8.26	7.02	2.34	8.45	3.40

Calendar year 1900: Max - Min - Mean - Cfsm - In. -
Water year 1900-01: Max 31,400 Min 120 Mean 1,670 Cfsm 3.91 In. 53.12

Discharge, in cubic feet per second, 1901

Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.
1	1,050	890	890	11	890	1,050	1,890	21	1,370	1,050	1,260
2	1,050	890	890	12	890	1,050	1,360	22	1,370	1,050	1,260
3	1,050	890	890	13	2,090	1,050	1,260	23	1,130	1,050	1,260
4	1,050	1,610	890	14	2,010	1,050	13,300	24	1,130	890	5,760
5	1,050	1,290	890	15	1,690	1,050	9,960	25	1,130	890	2,360
6	1,050	1,210	890	16	1,690	1,050	5,760	26	1,130	890	1,260
7	970	1,050	890	17	1,370	1,050	3,050	27	890	890	1,260
8	970	1,050	890	18	1,370	1,050	1,890	28	890	890	1,260
9	890	1,050	890	19	1,370	1,050	1,260	29	890	890	-
10	890	1,050	3,360	20	1,370	1,050	1,260	30	890	890	-
								31	890	-	-
Total									36,470	30,860	-
Mean									1,180	1,030	-
Cubic feet per second per square mile									2.76	2.41	-
Runoff in inches									3.18	2.69	-

Brush Creek at Johnson City, Tenn.

Location.--Lat 36°19'02", long 82°20'59", on right bank at Carr Brothers Lumber Co., in Johnson City, Washington County, 200 ft upstream from Millard Street Bridge and half a mile downstream from Crane Creek.

Drainage area.--9.38 sq mi (revised).

Records available.--June 1932 to December 1933 (discontinued).

Gage.--Staff gage. Altitude of gage is 1,615 ft (from topographic map).

Extremes.--1932: Maximum discharge during period June to September, 310 cfs July 22, Aug. 17 (gage height, 3.00 ft), from rating curve extended above 37 cfs on basis of slope-area determination at gage height 4.35 ft; minimum, 2.3 cfs Aug. 25 (gage height, 0.32 ft).

1932-33: Maximum discharge during water year, 540 cfs July 30 (gage height, 2.70 ft), from rating curve extended above 37 cfs on basis of slope-area determination at gage height 4.35 ft; minimum, 2.0 cfs Sept. 20-30 (gage height, 0.19 ft).

1933: Maximum discharge during period October to December, 40 cfs Nov. 13 (gage height, 0.70 ft); minimum, 1.6 cfs many days in October and November (gage height, 0.18 ft).

Flood of Aug. 9, 1938, reached a stage of 4.35 ft, from floodmarks (discharge, 1,250 cfs, from rating curve extended above 37 cfs on basis of slope-area determination of peak flow).

Revisions.--Revised figures of discharge for the water years 1932-34, superseding those published in WSP 743 and 758, are given herein.

Discharge, in cubic feet per second, June to September 1932

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	5.2	4.8	2.6
2									-	5.2	4.4	2.6
3									-	4.4	4.4	2.6
4									-	46	4.1	2.6
5									-	7.0	3.7	2.6
6									-	11	3.7	2.6
7									-	6.0	3.7	2.6
8									-	7.0	4.1	2.6
9									-	6.0	4.1	2.6
10									-	4.8	8.6	2.6
11									-	5.2	2.6	3.0
12									-	5.2	3.0	3.0
13									-	5.2	3.0	3.0
14									-	22	3.0	3.0
15									-	4.4	3.3	3.0
16									6.0	3.7	3.0	3.0
17									6.0	40	310	3.0
18									5.6	6.5	22	3.0
19									6.5	5.2	3.7	3.0
20									6.0	5.2	3.3	3.0
21									5.6	5.2	3.3	3.0
22									6.0	115	3.0	3.0
23									6.0	4.4	3.0	3.0
24									5.6	4.1	2.6	3.0
25									5.2	4.4	2.3	3.0
26									15	4.4	2.6	5.2
27									19	4.8	2.6	43
28									63	5.2	2.6	5.2
29									7.0	5.2	2.6	4.4
30					-------				6.0	4.4	2.6	3.7
31		---- ---			------		--------		-------	4.4	2.6	--------
Total									-	366.7	432.3	132.5
Mean									-	11.8	13.9	4.42
Cfsm									-	1.26	1.48	0.471
In.									-	1.45	1.71	0.53

Calendar year	: Max	Min	Mean	Cfsm	In.
Water year	: Max	Min	Mean	Cfsm	In.

Brush Creek at Johnson City, Tenn.--Continued

Discharge, in cubic feet per second, water year October 1932 to September 1933

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	3.0	3.7	28	19	21	11	14	8.5	5.7	4.0	3.6
2	2.6	3.0	3.7	24	19	19	11	12	8.5	5.7	4.0	3.6
3	2.6	3.0	3.7	24	28	19	12	11	8.5	5.7	3.2	3.6
4	2.6	3.0	3.3	24	28	19	12	9.7	8.5	4.8	4.4	3.6
5	8.0	3.0	3.0	24	28	17	11	8.5	8.5	4.8	4.4	24
6	3.0	3.0	3.0	19	40	17	11	7.5	8.5	4.8	4.0	4.0
7	2.6	3.0	3.0	28	40	17	11	7.5	8.0	4.8	4.0	3.6
8	2.6	3.0	3.0	40	40	17	9.7	7.5	7.5	4.4	4.0	3.6
9	2.6	9.2	3.0	51	40	16	9.7	7.5	7.0	4.4	4.0	3.6
10	2.6	3.7	3.0	28	54	16	9.7	32	6.6	4.4	4.0	3.6
11	2.6	3.0	11	28	69	16	9.7	105	6.6	4.4	4.0	3.6
12	2.3	3.0	17	24	86	16	9.7	54	32	4.0	4.0	3.6
13	2.3	3.0	15	21	86	16	9.7	47	6.6	4.0	10	3.6
14	2.3	3.0	38	21	86	16	9.7	30	8.0	22	4.8	3.2
15	2.3	3.0	17	20	125	16	9.7	21	6.6	7.5	4.4	2.8
16	30	3.0	15	19	86	16	9.7	16	6.6	4.8	15	2.4
17	2.3	3.0	15	19	86	16	9.7	12	6.6	4.4	6.6	2.4
18	11	3.0	14	17	40	57	11	12	6.6	4.4	4.0	2.4
19	3.0	2.6	14	17	40	25	51	12	6.2	4.4	4.0	2.4
20	3.0	6.0	14	17	86	19	17	50	6.2	101	4.0	2.0
21	3.0	5.2	14	15	69	19	11	16	5.7	4.0	4.0	2.0
22	3.0	3.0	14	15	36	17	11	11	5.7	4.0	3.6	2.0
23	3.0	3.0	14	15	30	16	9.7	10	5.7	4.0	3.6	2.0
24	3.0	3.0	15	15	28	16	9.7	10	11	4.0	3.6	2.0
25	3.0	2.6	19	35	26	16	9.7	11	12	4.0	3.6	2.0
26	16	3.3	28	17	24	14	9.7	9.7	5.7	3.6	3.6	2.0
27	3.7	3.3	40	17	21	12	9.7	57	5.7	16	3.6	2.0
28	3.7	3.3	105	17	21	12	9.7	10	5.7	4.4	3.6	2.0
29	3.0	3.7	54	17	-	12	9.7	9.7	5.7	4.0	19	2.0
30	3.0	3.7	35	17	-------	11	11	16	5.7	10	5.2	2.0
31	3.0	-------	43	17	-------	11	-------	9.7	-------	8.5	3.6	-------
Total	140.3	103.6	583.4	690	1,381	547	355.9	648.3	240.7	276.9	157.8	105.2
Mean	4.53	3.45	18.8	22.3	49.3	17.6	11.9	20.8	8.02	8.93	5.09	3.51
Cfsm	0.483	0.368	2.00	2.38	5.26	1.88	1.27	2.22	0.855	0.952	0.543	0.374
In.	0.56	0.41	2.31	2.74	5.48	2.17	1.41	2.56	0.95	1.10	0.63	0.42

Calendar year 1932: Max - Min - Mean - Cfsm - In. -
Water year 1932-33: Max 125 Min 2.0 Mean 14.3 Cfsm 1.52 In. 20.74

Discharge, in cubic feet per second, October to December 1933

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	1.6	2.0									
2	1.6	1.6	2.0									
3	1.6	1.6	2.0									
4	1.6	1.6	2.0									
5	1.6	1.6	2.0									
6	1.6	2.0	6.6									
7	1.6	2.0	2.4									
8	1.6	2.0	2.4									
9	1.6	2.0	2.4									
10	1.6	1.6	2.4									
11	1.6	1.6	2.4									
12	1.6	1.6	6.6									
13	1.6	14	2.8									
14	1.6	2.4	2.4									
15	1.6	2.0	2.4									
16	1.6	1.6	2.4									
17	3.2	1.6	2.4									
18	2.8	1.6	3.2									
19	2.4	1.6	4.8									
20	2.4	1.6	2.4									
21	2.0	7.0	2.4									
22	1.6	2.4	2.4									
23	1.6	2.0	2.4									
24	1.6	2.0	2.4									
25	1.6	2.0	2.4									
26	1.6	2.0	16									
27	1.6	2.0	6.2									
28	1.6	2.0	4.4									
29	1.6	2.0	3.2									
30	1.6	2.0	2.8		-------							
31	1.6	-------	2.8		-------		-------		-------			-------
Total	54.4	72.6	105.4									
Mean	1.75	2.42	3.40									
Cfsm	0.187	0.258	0.362									
In.	0.22	0.29	0.42									

Calendar year 1933: Max 125 Min 1.6 Mean 12.7 Cfsm 1.35 In. 18.39
Water year : Max Min Mean Cfsm In.

Big Creek near Rogersville, Tenn.

Location.--Lat 36°25'34", long 82°57'07", on left bank 300 ft upstream from county bridge, 2.0 miles upstream from mouth, and 3.0 miles northeast of Rogersville, Hawkins County.
Drainage area.--47.3 sq mi.
Records available.--April 1941 to June 1949 (discontinued).
Gage.--Water-stage recorder. Altitude of gage is 1,130 ft (from topographic map).
Average discharge.--7 years (1941-48), 55.0 cfs.
Extremes.--1941-49: Maximum discharge, 3,060 cfs Jan. 20, 1947 (gage height, 6.59 ft); minimum, 2.6 cfs Sept. 25, 26, Oct. 9, 1941; minimum gage height, 1.32 ft Sept. 19, Oct. 2, 1941.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1945, superseding those published in WSP 1033, are given herewith:

July 15, 1945..... 113

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
July 1945.....	654.8	113	9.8	21.1	0.446	0.51
Water year 1944-45.	20,572.1	1,020	4.3	56.4	1.19	16.15
Calendar year 1945.	21,273.1	1,020	4.3	58.3	1.23	16.71

Little River near Walland, Tenn.

