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UNITED STATES DEPARTMENT OF THE INTERIOR

**SURFACE WATER SUPPLY**  
*of the* **UNITED STATES**  
**1934**

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**PART 2**

**SOUTH ATLANTIC SLOPE AND  
EASTERN GULF OF MEXICO BASINS**

---

Prepared in cooperation with the States of  
FLORIDA, MISSISSIPPI, NORTH CAROLINA  
SOUTH CAROLINA, AND VIRGINIA

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**GEOLOGICAL SURVEY WATER-SUPPLY PAPER 757**

UNITED STATES DEPARTMENT OF THE INTERIOR  
HAROLD L. ICKES, Secretary  
GEOLOGICAL SURVEY  
W. C. MENDENHALL, Director

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Water-Supply Paper 757

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# SURFACE WATER SUPPLY *of the* UNITED STATES 1934

PART 2

SOUTH ATLANTIC SLOPE AND  
EASTERN GULF OF MEXICO BASINS

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Prepared in cooperation with the States of  
FLORIDA, MISSISSIPPI, NORTH CAROLINA  
SOUTH CAROLINA, and VIRGINIA



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## ILLUSTRATION

FIGURE 1. Typical river-measurement station showing concrete well and house for water-stage recorder and staff gages, cable, and car.

# SURFACE WATER SUPPLY OF SOUTH ATLANTIC SLOPE AND EASTERN GULF OF MEXICO BASINS, 1934

## AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of flow made on streams in the United States during the year ending September 30, 1934.

The data presented in these reports were collected by the United States Geological Survey under the following authority contained in the organic law (20 Stat. L., p. 394):

*Provided*, That this officer [the Director] shall have the direction of the Geological Survey and the classification of public lands and examination of the geological structure, mineral resources, and products of the national domain.

The work was begun in 1888 in connection with special studies relating to irrigation. Since the fiscal year ending June 30, 1895, successive appropriation bills passed by Congress have carried the following items:

For gaging the streams and determining the water supply of the United States, and for the investigation of underground currents and artesian wells, and for the preparation of reports upon the best methods of utilizing the water resources.

### *Annual appropriations for the fiscal years ending June 30, 1895 to 1934*

1895-----	\$12, 500. 00	1911-17---	\$150, 000. 00	1928-----	\$147, 000. 00
1896-----	24, 500. 00	1918-----	175, 000. 00	1929-----	270, 500. 00
1897-99---	50, 000. 00	1919-----	148, 244. 10	1930-----	275, 000. 00
1900-----	70, 000. 00	1920-----	175, 000. 00	1931-----	565, 000. 00
1901-2-----	100, 000. 00	1921-23---	180, 000. 00	1932-----	711, 000. 00
1903-6-----	200, 000. 00	1924-25---	170, 000. 00	1933-----	600, 000. 00
1907-----	150, 000. 00	1926-----	165, 000. 00	1934-----	<sup>1</sup> 540, 000. 00
1908-10----	100, 000. 00	1927-----	151, 000. 00		

<sup>1</sup> Only \$340,000 available for expenditure.

In the execution of the work many private and State organizations have cooperated, either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 10.



Measurements of stream flow have been made at about 6,900 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1934, 2,940 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at other points. In connection with this work, data were also collected in regard to precipitation, evaporation, storage reservoirs, river profiles, and water power in many sections of the country and will be made available in water-supply papers from time to time.

### DEFINITION OF TERMS

The volume of water flowing in a stream—the “run-off” or “discharge”—is expressed in various terms, each of which has become associated with a certain class of work. These terms may be divided into two groups—(1) those that represent a rate of flow, as second-feet, gallons per minute, miner’s inches, and discharge in second-feet per square mile, and (2) those that represent the actual quantity of water, as run-off in inches, acre-feet, and millions of cubic feet. The principal terms used in this series of