Location.--Lat 35°45'48", long 83°51'00", on right bank, 0.4 mile upstream from bridge on State Highway 73, 1.0 mile upstream from Ellejoy Creek, 3 miles downstream from Walland, Blount County, and at mile 20.7.
Drainage area.--192 sq mi.
Records available.--July 1931 to April 1952 (discontinued).
Gage.--Water-stage recorder. Datum of gage is 877.36 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.
Average discharge.--20 years (1931-51), 371 cfs.
Extremes.--1931-52: Maximum discharge, 17,600 cfs Mar. 29, 1951 (gage height, 14.88 ft); minimum (revised), 8.2 cfs Oct. 9, 1948 (gage height, 0.66 ft); minimum daily, 25 cfs Oct. 22, 1939.
Revisions.--The figure of minimum discharge for some water years have been revised, as shown in the following table. They supersede those published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
713	1931	Sept. 30, 1931	38	1.15
728	1932	Sept. 23, 1932	22	.96
743	1933	Oct. 1, 3, 4, 1932	33	1.11

Remarks.--Diurnal fluctuation at low flow caused by small mills above station.
Revisions (water years).--WSP 743: 1932(M). WSP 783: 1934. WSP 823: Drainage area. Revised figures of discharge, in cubic feet per second, for the water years 1932 and 1942, superseding those published in WSP 728, and 953, and revised peak discharge for the water year 1947, superseding figure published in WSP 1083, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1932		1932-Con.		1932-Con.	
Sept. 1	45	Sept.12	49	Sept.20	39
2	45	13	44	21	44
3	48	14	45	22	42
4	47	15	37	24	38
8	50	16	42		
9	52	17	39	1941	
10	49	18	36	Nov. 24	249
11	38	19	45	25	158

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
September 1932.....	-	120	30	52.9	0.276	0.31
Water year 1931-32.....	-	5,900	30	397	2.07	28.13
Calendar year 1932.....	-	5,900	30	476	2.48	33.72
November 1941.....	3,057	377	54	102	.531	.59
Calendar year 1941.....	75,930	1,520	32	208	1.08	14.70
Water year 1941-42.....	114,545	2,480	32	314	1.64	22.20

Revised peak discharge.--1946-47: Jan. 18 (12 m.) 3,810 cfs.

Nantahala River at Almond, N. C.

Location.--Lat 35°22'32", long 83°33'59", at highway bridge at Almond, Swain County, 0.6 mile (revised) upstream from mouth.
Drainage area.--174 sq mi.
Records available.--April 1912 to December 1917 and October 1920 to September 1943 (discontinued) in reports of Geological Survey. Monthly discharge only for some periods, published in WSP 1306. April 1912 to December 1924 in Tennessee Division of Geology Bulletin 34 and April 1912 to December 1923 in North Carolina Department of Conservation and Development Bulletin 34.
Gage.--Water-stage recorder at described site after June 5, 1934. Datum of gage is 1,596.53 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Apr. 16, 1912, to Dec. 31, 1913, staff gage at site 900 ft downstream at different datum. Jan. 1, 1914, to Nov. 30, 1917, water-stage recorder 1,100 ft downstream at datum 1,473.47 ft lower. Jan. 31, 1921, to June 5, 1934, staff gage 700 ft downstream at datum 2.34 ft lower.
Average discharge.--28 years (1912-17, 1920-43), 509 cfs (unadjusted).
Extremes.--The maximum and minimum discharges for the water years 1921-32, 1934, some of which have been revised, are given in the following table. The maximum discharges for the water years 1912, 1927, and 1933, published in WSP 543, 643, and 743, are considered to be in error owing to backwater from Little Tennessee River and should not be used.

WSP	Water year	Maximum			Minimum		
		Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
523	1921	Feb. 10, 1921	†5,190	4.8	Sept.23,24,1921	190	0.9
543	1922	-	(a)	-	Sept.25, 1922	150	.80
563	1923	Dec. 17, 1922	†6,030	g5.2	Nov. 29, 1922	115	.70
583	1924	Jan. 11, 1924	†3,980	4.2	Nov. 21, 1923	†142	.78
603	1925	Dec. 8, 1924	†5,610	g5.0	-	-	-
623	1926	Jan. 18, 1926	†3,780	g4.1	Oct. 2, 1925	84	.56
643	1927	-	(a)	-	Oct.22,23,1926	161	.84
663	1928	Mar. 30, 1928	†9,790	6.80	-	-	-
683	1929	Sept.26, 1929	†6,910	5.62	-	-	-
698	1930	Nov. 3, 1929	†3,780	g4.14	-	-	-
713	1931	Apr. 4, 1931	†3,590	g4.0	-	-	-
728	1932	Apr. 30, 1932	†5,820	g5.10	-	-	-
758	1934	Mar. 3, 1934	†9,790	g6.8	-	-	-

† Revised.
a Previously published figure discredited.
g From graph based on gage readings.

1912-17, 1920-43: Maximum discharge not determined but probably occurred Mar. 4, 1917; minimum, 28 cfs Jan. 3, 1940 (gage height, 0.20 ft), result of freezup; minimum daily, 70 cfs Jan. 2, 1940.
Remarks.--Records good except those prior to June 5, 1934, which are fair. Slight diurnal fluctuation caused by mills above station. Considerable diurnal fluctuation caused by Nantahala Lake powerplant, and considerable regulation beginning Jan. 30, 1942, by Nantahala Lake (see p. 227).
Cooperation.--Records for the period 1912-17 computed by Knoxville Power Co. and reviewed by Geological Survey.
Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1921-27 and 1933, superseding those published in North Carolina Department of Conservation and Development Bulletin 34, in Tennessee Division of Geology Bulletin 34, and in WSP 523, 543, 563, 583, 603, 623, 643, and 743, are given herein. Complete tables of daily discharges are given for water years 1921-24 and 1926-27, but only revised discharges are given for other water years.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1924		1924-Con.		1925-Con.		1925-Con.	
Dec. 7	405	Dec. 30	530	Jan. 10	1,310	Jan. 23	920
8	2,080	31	1,100	11	1,670	24	835
9	1,340			12	1,360	25	755
10	638	1925		13	1,060	26	715
11	498	Jan. 1	1,650	14	878	27	675
12	405	2	965	15	755	28	638
13	350	3	755	16	920	29	600
24	976	4	675	17	965	30	565
25	755	5	565	18	1,800	31	530
26	530	6	530	19	1,800		
27	465	7	465	20	1,480	1932	
28	405	8	465	21	1,200	Dec. 28	6,600
29	378	9	675	22	1,060	29	4,000

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1924	2,080	125	474	2.72	3.14
Calendar year 1924	2,240	125	482	2.77	37.71
January 1925	1,800	465	943	5.42	6.25
Water year 1924-25	2,080	79	347	1.99	27.02
December 1932	6,600	372	1,720	9.88	11.43
Calendar year 1932	6,600	143	690	3.97	53.84
Water year 1932-33	6,600	105	684	3.93	53.37

Nantahala River at Almond, N. C.--Continued

Discharge, in cubic feet per second, water year October 1920 to September 1921

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					560	655	620	530	445	295	245	335
2					560	620	500	560	418	275	235	285
3					*500	620	500	590	418	285	472	260
4					500	590	472	530	390	285	325	260
5					611	560	445	560	445	245	*346	245
6					560	560	445	500	418	*285	418	235
7					500	530	418	445	390	245	346	235
8					862	530	445	445	362	245	445	310
9					1,650	530	445	445	379	285	*325	285
10					3,580	560	390	445	445	275	295	235
11					2,480	500	390	655	362	260	285	245
12					1,540	500	390	620	346	285	295	235
13					1,200	500	362	880	335	245	310	226
14					1,010	472	*379	690	335	295	295	212
15					920	445	500	620	346	245	346	212
16					840	445	620	620	379	530	445	212
17					760	445	1,420	560	362	285	560	212
18					725	445	880	500	335	445	445	212
19					690	445	690	500	310	285	379	199
20					1,540	418	620	500	346	560	335	*226
21					1,010	418	560	880	310	500	310	212
22					840	418	560	760	310	472	325	235
23					840	418	840	690	310	390	500	199
24					760	620	620	620	335	325	472	190
25					760	690	620	560	379	295	379	235
26					690	560	560	560	418	346	500	560
27					760	500	690	530	325	295	390	390
28					690	500	620	500	295	325	346	295
29					-	445	620	500	310	285	310	245
30					-------	445	560	472	390	285	295	500
31		-------			-------	472	-------	445	-------	310	295	-------
Total	-	-	-	-	27,938	15,856	17,181	17,712	10,948	9,983	11,269	7,937
Mean	e294	e350	e955	e754	998	511	573	571	365	322	364	265
Cfsm	1.69	2.01	5.49	4.33	5.74	2.94	3.29	3.28	2.10	1.85	2.09	1.52
In.	1.95	2.25	6.33	4.99	5.97	3.39	3.67	3.79	2.34	2.13	2.41	1.70

Calendar year 1920: Max - Min - Mean 746 Cfsm 4.29 In. 58.37
Water year 1920-21: Max - Min - Mean 524 Cfsm 3.01 In. 40.92

* Discharge measurement made on this day.
e Estimated on basis of records for stations on nearby streams.

Discharge, in cubic feet per second, water year October 1921 to September 1922

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	362	445	620	560	840	840	1,480	800	620	445	362	199
2	285	445	1,140	500	920	2,870	1,310	760	880	472	335	190
3	560	295	920	500	840	1,600	1,100	1,010	800	620	325	190
4	390	260	880	500	760	1,200	1,010	1,670	800	500	310	199
5	325	245	760	620	1,200	1,010	1,010	1,420	760	445	310	285
6	285	235	690	560	920	*920	1,310	1,310	840	472	285	199
7	260	235	620	500	920	1,540	1,010	1,100	800	445	285	190
8	260	256	560	800	800	1,100	930	1,010	760	445	362	190
9	245	285	560	760	760	1,010	920	920	690	500	346	182
10	235	285	500	690	840	2,950	920	840	655	390	285	182
11	*226	235	500	1,100	840	2,540	965	965	620	390	445	310
12	212	235	472	880	800	1,670	840	840	620	390	*295	346
13	212	235	445	760	760	1,360	800	800	590	390	275	190
14	212	560	445	690	945	1,200	760	760	1,100	500	260	182
15	212	500	418	655	2,680	2,080	760	725	655	500	285	190
16	212	432	390	725	1,880	1,420	760	840	620	560	275	182
17	212	1,080	445	690	1,360	1,310	725	760	590	445	295	182
18	199	620	760	655	1,150	1,100	1,200	760	560	530	260	212
19	190	690	530	2,830	1,010	1,260	1,540	760	590	445	260	190
20	190	840	500	c2,600	920	1,420	1,310	690	560	445	235	182
21	190	655	500	c6,000	920	1,200	1,100	725	560	445	235	235
22	190	560	445	c3,000	840	1,100	1,010	725	530	445	235	190
23	190	500	445	*c2,000	840	1,010	920	760	500	418	235	182
24	190	445	912	1,940	760	920	840	840	472	500	235	170
25	190	472	1,520	1,600	725	880	760	800	445	390	245	150
26	190	445	920	1,420	760	840	840	760	445	390	325	190
27	190	840	760	1,260	840	1,670	800	725	445	500	260	245
28	199	1,150	690	1,100	760	1,540	1,010	690	445	500	235	182
29	*182	840	*655	1,010	-	1,420	965	655	500	418	212	170
30	295	690	590	920	-------	1,200	840	620	445	379	212	170
31	245	-------	560	840	-------	1,480	-------	655	-------	390	212	-------
Total	7,535	14,980	20,152	38,665	27,590	43,660	29,735	26,695	18,897	14,104	8,731	6,056
Mean	243	499	650	1,247	985	1,408	991	861	630	455	282	202
Cfsm	1.40	2.87	3.74	7.17	5.66	8.09	5.70	4.95	3.62	2.61	1.62	1.16
In.	1.61	3.20	4.31	8.26	5.90	9.33	6.36	5.71	4.04	3.01	1.87	1.29

Calendar year 1921: Max 3,580 Min 182 Mean 506 Cfsm 2.91 In. 39.51
Water year 1921-22: Max 6,000 Min 150 Mean 704 Cfsm 4.05 In. 54.89

* Discharge measurement made on this day.
c Backwater from Little Tennessee River.

Nantahala River at Almond, N. C.--Continued

Discharge, in cubic feet per second, water year October 1922 to September 1923

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	170	143	182	1,580	920	690	620	620	1,360	560	390	330
2	150	132	500	965	1,150	620	620	620	1,100	530	445	325
3	150	150	1,420	840	1,310	620	690	590	1,010	560	390	357
4	150	132	840	690	1,480	655	760	590	920	760	379	346
5	132	132	560	655	2,230	620	840	590	1,010	590	390	362
6	170	132	445	620	1,670	655	760	560	840	620	374	325
7	295	150	390	590	1,310	1,200	690	560	840	590	590	325
8	335	143	472	620	1,100	840	760	690	840	590	472	325
9	199	132	760	560	1,010	760	690	620	760	560	560	310
10	170	132	725	530	1,010	725	655	590	725	500	530	280
11	158	132	560	500	920	1,010	620	560	800	472	472	255
12	150	132	530	500	840	1,010	620	560	1,420	472	445	255
13	150	132	500	472	2,860	1,480	1,400	760	*1,100	472	445	250
14	150	132	500	472	1,940	1,200	1,540	620	920	560	418	240
15	170	158	1,870	840	1,420	1,010	1,100	690	800	472	384	235
16	170	a180	1,320	590	1,200	1,670	920	1,600	760	472	368	235
17	170	158	3,720	560	1,060	2,080	840	1,060	725	590	352	235
18	170	150	2,270	530	1,010	1,480	840	880	655	530	655	226
19	150	199	1,260	530	880	1,420	760	800	620	472	500	235
20	143	212	920	560	840	1,150	690	1,150	620	445	390	235
21	132	170	760	500	760	1,010	690	1,100	590	418	368	315
22	132	150	690	560	760	965	690	920	590	390	472	255
23	190	150	620	865	690	1,010	620	920	800	418	500	235
24	325	150	560	1,850	620	965	690	1,010	655	384	*445	230
25	182	143	560	1,100	620	920	620	920	690	445	384	226
26	158	132	500	920	655	840	620	1,010	590	379	368	230
27	150	150	500	840	920	800	620	920	560	362	346	260
28	150	170	760	1,010	690	760	725	1,100	600	390	346	226
29	150	143	560	840	-	690	760	1,480	725	620	445	212
30	150	158	500	840	-------	690	690	2,080	590	418	352	217
31	150	-------	595	1,060	-------	690	-------	1,670	-------	379	330	-------
Total	5,371	4,479	26,349	23,589	31,875	30,235	23,140	27,840	24,415	15,420	13,305	8,092
Mean	173	149	850	761	1,138	975	771	898	814	497	429	270
Cfsm	0.994	0.856	4.89	4.37	6.54	5.60	4.43	5.16	4.68	2.86	2.47	1.55
In.	1.15	0.96	5.63	5.04	6.81	6.46	4.95	5.95	5.22	3.30	2.84	1.73

Calendar year 1922: Max 6,000 Min 132 Mean 686 Cfsm 3.94 In. 53.51
Water year 1922-23: Max 3,720 Min 132 Mean 641 Cfsm 3.68 In. 50.04

* Discharge measurement made on this day.
a Doubtful or no gage-height record; discharge estimated on basis of records for Little Tennessee River at Franklin and Judson.

Discharge, in cubic feet per second, water year October 1923 to September 1924

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	204	174	240	1,200	565	675	565	*715	600	305	291	167
2	194	162	217	1,330	530	675	530	638	600	300	247	235
3	190	158	208	2,240	530	600	498	600	530	296	498	239
4	186	352	280	1,800	498	600	565	585	530	350	255	177
5	182	315	840	1,200	675	1,740	795	530	498	325	239	167
6	182	226	600	920	530	1,480	675	530	465	405	255	161
7	182	212	405	835	530	1,100	600	530	465	378	278	158
8	178	186	350	675	498	920	565	600	465	350	239	154
9	174	170	350	638	465	835	565	530	435	350	231	345
10	174	170	310	600	465	835	638	675	498	320	223	184
11	174	170	340	2,000	435	755	715	1,100	638	310	208	161
12	166	166	296	1,200	465	675	715	985	498	378	310	154
13	166	166	282	965	435	638	638	795	465	835	227	148
14	166	158	435	835	435	675	600	755	530	498	212	154
15	166	158	340	755	405	*600	638	715	435	405	201	161
16	166	158	435	1,440	405	565	600	*638	465	350	201	154
17	174	154	405	1,200	405	565	565	600	405	330	231	154
18	182	158	350	965	465	600	1,770	565	405	310	201	154
19	300	150	335	878	638	600	1,310	530	378	300	184	161
20	250	150	*335	795	1,420	675	1,010	498	350	305	180	532
21	186	146	325	715	878	920	878	530	350	278	180	340
22	194	150	310	675	715	755	795	498	340	273	180	872
23	196	368	675	638	638	675	715	485	340	255	215	465
24	174	255	465	755	600	675	675	485	340	286	212	296
25	*166	186	435	878	565	600	638	498	340	255	180	273
26	166	190	405	715	600	600	600	435	330	286	184	405
27	162	310	405	638	1,010	565	638	878	405	247	174	405
28	166	208	755	600	835	565	565	920	315	239	170	350
29	158	204	675	600	*755	638	530	795	310	291	167	465
30	174	305	530	638	------	675	965	755	405	231	167	465
31	240	-------	715	565	-------	565	-------	638	-------	223	164	-------
Total	5,728	6,035	13,048	29,888	17,390	23,041	21,556	19,951	13,130	10,264	6,904	8,256
Mean	185	201	421	964	600	743	719	644	438	331	223	275
Cfsm	1.06	1.16	2.42	5.54	3.45	4.27	4.13	3.70	2.52	1.90	1.28	1.58
In.	1.22	1.29	2.79	6.39	3.72	4.92	4.61	4.26	2.81	2.19	1.48	1.76

Calendar year 1923: Max 2,860 Min 146 Mean 610 Cfsm 3.51 In. 47.60
Water year 1923-24: Max 2,240 Min 146 Mean 479 Cfsm 2.75 In. 37.44

* Discharge measurement made on this day.

Nantahala River at Almond, N. C.--Continued

Discharge, in cubic feet per second, water year October 1925 to September 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	148	268	200	600	565	600	378	268	177	565	278
2	88	223	247	200	498	600	565	378	255	177	378	264
3	142	187	239	255	715	498	530	435	247	177	296	231
4	109	154	231	675	675	498	498	405	260	177	260	291
5	158	145	405	1,200	600	465	465	378	273	223	243	243
6	98	134	282	755	530	465	465	350	247	194	255	239
7	93	145	260	565	498	1,620	530	350	227	227	264	260
8	93	1,000	247	530	465	1,010	1,100	350	231	180	194	235
9	114	498	239	435	435	795	920	340	255	190	184	305
10	98	305	231	378	435	715	795	345	219	170	167	282
11	88	247	227	378	405	715	795	335	215	167	177	243
12	88	330	215	340	405	638	675	350	208	154	219	219
13	93	565	208	320	378	638	835	320	208	151	177	212
14	148	378	235	286	600	530	715	320	208	151	198	215
15	300	310	320	305	465	565	675	350	544	145	215	235
16	161	378	330	268	405	530	638	498	243	139	187	273
17	170	282	291	320	405	498	600	350	251	139	320	212
18	180	255	264	2,100	465	498	565	340	243	139	251	198
19	125	239	255	1,150	1,150	498	530	330	251	134	330	190
20	106	247	345	835	795	498	498	335	435	131	435	184
21	101	208	310	715	675	498	498	320	251	128	378	190
22	98	208	350	920	600	465	465	300	247	139	310	208
23	98	201	296	675	565	638	530	296	278	198	264	219
24	320	190	273	600	498	530	498	286	231	190	638	204
25	920	187	278	565	878	498	465	278	204	177	835	184
26	305	231	264	530	675	565	435	273	212	180	565	177
27	194	498	247	498	638	498	405	264	212	164	435	177
28	158	405	240	465	565	465	*405	273	227	278	350	177
29	136	320	220	435	-	465	405	273	194	204	310	177
30	134	282	220	405	-------	465	378	264	184	345	286	190
31	148	-------	220	530	-------	878	-------	255	-------	286	268	-------
Total	5,150	8,900	8,257	17,833	16,018	18,804	17,478	10,319	7,528	5,631	9,954	6,712
Mean	166	297	266	575	572	607	583	333	251	182	321	224
Cfsm	0.954	1.71	1.53	3.30	3.29	3.49	3.35	1.91	1.44	1.05	1.84	1.29
In.	1.10	1.90	1.76	3.81	3.42	4.02	3.74	2.21	1.61	1.20	2.13	1.43

Calendar year 1925: Max 1,800 Min 79 Mean 336 Cfsm 1.93 In. 26.21
Water year 1925-26: Max 2,100 Min 86 Mean 363 Cfsm 2.09 In. 28.33

* Discharge measurement made on this day.

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	251	215	405	1,420	602	795	715	462	795	364	530	320
2	184	177	378	1,180	602	795	678	430	565	353	364	300
3	177	170	350	1,020	565	715	602	402	495	358	336	353
4	167	164	350	975	530	678	602	402	430	342	402	331
5	227	158	330	838	495	678	640	402	402	353	430	300
6	247	158	325	795	495	795	640	462	375	320	348	295
7	170	158	305	715	602	1,120	602	402	402	305	320	430
8	164	158	335	678	565	2,600	565	375	375	320	310	326
9	154	795	498	640	565	2,200	640	375	364	430	402	336
10	158	508	530	640	602	1,790	640	375	364	495	315	310
11	164	305	435	565	565	*1,420	602	358	353	678	715	320
12	180	260	465	565	565	1,240	565	342	495	430	880	290
13	194	243	1,890	530	1,340	1,130	565	342	364	375	602	280
14	212	235	1,480	795	1,420	1,420	530	375	430	342	495	266
15	170	498	1,130	565	975	1,130	495	331	795	342	640	261
16	177	1,150	880	495	838	1,020	495	336	975	331	462	252
17	*208	675	755	565	755	975	495	320	755	370	430	238
18	174	715	678	495	715	880	462	320	975	402	402	234
19	158	565	602	495	678	838	462	310	838	430	375	300
20	158	498	530	495	715	795	430	348	678	331	375	336
21	151	435	640	495	640	795	495	336	602	320	348	252
22	145	378	1,520	462	602	838	795	305	640	430	331	230
23	145	378	975	462	2,430	715	565	295	565	495	320	230
24	161	350	1,130	462	1,660	715	530	320	530	375	300	216
25	296	350	c2,400	462	1,300	678	530	495	495	331	295	216
26	187	729	c3,600	495	1,080	640	495	358	462	364	290	207
27	174	715	c1,800	565	928	640	495	305	430	320	430	216
28	161	530	c3,000	495	838	602	462	348	402	290	402	216
29	158	465	c2,400	715	-	565	430	495	402	290	310	212
30	158	435	c2,000	640	-------	602	462	565	375	290	*295	198
31	198	-------	1,660	678	-------	755	-------	530	-------	678	353	-------
Total	5,628	12,570	33,776	20,397	23,667	30,559	16,684	11,821	16,128	11,854	12,807	8,271
Mean	182	419	1,090	658	845	986	556	381	538	382	413	276
Cfsm	1.05	2.41	6.26	3.78	4.86	5.67	3.20	2.19	3.09	2.20	2.37	1.59
In.	1.20	2.69	7.22	4.36	5.06	6.53	3.57	2.53	3.45	2.53	2.74	1.77

Calendar year 1926: Max 3,600 Min 128 Mean 445 Cfsm 2.56 In. 34.68
Water year 1926-27: Max 3,600 Min 145 Mean 559 Cfsm 3.21 In. 43.65

* Discharge measurement made on this day.
c Backwater from Little Tennessee River.

North Fork Powell River at Pennington Gap, Va.

Location.--Lat 36°46'26", long 83°01'59", in center span on downstream side of highway bridge, 0.8 mile north of town of Pennington Gap, Lee County, 1.3 miles downstream from Straight Creek, and 4.5 miles upstream from Powell River.

Drainage area.--70 sq mi, approximately.

Records available.--October 1944 to September 1951 (discontinued).

Gage.--Wire-weight gage read twice daily. Altitude of gage is 1,365 ft (by barometer). Prior to Dec. 7, 1949, staff gage at same site and datum.

Average discharge.--7 years, 133 cfs.

Extremes.--1944-51: Maximum discharge, 9,700 cfs (revised) Jan. 7, 1946 (gage height, 12.1 ft, from floodmark), from rating curve extended above 2,300 cfs on basis of slope-area determinations at gage heights 8.7 and 12.1 ft; no flow Sept. 4, 5, 1951.

Revisions.--The figures of maximum discharge 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)
1033	1945	Feb. 13, 1945	3,760	†7.6
1053	1946	Jan. 7, 1946	9,700	‡12.1
1083	1947	Jan. 15, 1947	3,940	‡7.9
1113	1948	Feb. 14, 1948	5,400	†9.5
1143	1949	Jan. 5, 1949	3,820	†7.7
1173	1950	Dec. 13, 1949	6,100	†10.0
1206	1951	Feb. 1, 1951	3,460	†7.1

† From graph based on gage readings.
‡ From floodmarks.

Remarks.--Occasional diurnal fluctuation caused by powerplant 2.1 miles above station.

Revisions.--Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1945-48 and 1950, superseding those published in WSP 1033, 1053, 1083, 1113, and 1173, are given herewith:

Feb. 13, 1945..... 2,160
Jan. 7, 1946..... 4,100
Jan. 8, 1946..... 3,360
Jan. 15, 1947..... 1,900
Jan. 20, 1947..... 2,680
Feb. 13, 1948..... 2,680
Feb. 14, 1948..... 2,810
Jan. 30, 1950..... 2,750

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
February 1945.....	10,799	2,160	30	386	5.51	5.74
Water year 1944-45.....	48,314.6	2,160	1.2	132	1.89	25.69
Calendar year 1945.....	51,554.3	2,160	1.2	141	2.01	27.41
January 1946.....	13,461	4,100	67	434	6.20	7.15
Water year 1945-46.....	47,039.3	4,100	2.4	129	1.84	24.98
Calendar year 1946.....	42,004.1	4,100	2.4	115	1.64	22.31
January 1947.....	14,979	2,680	71	483	6.90	7.96
Water year 1946-47.....	45,853.4	2,680	3.6	126	1.80	24.37
Calendar year 1947.....	44,684.3	2,680	3.0	122	1.74	23.74
February 1948.....	13,064	2,810	69	450	6.43	6.94
Water year 1947-48.....	39,576.9	2,810	.4	108	1.54	21.01
Calendar year 1948.....	45,978.9	2,810	.3	126	1.80	24.41
January 1950.....	16,955	2,750	98	547	7.81	9.00
Water year 1949-50.....	64,440.4	2,750	5.4	177	2.53	34.22
Calendar year 1950.....	56,368.2	2,750	2.8	154	2.20	29.93

Emory River at Deermont, Tenn.
(Formerly published as Emery River at Deermont)

Location (revised).--Lat 36°01'39", long 84°34'47", on county highway bridge at Deermont siding on Southern Railway, 0.4 mile upstream from Crab Orchard Creek, 2.0 miles downstream from Crooked Fork, 3.2 miles northwest of Oakdale, Morgan County, and at mile 21.8.

Drainage area.--704 sq mi (revised).

Records available.--July 1920 to September 1927 (discontinued). Published as Emery River at Deermont.

Gage.--Chain gage. Datum of gage is 791.7 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--7 years, 1,384 cfs.

Extremes.--1920-27: Maximum discharge, 51,300 cfs (revised) Dec. 25, 1926 (gage height, 18.2 ft, from graph based on gage readings), from rating curve extended above 9,500 cfs on basis of computed crest discharge at Oakdale; minimum, 2.2 cfs Aug. 22, 1924 (gage height, -0.11 ft); minimum stage was probably as low or lower during 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 water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)†	Gage height (feet)
523	1921	Aug. 16, 1921	24,800	††12.0
543	1922	Mar. 1, 1922	41,100	††16.0
563	1923	Mar. 11, 1923	33,800	††14.3
583	1924	May 28, 1924	24,100	††11.8
603	1925	Feb. 15, 1925	24,800	††12.0
623	1926	Oct. 25, 1925	32,200	13.9
643	1927	Dec. 25, 1926	51,300	††18.2

† From rating curve extended above 9,500 cfs on basis of computed crest discharge at Oakland for flood of Dec. 25, 1926.

†† From graph based on twice-daily chain-gage readings.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1920-25, superseding those published in WSP 503, 523, 543, 563, 583, and 603, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1920		1922-Con.		1923-Con.		1924-Con.	
Aug. 11	14,800	Mar. 2	15,500	Feb. 2	11,400	Feb. 28	11,400
12	13,600	3	9,950	3	17,900	May 28	13,900
13	8,340	10	24,800	4	9,670	29	16,900
14	10,100	11	11,100	12	7,840		
16	12,600	Apr. 1	10,200	13	13,600	1925	
		18	13,200	14	8,860	Feb. 15	11,100
1921		19	9,130	Mar. 7	19,300	16	11,400
Feb. 9	7,960	28	19,000	11	11,400	17	11,700
10	14,800	29	9,950	12	17,600	Apr. 28	15,500
11	10,100	Dec. 15	11,100	13	8,340	29	7,360
Apr. 16	11,000	16	7,600				
17	16,200	17	12,600	1924			
		18	8,600	Feb. 20	13,200		
1922				21	9,400		
Mar. 1	37,200	1923		27	13,900		
		Feb. 1	8,860				

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 1920	14,800	8	3,510	4.99	5.75
February 1921	14,800	1,160	3,690	5.24	5.46
April	16,200	445	2,310	3.28	3.66
Water year 1920-21	16,200	13	1,140	1.62	22.02
Calendar year 1921	16,200	12	1,130	1.61	21.72
March 1922	37,200	1,030	5,680	8.07	9.30
April	19,000	1,120	4,710	6.69	7.47
Water year 1921-22	37,200	12	1,850	2.63	35.74
December 1922	12,600	132	2,820	4.01	4.62
Calendar year 1922	37,200	4.0	1,900	2.70	36.61
February 1923	17,900	1,200	4,830	6.86	7.14
March	19,300	988	4,320	6.14	7.08
Water year 1922-23	19,300	4.0	1,640	2.33	31.70
Calendar year 1923	19,300	5.0	1,510	2.14	29.06
February 1924	13,900	640	2,990	4.25	4.58
May	16,900	445	2,650	3.76	4.34
Water year 1923-24	16,900	4.5	1,200	1.70	23.29
Calendar year 1924	16,900	3.8	1,190	1.69	23.05
February 1925	11,700	645	2,480	3.52	3.67
April	15,500	195	1,460	2.07	2.31
Water year 1924-25	15,500	-	790	1.12	15.25
Calendar year 1925	23,300	4.2	1,100	1.56	21.30

Whites Creek at Glen Alice, Tenn.
(Formerly published as White Creek at Glen Alice)

Location.--Lat 35°47'40", long 84°44'51", 1,000 ft downstream from bridge on U. S. Highway 27, 0.5 mile downstream from Black Creek, and 0.8 mile (revised) southwest of Glen Alice, Roane County.

Drainage area.--135 sq mi (revised).

Records available.--October 1930 to June 1934 (discontinued). Published as White Creek at Glen Alice.

Gage.--Staff gage. Datum of gage is 753.76 ft above mean sea level, datum of 1929, supplementary adjustment of 1935.

Extremes.--1930-34: Maximum discharge, 19,400 cfs (revised) Mar. 2, 1934 (gage height, 10.70 ft), from rating curve extended above 2,800 cfs on basis of contracted-opening determination in 1957 at gage height 16.5 ft; minimum, 0.7 cfs Oct. 27, 1931; minimum gage height, 1.30 ft Sept. 29, 30, 1931.
Flood of Mar. 23, 1929, reached a stage of 18.7 ft.
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)
713	1931	Mar. 28, 1931	4,010	6.00
728	1932	Jan. 30, 1932	†5,720	††6.70
743	1933	Feb. 14, 1933	†10,600	8.40
758	1934	Mar. 2, 1934	†19,400	10.70

† From rating curve extended above 2,800 cfs on basis of contracted-opening determination in 1957 at gage height 16.5 ft.
†† From graph based on twice-daily gage readings.

Revisions (water years).--WSP 743: 1931. Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1933-34, superseding those published in WSP 743 and 758, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1932		1933-Con.		1934-Con.	
Dec. 27	2,200	Feb. 15	3,080	Mar. 3	4,490
28	5,470	20	4,490	24	4,490
31	2,850	1934		25	1,910
1933		Jan. 7	4,490		
Feb. 14	4,010	Mar. 2	7,900		

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1932	5,470	92	750	5.56	6.40
Calendar year 1932	5,470	5.1	313	2.32	31.50
February 1933	4,490	130	812	6.01	6.26
Water year 1932-33	5,470	5.6	311	2.30	31.32
Calendar year 1933	4,490	5.1	212	1.57	21.30
January 1934	4,490	36	393	2.91	3.36
March	7,900	82	1,028	7.62	8.78

Ocoee River at McHarg, Tenn.

Location.--Lat 35°00'25", long 84°24'46", 0.6 mile (revised) downstream from highway bridge, 1 mile downstream from McHarg railroad siding, Polk County, 1 mile downstream from North Potato Creek (formerly Potato Creek), 3 miles downstream from Copperhill, and at mile 34.6.

Drainage area.--447 sq mi.

Records available.--May 1917 to November 1942 (discontinued) in reports of Geological Survey. Prior to October 1924 (including revised records November 1918 to September 1920) in Tennessee Division of Geology Bulletin 34.

Gage.--Water-stage recorder. Datum of gage is 1,427.16 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 10, 1931, staff gage 0.6 mile upstream at datum 2.84 ft higher.

Average discharge.--26 years (1916-42), 1,073 cfs (unadjusted).

Extremes.--1916-42: Maximum discharge, 17,300 cfs July 22, 1938 (gage height, 9.58 ft); minimum, about 105 cfs (regulated) Oct. 3, 4, 1931 (gage height, -0.1 ft, estimated, site and datum then in use); minimum daily, 120 cfs Aug. 27, 31, Sept. 21-23, 1935.
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)
473	1918	Jan. 28, 1918	†8,790	7.1
503	1919	Dec. 22, 1918	13,500	9.65
503	1920	Apr. 2, 1920	16,200	11.0
523	1921	Dec. 14, 1920	15,400	10.55
563	1923	Dec. 17, 1922	7,700	6.48
583	1924	Mar. 5, 1924	9,740	7.60
603	1925	Dec. 8, 1924	6,260	5.70
623	1926	Jan. 18, 1926	8,240	6.80
643	1927	Dec. 28, 1926	8,790	7.10
663	1928	Mar. 30, 1928	16,200	11.0
683	1929	May 6, 1929	12,800	9.20
698	1930	Mar. 7, 1930	6,620	5.88

† Discharge figure not previously published.

Remarks.--Flow regulated since Dec. 6, 1930, by Blue Ridge Lake (see p. 229). Some flow diverted above station into North Potato Creek.

Revisions.--See Records available. Figures of monthly and annual discharge in cubic feet per second per square mile and runoff in inches for the period December 1930 to September 1936, previously published in WSP 713, 728, 743, 758, 783, and 803, are unadjusted for storage and should not be used. Revised figures of discharge, in cubic feet per second, for the water years 1919-22, 1928, superseding those published in Tennessee Division of Geology Bulletin 34 and WSP 523, 543, and 663, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1918		1920-Con.		1921-Con.		1922	
Dec. 22	13,000	Apr. 5	5,000	Feb. 10	11,400	Jan. 19	4,040
23	4,340	6	3,760	11	7,160	20	7,520
		7	3,500	12	3,760	21	15,200
1920		9	3,500	13	4,190	22	5,720
Apr. 1	3,760			14	3,760		
2	14,100	1921		20	3,639	1928	
3	5,720	Feb. 8	4,500			Mar. 30	9,740
4	9,360	9	7,700				

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1918	13,000	722	2,010	4.51	5.19
Calendar year 1918	13,000	-	1,090	2.44	33.02
Water year 1918-19	13,000	-	1,390	3.12	42.16
April 1920	14,100	1,930	3,400	7.62	8.50
Water year 1919-20	14,100	330	1,540	3.45	46.89
Calendar year 1920	14,100	575	1,620	3.63	49.33
February 1921	11,400	1,180	3,000	6.73	7.00
Water year 1920-21	11,400	380	1,250	2.80	37.96
Calendar year 1921	11,400	380	1,170	2.62	35.57
January 1922	15,200	800	2,270	5.09	5.86
Water year 1921-22	15,200	348	1,420	3.18	43.34
Calendar year 1922	15,200	311	1,380	3.09	42.08
March 1928	9,740	720	1,610	3.61	4.15
Water year 1927-28	9,740	297	1,290	2.89	39.27
Calendar year 1928	9,740	580	1,310	2.94	39.86

Hiwassee River at Charleston, Tenn.

Location.--Lat 35°17'16", long 84°45'07", at Epperson packing plant, 250 ft downstream from old highway bridge, 250 ft upstream from Southern Railway bridge, 1,700 ft upstream from new bridge on U. S. Highway 11 at Charleston, Bradley County, and at mile 18.9.

Drainage area.--2,298 sq mi.

Records available.--January 1899 to December 1902 and October 1920 to September 1940 (gage heights only after January 1940) in reports of Geological Survey. November 1898 to April 1903 and October 1919 to September 1924 in Tennessee Division of Geology Bulletin 34. Gage-height records collected at same site December 1884 to March 1889 are contained in Part 1, Stages of Ohio River, 1858-89, United States War Department, and January 1890 to December 1943 in reports of the U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 665.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Sept. 29, 1922, staff gage, Sept. 29, 1922, to July 17, 1925, chain gage, and July 18, 1925,to Sept. 6, 1926, water-stage recorder, at Southern Railway bridge 250 ft downstream at datum 1.5 ft higher. Auxiliary staff gages at several sites and datums used Jan. 1, 1921, to Aug. 16, 1924, July 6 to Aug. 9, 1930, and since Nov. 21, 1934.

Average discharge.--22 years (1900-1902, 1919-39), 4,821 cfs (unadjusted).

Extremes.--1898-1903, 1919-40: Maximum discharge, 55,800 cfs Dec. 29, 1932 (gage height, 28.58 ft); minimum (corrected), 260 cfs Sept. 14, 1925 (gage height, -1.28 ft).
Maximum stage known, 34.0 ft Mar. 31, 1886, present datum (discharge, about 70,000 cfs).

Revisions.--Figures of maximum discharge for the water years 1922 and 1936 have been revised to 43,900 cfs Jan. 22, 1922 (gage height, 26.7 ft) and 53,400 cfs Feb. 5, 1936 (gage height 27.19 ft), superseding figures published in WSP 543 and 803, respectively.

Remarks.--Flow regulated by Parksville Lake beginning Dec. 15, 1911, by Blue Ridge Lake beginning Dec. 6, 1930, and by Hiwassee Lake beginning Apr. 13, 1939.

Revisions.--Previously published monthly and yearly figures of discharge in cubic feet per second per square mile and runoff in inches for October 1919 to January 1940 may be in error due to storage in lakes upstream and should not be used. Revised figures of discharge, in cubic feet per second, for the water years 1902 and 1928, superseding those published in WSP 65 and 663, are given herewith:

1901		1901-Con.	
Dec. 15	39,600	Dec. 31	35,200
16	26,400		
29	23,400	1927	
30	46,200	Dec. 2	2,910

Month	Observed					Adjusted		
	Maximum	Minimum	Mean	Per square mile	Runoff in inches	Mean	Per square mile	Runoff in inches
December 1901	46,200	2,390	9,660	4.20	4.85	-	-	-
Calendar year 1901	46,200	2,390	6,940	3.02	40.98	-	-	-
Water year 1901-2	46,200	1,120	5,230	2.28	30.89	-	-	-
December 1927	22,900	1,510	6,100	-	-	-	-	-
Calendar year 1927	24,000	840	4,340	-	-	4,350	1.89	25.67
Water year 1927-28	32,200	840	5,460	-	-	5,480	2.38	32.46

Little Sequatchie River at Sequatchie, Tenn.

Location.--Lat 35°07'47", long 85°35'10", at concrete bridge on State Highway 26, 1 mile north of Sequatchie, Marion County.

Drainage area.--116 sq mi (revised).

Records available.--June 1932 to March 1934 (discontinued).

Gage.--Staff gage. Altitude of gage is 820 ft (from topographic map).

Extremes.--1932-34: Maximum discharge recorded, 11,700 cfs Mar. 2, 1934 (gage height, 12.40 ft); no flow Sept. 19, 1932 (gage height, 0.94 ft).

Remarks.--Small diversion 1 mile above station.

Revisions.--Revised figures of discharge for the period June to September 1932, superseding those published in WSP 728, are given herein.

Discharge, in cubic feet per second, June to September 1932

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	-	55	4.2	0.9	11	12	127	7.5	.1	21	17	9.5	20	3.6
2	-	240	2.6	.4	12	17	80	10	.1	22	10	9.0	16	.4
3	15	134	*2.5	.3	13	15	50	8.0	.1	23	8.5	8.0	12	.1
4	*15	78	5.4	.3	14	11	39	7.0	.1	24	7.5	8.0	9.5	.1
5	14	188	6.5	.3	15	9.5	28	6.5	*.1	25	4.8	6.5	8.5	.1
6	12	755	14	.2	16	9.5	24	6.0	.1	26	3.6	5.4	12	.1
7	10	1,570	9.5	.2	17	11	20	10	.1	27	24	4.5	8.0	.3
8	14	*865	6.0	.1	18	*7.0	18	23	.1	28	22	3.3	6.0	.4
9	10	*490	5.7	.1	19	5.7	13	73	.1	29	98	3.0	7.5	.4
10	10	225	9.0	.1	20	5.4	10	29	.6	30	48	3.3	6.5	*.4
										31	-	4.8	5.7	-
Total											-	5,054.3	357.1	10.3
Mean											-	163	11.6	0.34
Cubic feet per second per square mile											-	1.41	0.099	0.0029
Runoff in inches											-	1.62	0.11	0.003

* Discharge measurement made on this day.

Elk River near Rogersville, Ala.

Location.--Lat 34°48'11", long 87°13'56", in sec. 12, T. 3 S., R. 7 W., at bridge on U. S. Highway 72, 4 miles east of Rogersville and at mile 4.8.

Drainage area.--2,239 sq mi (revised).

Gage.--Staff gage. Datum of gage is 518.31 ft above mean sea level, datum of 1929.

Records available.--October 1927 to September 1935 (discontinued).

Average discharge.--8 years (1927-35), 3,654 cfs.

Extremes.--1927-35: Maximum discharge, 61,600 cfs Mar. 25, 1929 (gage height, 22.4 ft, from high-water mark), from rating curve extended above 29,000 cfs; minimum, 110 cfs Sept. 12, 1931 (gage height, 0.50 ft).

Revisions.--The minimum discharge for the water year 1929 has been revised to 315 cfs, Sept. 1-3,1929 (gage height, 0.9 ft), superseding figure published in WSP 683. The maximum discharge for the water year 1933 occurred on Feb. 17, 1933, rather than Feb. 16, as published in WSP 743.

Remarks.--Slight diurnal fluctuation at low flow caused by powerplants upstream.

Revisions.--Revised figures of discharge, in cubic feet per second, for low-water periods in the water year 1929, superseding those published in WSP 683, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1929		1929-Con.		1929-Con.		1929-Con.	
Aug. 4	815	Aug. 11	680	Aug. 18	520	Aug. 25	450
5	770	12	600	19	520	26	450
6	640	13	600	20	520	27	450
7	640	14	560	21	485	28	380
8	680	15	450	22	450	29	380
9	725	16	560	23	450	30	380
10	770	17	520	24	450	31	450

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 1929.....	1,120	380	595	0.266	0.31
Water year 1928-29.....	56,600	260	4,950	2.21	30.02
Calendar year 1929.....	56,600	260	5,690	2.54	34.47

Cypress Creek near Florence, Ala.

Location.--Lat 34°48'27", long 87°42'02", in NE¼ sec. 9, T. 3 S., R. 11 W., 100 ft downstream from bridge on State Highway 2, 2 miles west of Florence, 4 miles downstream from Cox Creek, and 4 miles upstream from mouth.

Drainage area.--209 sq mi.

Records available.--May 1934 to September 1950 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 423.78 ft above mean sea level, datum of 1929.

Average discharge.--17 years (1933-50), 358 cfs.

Extremes.--1933-50: Maximum discharge, 20,600 cfs May 4, 1937; maximum gage height, 17.40 ft Feb. 13, 1948, backwater from Tennessee River; minimum discharge, 42 cfs Aug. 27, 1936 (gage height, 0.35 ft).

Revisions (water years).--WSP 803: 1935. Revised figures of discharge, in cubic feet per second, for August 1934, superseding those published in WSP 758, are given herewith.

Aug. 20, 1934..... 187

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 1934.....	672	58	111	0.531	0.61
Water year 1933-34.....	-	-	245	1.17	15.93
Calendar year 1934.....	-	-	247	1.18	16.05

Duck River at Normandy, Tenn.

Location (revised).--Lat 35°27'26", long 86°15'25", at county highway bridge half a mile north of Normandy, Bedford County, 3.3 miles upstream from Nashville, Chattanooga & St. Louis Railway bridge, and 7.5 miles upstream from mouth of Garrison Fork.

Drainage area.--208 sq mi (revised).

Records available.--December 1920 to September 1931.

Gage.--Staff gage. Datum of gage is 785.65 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--1920-31: Maximum discharge, 60,000 cfs (revised) Mar. 23, 1929 (gage height, 18.1 ft, from high-water mark), from rating curve extended above 4,600 cfs on basis of computation of peak discharge from a discharge-drainage area relationship for the flood of Mar. 23, 1929, on Duck River; minimum, 40 cfs Sept. 30, 1931; minimum gage height, 0.60 ft July 30 to Oct. 2 (revised), Oct. 5-7, 1925.

Flood in March 1902 reached approximately the same stage as that of Mar. 23, 1929.

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)
543	1922	Mar. 2, 1922	†19,500	††13.5
563	1923	July 23, 1923	7,600	10.0
643	1927	Dec. 25, 1926	†22,400	14.0
663	1928	June 29,30,1928	†17,000	13.0
683	1929	Mar. 23, 1929	†60,000	††18.1

† From rating curve extended above 4,600 cfs on basis of computation of peak discharge at gage height 18.1 ft from a discharge-drainage area relationship for the flood of Mar. 23, 1929, on Duck River.

†† From high-water mark.

Revisions.--Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1927 and 1929, superseding those published in WSP 643 and 683, are given herewith:

1926
Dec. 25..... 18,000

1927
Apr. 10..... 17,000

1929
Mar. 22..... 3,020
23..... 49,000
24..... 5,200

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1926.....	18,000	160	2,005	9.64	11.11
Calendar year 1926.....	18,000	60	362	1.74	23.61
April 1927.....	17,000	330	1,544	7.42	8.28
Water year 1926-27.....	18,000	60	577	2.77	37.65
Calendar year 1927.....	17,000	62	428	2.06	27.96
March 1929.....	49,000	405	2,806	13.50	15.55
Water year 1928-29.....	49,000	62	647	3.11	42.20
Calendar year 1929.....	49,000	65	655	3.15	42.72

Measurements of streamflow in the Cumberland and Tennessee River basins 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 groundwater 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 for 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 258.

Discharge measurements made at points other than gaging stations in the Cumberland and Tennessee River basins during the water year 1956

Cumberland River basin

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
West Fork Cane Branch.	Cane Branch..	Lat 36°51'45", long 84°26'46", 2,900 ft upstream from mouth and 2.2 miles northeast of Parkers Lake, McCreary County, Ky.	0.26		Mar. 12 Apr. 16 May 9 June 21 July 19 July 20 Aug. 23	0.55 2.17 .08 0 0 0 0
Long Creek...	Cumberland River.	Lat 36°28'45", long 87°48'14", 350 ft below State Highway 49 bridge and 2.1 miles southeast of Dover, Stewart County, Tenn.	16.2	1951	Sept.26	*1.34
Lick Creek...	....do.....	Lat 36°27'49", long 87°49'15", at State Highway 49 just above Smith Hollow, 1.2 miles southeast of Dover, Stewart County, Tenn.	11.9		Sept.26	*2.08
Dyers Creek..	....do.....	Lat 36°30'05", long 87°50'07", at second crossing of U. S. Highway 70 above mouth, 1 mile north of Dover, Stewart County, Tenn.	18.1	1951	Sept.26	*0
Saline Creek.	....do.....	Lat 36°36'33", long 87°52'58", 100 ft above county highway bridge and 2½ miles west of Bumpus Mills, Stewart County, Tenn.	52.2	1951	Sept.26	*2.63
Shelby Creek.	....do.....	Lat 36°39'22", long 87°52'30", above Shelby Springs above county highway bridge, 1.2 miles northeast of Tobaccoport, Stewart County, Tenn.	2.85	1952-54	Sept.26	*0
Do.....	....do.....	Lat 36°29'22", long 87°52'32", below Shelby Spring No. 2, below county highway bridge, 1.2 miles northeast of Tobaccoport, Stewart County, Tenn.	2.87	1953-54	Sept.26	*1.91

Tennessee River basin

Davidson River.	French Broad River.	Lat 35°17'05", long 82°47'32", at John Rock ranger station, 0.2 mile above Grogan Creek, 0.5 mile below Rockhouse Creek, and 4.8 miles northwest of Brevard, N. C.	13.8		Oct. 21 June 5	*16.1 *21.0
Laurel Branch	Clear Creek..	Lat 35°22'15", long 82°24'10", at U. S. Highway 64, 0.5 mile above mouth and 4 miles southwest of Edneyville, N. C.	.57		Sept.26	.95
Left Fork Beetree Creek.	Beetree Creek	Lat 35°38'58", long 82°24'21", at mouth, at upstream end of Beetree Reservoir, 3.6 miles north of Swannanoa, N. C.	.65		Nov. 3	*.35
Brush Creek..	French Broad River.	Lat 35°50'40", long 82°44'30", at county road bridge, 0.7 mile southwest of Walnut, N. C. and 0.8 mile above mouth.	7.99	1954-55	Apr. 18	12.8
Richland Creek.	Pigeon River.	Lat 35°27'57", long 83°00'41", 20 ft below Hyatt Creek and 0.3 mile above Allen Creek at Hazelwood, N. C.	13.2	1941, 1954-55	Oct. 10 Nov. 16 Dec. 13 Jan. 5 Feb. 9 Mar. 13 Apr. 13 May 8 June 20 July 17 Aug. 7 Sept.13	*8.25 *7.85 *11.1 *8.80 *47.8 *32.3 *33.8 *43.5 *17.7 *19.4 *11.0 *7.07
Lick Creek...	Nolichucky River.	Lat 36°19'18", long 82°47'57", at mouth of Caney Creek, 2½ miles east of Baileyton, Green County, Tenn.	-		Sept.10	22.3
Do.....	....do.....	Lat 36°18'53", long 82°48'45", at bridge, 1/8 mile below Lick Creek Mill and 2 miles southeast of Baileyton, Greene County, Tenn.	-		Sept.10 Sept.13	23.1 20.3

* Base flow.

Discharge measurements made at points other than gaging stations in the Cumberland and Tennessee River basins during the water year 1956--Continued

Tennessee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Staley Creek.	Middle Fork Holston River.	Lat 36°49'22", long 81°29'17", above fish hatchery on State Highway 16, 2½ miles southwest of Marion, Va.	8.34	1952-55	May 7	12.4
Little Tennessee River.	Tennessee River.	Lat 34°57'38", long 83°22'38", at county road bridge 0.2 mile above Darnell Creek, 0.5 mile below Betty Creek, and 1.0 mile southeast of Dillard, Ga.	36.8		Nov. 12	*33.3
Connelly Creek.	Tuckasegee River.	Lat 35°25'55", long 83°21'42", at Southern Ry. bridge at mouth, at Whittier, N. C.	13.5	1953,1955	Sept.24	*8.22
Deep Creek...	....do.....	Lat 35°27'51", long 83°26'03", at ranger station 100 ft below Juney Whank Branch, 2.4 miles above mouth, and 2.6 miles north of Bryson City, N. C.	40.2	1950-55	Nov. 16 Dec. 8 Jan. 11 Feb. 16 Apr. 27 May 29 June 28 Aug. 30 Sept.17	*46.6 *96.8 *44.2 *142 *139 *77.4 *52.1 *32.5 *26.8
Sweetwater Creek.	Tennessee River.	Lat 35°25'50", long 84°27'54", at bridge on U. S. Highway 11, in Sweetwater, Monroe County, Tenn.	-		July 10	a8.86
Do.....	....do.....	Lat 35°36'37", long 84°27'36", just below last septic tank outfall, 0.4 mile southeast of Tennessee Military Institute, at Sweetwater, Monroe County, Tenn.	23.3	1932-33, 1950-54	July 4 July 10 July 24 Aug. 28	a11.9 a16.3 a12.0 *a6.70
Do.....	....do.....	Lat 35°44'18", long 84°22'25", at bridge on State Highway 72, 1.8 miles west of Loudon, Loudon County, Tenn.	-	1954	Aug. 27	*a20.0
Rock Creek...	Emory River..	Lat 36°11'54", long 84°39'39", at bridge on U. S. Highway 27, at Pilot Mountain, 3½ miles south of Sunbright, 8 miles north of Wartburg, Morgan County, Tenn.	5.54	1955	Aug. 2	*.33
Do.....	....do.....	Lat 36°08'02", long 84°37'31", at county highway bridge, 0.7 mile above mouth and 2.6 miles northwest of Wartburg, Morgan County, Tenn.	31.2	1952, 1954-55	Oct. 18	*3.19
Obed River...	....do.....	Lat 36°03'44", long 84°57'28", 1,000 ft below Adams Bridge and 9.6 miles northeast of Crossville, Cumberland County, Tenn.	92.4	1954-55	Oct. 19	*.18
Do.....	....do.....	Lat 36°04'22", long 84°54'10", at Potter Ford, 11.1 miles northeast of Crossville, Cumberland County, Tenn.	108	1955	Oct. 19	*.90
Otter Creek..	Obed River...	Lat 36°04'18", long 84°51'59", at county highway bridge, 4.8 miles northwest of Hebbertsburg, Cumberland County, Tenn.	11.4	1954-55	Oct. 19	*.003
Obed River...	Emory River..	Lat 36°04'49", long 84°46'04", 500 ft above mouth of Daddys Creek and 4.6 miles north of Hebbertsburg, Cumberland County, Tenn.	156	1944, 1954-55	Oct. 18	*2.72
Daddys Creek.	Obed River...	Lat 36°04'41", long 84°46'00", 200 ft above mouth and 4.3 miles north of Hebbertsburg, Cumberland County, Tenn.	175	1954-55	Oct. 18	*4.70
Clear Creek..	....do.....	Lat 36°06'07", long 84°43'01", at bridge below Old Howard Mill, 3.8 miles southwest of Lancing, Morgan County, Tenn.	170	1955	Oct. 18	*3.13
Emory River..	Clinch River.	Lat 36°04'09", long 84°39'46", at county highway bridge, 0.6 mile west of Nemo, Morgan County, Tenn.	612	1955	Oct. 18	*20.5
Crab Orchard Creek.	Emory River..	Lat 35°58'09", long 84°40'13", at Flat Rock Ford, 1.0 mile west of Pine Orchard, Morgan County, Tenn.	18.9	1938,1941, 1955	Oct. 18	*.55
Do.....	....do.....	Lat 36°01'18", long 84°34'53", at mouth, 0.4 mile south of Deermont, Morgan County, Tenn.	47.2	1955	Oct. 18	*2.10
Fall Creek...	White Creek..	Lat 35°50'16", long 84°47'56", at county highway bridge, 3.1 miles southeast of Ozone, Cumberland County, Tenn.	21.1	1955	Oct. 26	*.59
Piney Creek..	Fall Creek...	Lat 35°51'14", long 84°44'17", near bridge on U. S. Highway 70, at Cumberland-Roane County line, Tenn.	19.0	1944,1953, 1955	Oct. 26	*.75
Mammys Creek.	Piney Creek..	Lat 35°52'29", long 84°47'19", at bridge on U. S. Highway 70, 1.3 miles southeast of Ozone, Cumberland County, Tenn.	9.45	1955	Oct. 26	*.33

* Base flow.
a Furnished by State of Tennessee, Department of Public Health.

Discharge measurements made at points other than gaging stations in the Cumberland and Tennessee River basins during the water year 1956--Continued

Tennessee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
White Creek..	Tennessee River.	Lat 35°47'49", long 84°45'37", at former gaging station, ¼ mile upstream from Black Creek, ½ mile upstream from Southern Ry. bridge and 1½ miles southwest of Glen Alice, Roane County, Tenn.	123	1934-55	Oct. 26	*1.60
Black Creek..	White Creek..	Lat 35°47'45", long 84°45'25", 100 ft above mouth and 1.0 mile southwest of Glen Alice, Roane County, Tenn.	11.7	1944, 1952-53, 1955	Oct. 26	*2.30
Camp Creek...	....do.....	Lat 35°46'55", long 84°45'46", at bridge on U. S. Highway 27, 1.0 mile northeast of Roddy, Rhea County, Tenn.	6.25	1955	Oct. 26	*1.09
Piney River..	Tennessee River.	Lat 35°41'59", long 84°51'17", at site of former gaging station on U. S. Highway 27, at Spring City, Rhea County, Tenn	98.3	1927-32, 1944, 1952-53, 1955	Oct. 26	*3.95
Town Creek...	Piney River..	Lat 35°41'24", long 84°51'28", at county highway bridge in Spring City, Rhea County, Tenn.	6.78	1944,1953, 1955	Oct. 26	*.86
Clear Creek..	Tennessee River.	Lat 35°36'42", long 84°54'49", at bridge on U. S. Highway 27, 6.1 miles southwest of Spring City, Rhea County, Tenn.	7.47	1952,1955	Oct. 25	*.84
Richland Creek.	....do.....	Lat 35°30'17", long 85°01'20", at former gaging station 0.4 mile upstream from bridge on State Highway 30 and 1 mile northwest of Dayton, Rhea County, Tenn.	50.2	1927-31, 1934-55	Oct. 25	*.55
Little Richland Creek.	....do.....	Lat 35°31'02", long 84°59'58", at county highway bridge, at Walnut Grove School, 2 miles northeast of Dayton, Rhea County, Tenn.	15.4	1952,1955	Oct. 25	*2.34
Cane Creek...	Conasauga Creek.	Lat 35°20'09", long 84°31'07", at county highway bridge, 0.1 mile downstream from tributary draining North Etowah, McMinn County, Tenn.	-		July 12 July 16 Aug. 7	*a.60 a1.57 *a.59
Do.....	....do.....	Lat 35°18'04", long 84°32'16", at bridge on U. S. Highway 411, 0.9 mile south of city limits of Etowah, McMinn County, Tenn.	10.3	1950-52, 1954	Oct. 27 July 12 July 16 Aug. 7	*1.20 *a.73 *a4.53 *a.90
Conasauga Creek.	Hiwassee River.	Lat 35°16'30", long 84°34'06", at county highway bridge at Coghill, 1.0 mile northwest of Delano, Polk County, Tenn. and 1½ miles downstream from Cane Creek.	-		July 12 Aug. 7	*a43.8 *a41.5
Chestuee Creek.	....do.....	Lat 35°26'00", long 84°27'42", at county highway bridge, 1.0 mile northeast of Englewood, McMinn County, Tenn.	15.5		July 12	*a15.5
Do.....	....do.....	Lat 35°24'22", long 84°29'49", at bridge on U. S. Highway 411, 1.4 miles southwest of Englewood, McMinn County, Tenn.	33.5	1952,1954	Oct. 27	*9.43
Oostanaula Creek.	....do.....	Lat 35°25'58", long 84°35'07", just off State Highway 30, 0.8 mile southeast of courthouse in Athens, McMinn County, Tenn.	24.1	1932-33, 1940, 1950-52	July 5 July 11 Aug. 29	a17.6 a17.7 a11.0
Do.....	....do.....	Lat 35°18'35", long 84°42'49", at site of former TVA gaging station, 400 ft downstream from Meadow Fork and about 2½ miles northeast of Calhoun, McMinn County, Tenn.	67.0	1944,1951, 1953	July 5 July 11 Aug. 29	a61.8 a42.1 a25.0
North Mouse Creek.	....do.....	Lat 35°29'20", long 84°36'46", at county highway bridge, just downstream from Little Mouse Creek, 1.8 miles north of city limits of Athens, McMinn County, Tenn.	-		July 11	a19.7
Do.....	....do.....	Lat 35°26'50", long 84°39'21", at county highway bridge, 3¾ miles west of Athens, McMinn County, Tenn.	42.1	1951-52	Oct. 27	*13.1
Sale Creek...	Tennessee River.	Lat 35°25'35", long 85°05'24", at county highway bridge, 3.5 miles northeast of Sale Creek, Hamilton County, Tenn.	57.2	1955	Oct. 25	0
Possum Creek.	....do.....	Lat 35°20'19", long 85°07'25", at county highway bridge, 0.7 mile southeast of Bakewell, Hamilton County, Tenn.	22.7	1955	Oct. 25	*1.42
Soddy Creek..	....do.....	Lat 35°18'05", long 85°09'56", at county highway bridge, 0.8 mile north of Soddy, Hamilton County, Tenn.	49.0	1932,1944, 1953,1955	Oct. 25	*.29

* Base flow.
a Furnished by State of Tennessee Department of Public Health.

Discharge measurements made at points other than gaging stations in the Cumberland and Tennessee River basins during the water year 1956--Continued

Tennessee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Falling Water Creek.	North Chickamauga Creek.	Lat 35°11'40", long 85°14'40", at bridge on U. S. Highway 27, at Falling Water, Hamilton County, Tenn.	13.2	1944,1953 1955	Oct. 25	*1.29
North Chickamauga Creek.	Tennessee River.	Lat 35°10'30", long 85°13'40", at county highway bridge, 2.3 miles north of Hixson, Hamilton County, Tenn.	99.5	1925,1953, 1955	Oct. 25	*9.21
West Chickamauga Creek.	South Chickamauga Creek.	Lat 34°44', long 85°24', at bridge on county road, 6½ miles west of LaFayette, Ga.	-	1943	1954 Nov. 2	*2.14
Do.....	....do.....	Lat 34°48', long 85°21', at bridge on State Highway 2, 5¾ miles southwest of Chickamauga, Ga.	-	1951	1954 Nov. 2	*6.58
Tiger Creek..	....do.....	Lat 34°59', long 84°58', at bridge on county road, 0.7 mile south of Georgia-Tennessee State line and 14¾ miles north of Dalton, Ga.	-		1954 Oct. 27	0
Do.....	....do.....	Lat 34°54', long 85°05', at bridge on State Highway 3, 2 miles southeast of Ringgold, Ga.	-		1954 Oct. 27	*10.2
Chattanooga Creek.	Tennessee River.	Lat 34°55', long 85°21', at bridge on State Highway 193, 4½ miles northwest of Chickamauga, Ga.	-		1954 Nov. 2	*1.44
Rock Creek...	Chattanooga Creek.	Lat 34°57', long 85°21', at bridge on county road, 1 mile north of Flintstone, Ga.	-		1954 Nov. 2	*1.35
Depot Branch.	Lost Creek...	Lat 35°11'10", long 85°55'05", ¾ mile south of depot at Sewanee, Franklin County, Tenn.	.420	1950-54	Oct. 27	*.15
Juanita Creek	Gillian Creek	Lat 35°14'46", long 85°50'36", at bridge on U. S. Highway 41, 0.5 mile west of Monteagle, Grundy County, Tenn.	.427	1950-54	Oct. 27	0
Henley Creek.	Caldwell Creek.	Lat 35°16'30", long 85°51'34", at bridge on U. S. Highway 41, 1.2 miles south of Mount View, Grundy County, Tenn.	1.88	1953-54	Oct. 27	*.52
Caldwell Creek.	Elk River....	Lat 35°17'05", long 85°53'14", near Bells Mill, 1.5 miles southwest of Mount View and 1.8 miles south of Pelham, Grundy County, Tenn.	21.6	1953-54	Oct. 27	*.43
Beans Creek..	....do.....	Lat 35°20'34", long 85°57'37", at county highway bridge, 0.5 mile east of Prairie Plains, Coffee County, Tenn.	18.1	1951, 1953-54	Oct. 28	*.38
Taylor Creek.	....do.....	Lat 35°15'48", long 86°08'12", at bridge 0.6 mile above mouth and ¾ mile southwest of Estill Springs, Franklin County, Tenn.	6.86	1953-54	Oct. 27	*8.42
Rock Creek...	....do.....	Lat 35°15'09", long 86°08'30", 450 ft upstream from mouth and 1.5 miles southwest of Estill Springs, Franklin County, Tenn.	41.2	1953-54	Oct. 27	*10.4
Boiling Fork Creek.	....do.....	Lat 35°09'28", long 86°00'57", at bridge near pumping station at Cowan, Franklin County, Tenn.	20.2	1933,1948, 1950-52 1954-55	Oct. 27	*.62
Norwood Creek	Boiling Fork Creek.	Lat 35°09'08", long 86°03'48", 3.1 miles southwest of Cowan and 3.6 miles southeast of Winchester, Franklin County, Tenn.	12.8	1953-54	Oct. 27	*.78
Boiling Fork Creek.	Elk River....	Lat 35°11'18", long 86°06'34", at bridge on U. S. Highway 41A, at Winchester, Franklin County, Tenn.	57.2	1948, 1950-54	Oct. 27	*6.88
Kitchens Creek.	....do.....	Lat 35°11'54", long 86°14'43", at Mansford, 1.3 miles northeast of Harmony, Franklin County, Tenn.	2.57	1953-54	Oct. 27	*2.02
Beans Creek..	....do.....	Lat 35°03'46", long 86°14'48", at Beans Creek, 1.5 miles south of Old Salem, Franklin County, Tenn.	19.0	1953-54	Oct. 27	*.90
Robertson Fork.	Richland Creek.	Lat 35°19'50", long 87°01'53", at county highway bridge at Bufords, Giles County, Tenn.	52.0	1949, 1952-54	Oct. 27	*.023
Richland Creek.	Elk River....	Lat 35°18'46", long 87°01'48", at bridge on U. S. Highway 31, 1.3 miles southwest of Bufords, Giles County, Tenn.	149		Aug. 7	*5.84
Big Creek....	Richland Creek.	Lat 35°16'31", long 87°03'30", at county highway bridge, 0.8 mile west of Riversburg, Giles County, Tenn.	85.2	1952-54	Oct. 27	*12.9

* Base flow.

Discharge measurements made at points other than gaging stations in the Cumberland and Tennessee River basins during the water year 1956--Continued

Tennessee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Richland Creek.	Elk River....	Lat 35°15'02", long 87°05'12", at county road bridge, at Wales, 4.6 miles northwest of Pulaski, Giles County, Tenn.	255		Aug. 7	*22.0
Pigeon Roost Creek.	Richland Creek.	Lat 35°14'00", long 87°05'04", at county highway bridge, 0.6 mile above mouth and 1.0 mile south of Wales, Giles County, Tenn.	22.9	1950-55	Oct. 5 Nov. 8 Dec. 7 Jan. 6 Mar. 7 Apr. 3 May 9 June 6 July 10	*1.62 *1.17 15.9 *5.03 39.6 22.8 9.03 *5.12 15.2
Sweetwater Spring.	Sweetwater Creek.	NE¼ sec. 1, T. 3 S., R. 11 W., 2⅔ miles northeast of Florence, Ala.	-		Jan. 4 Feb. 1 Mar. 20 Apr. 20 May 16 June 8 July 4 Aug. 7 Sept. 6	*.58 *.99 *1.20 *1.44 *1.19 *.92 *1.00 *.76 *.72
Gravelly Spring.	Sinking Creek.	NE¼ sec. 32, T. 3 S., R. 12 W., 9 miles southwest of Florence, Ala.	-		Jan. 4 Feb. 1 Mar. 20 Apr. 20 May 16 June 8 July 4 Aug. 7 Sept. 6	*3.46 *10.7 *15.4 *18.2 *14.0 *9.52 *9.28 *9.67 *7.22
Bear Creek...	Tennessee River.	Lat 34°38', long 88°09', in SE¼ sec. 20, T. 5 S., R. 11 E., at bridge on county road, 4 miles east of Tishomingo, Miss.	-	1913,1954	1954 Oct. 25 1955 Oct. 25 Apr. 24	 *21.8 *29.8 *540
Cripple Deer Creek.	Bear Creek...	Lat 34°42', long 88°18', in SW¼ sec. 26, T. 4 S., R. 10 E., Chickasaw meridian, at bridge on State Highway 25, 4½ miles north of Tishomingo, Miss.	-	1953-54	1954 Oct. 25 1955 Oct. 25 Apr. 24	 *.35 *.24 *5.25
Yellow Creek.	Tennessee River.	Lat 34°51', long 88°21', NW¼ sec. 3, T. 3 S., R. 9 E., Chickasaw meridian, at bridge ½ mile upstream from Southern Ry. bridge and 1.5 miles northwest of Burnsville, Miss. on State Highway 72.	-	1953	1954 Oct. 25 1955 Oct. 25 Apr. 24	 *2.31 *2.37 *16.0
Do.....	....do.....	Lat 34°50', long 88°18', S½ sec. 12, T. 3 S., R. 9 E., Chickasaw meridian, at bridge ½ mile upstream from Southern Ry. bridge and ¼ mile southeast from Burnsville, Miss. on State Highway 72.	-	1954	Oct. 25 1955 Oct. 25 Apr. 24	*.07 *.13 *37.8
Cypress Creek	....do.....	Lat 35°36'55", long 87°59'24", at county highway bridge ¼ mile southeast of Pope, Perry County, Tenn.	16.8	1953,1954	Nov. 22	*6.13
Boiling Springs Branch.	Duck River...	Lat 35°33'54", long 86°05'24", at ford, 2 miles northeast of Fredonia, Coffee County, Tenn.	3.29	1953-54	Oct. 27	*.056
Messick Creek	....do.....	Lat 35°33'02", long 86°04'57", at bridge on State Highway 53, 1.6 miles northeast of Fredonia, Coffee County, Tenn.	7.12	1953-54	Oct. 27	*.25
Wolf Creek...	Little Duck River.	Lat 35°28'51", long 86°03'51", at bridge on county highway, 1.0 mile upstream from mouth and 1.4 miles east of Manchester, Coffee County, Tenn.	19.2	1953-54	Oct. 27	*1.36
Hunt Creek...	....do.....	Lat 35°27'44", long 86°03'53", at bridge on U. S. Highway 41, 2 miles southeast of Manchester, Coffee County, Tenn.	9.93	1953-54	Oct. 27	*1.43
Little Duck River.	Duck River...	Lat 35°29'10", long 86°05'27", at bridge on U. S. Highway 41, northwest of Manchester, Coffee County, Tenn.	36.4	1948, 1950-55	Oct. 28	*6.14
Brewer Creek.	....do.....	Lat 35°29'35", long 86°07'59", 0.7 mile east of Blanton Chapel, Coffee County, Tenn., and 1.3 miles upstream from mouth.	8.64	1953-54	Oct. 28	*1.09
Crumpton Creek.	....do.....	Lat 35°25'19", long 86°08'10", 150 ft downstream from Wiley Creek and 0.1 mile north of Rutledge Falls, Coffee County, Tenn.	28.1	1953-54	Oct. 27	*4.19

* Base flow.

Discharge measurements made at points other than gaging stations in the Cumberland and Tennessee River basins during the water year 1956--Continued

Tennessee River basin--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Shipman Creek	Duck River...	Lat 35°27'32", long 86°18'04", at county highway bridge at Roseville, 0.8 mile upstream from mouth and 2.5 miles west of Normandy, Bedford County, Tenn.	5.92	1953-54	Oct. 28	*4.47
Thompson Creek.	....do.....	Lat 35°27'19", long 86°19'57", at county highway bridge, 1.5 miles upstream from mouth, 1.8 miles west of Roseville, and 3.0 miles west of Normandy, Bedford County, Tenn.	18.3	1953-54	Oct. 28	*1.99
Flat Creek...	....do.....	Lat 35°28'17", long 86°28'39", at State Highway 64, 0.6 mile upstream from mouth and 1.2 miles southwest of Shelbyville, Bedford County, Tenn.	49.6	1953-54	Oct. 28	*1.48
Big Rock Creek.	....do.....	Lat 35°30'16", long 86°46'03", at Double Bridges, 1.5 miles south of Oslin and 1.8 miles south of Verona, Marshall County, Tenn.	48.7	1953-54	Oct. 27	*1.53
Flat Creek...	....do.....	Lat 35°38'32", long 86°51'16", at bridge on State Highway 99, 1.0 mile upstream from mouth and 1.7 miles west of Pottsville, Maury County, Tenn.	41.6	1949, 1953-54	Oct. 27	*.002
Fountain Creek.	....do.....	Lat 35°28'18", long 86°57'22", at bridge on State Highway 50A, 1.6 miles southeast of Culleoka, Maury County, Tenn. and 1.8 miles above Globe Creek.	26.9	1953-55	Oct. 27	*.82
Big Bigby Creek.	....do.....	Lat 35°37'04", long 87°12'34", at site of former gaging station on State Highway 99, at Cross Bridges, 5.8 miles north of Mount Pleasant, Maury County, Tenn.	112	1938-39, 1944-45, 1953-54	June 26	*a12.5
Tumbling Creek.	....do.....	Lat 35°55'46", long 87°44'05", 1,000 ft above mouth and 4 miles southeast of Hurricane Mills, Humphreys County, Tenn.	51.2	1944,1953, 1955	July 26	*21.4
Cane Creek...	Buffalo River	Lat 35°38'53", long 87°39'39", at county highway bridge, ½ mile north of Farmers Exchange, Hickman County, Tenn.	45.1		Nov. 22	*24.9
Trace Creek..	Tennessee River.	Lat 36°04'58", long 87°46'32", at bridge on U. S. Highway 70, 0.3 mile east of Waverly, Humphreys County, Tenn.	17.4	1953-55	Feb. 17 Aug. 10	2,910 0
Leatherwood Creek.	....do.....	Lat 36°23'01", long 87°56'31", 800 ft above county highway bridge and 5 miles northwest of McKinnon, Houston County, Tenn.	-		Sept.26	*.82
Standing Rock Creek.	....do.....	Lat 36°26'13", long 87°59'57", at point of flow into Kentucky Lake, 4.9 miles south of Fort Henry, Stewart County, Tenn.	-		Sept.26	*2.35

* Base flow.
a Furnished by State of Tennessee, Department of Public Health.

The following table contains determinations of peak discharge made at crest stage by indirect methods or by current meter or computed from rating curve at points other than regular gaging stations.

Determinations of peak discharge during water year October 1955 to September 1956

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Staley Creek.	Middle Fork Holston River.	Lat 36°49'22", long 81°29'17", above fish hatchery on State Highway 16, 2½ miles southeast of Marion, Va.	8.34		Apr. 16	148
Cove Creek...	North Fork Holston River.	Lat 36°39'26", long 82°20'37", at bridge on State Highway 42, 2¼ miles northwest of Chatham Hill, Va.	17.3	1954	Apr. 16	1,260

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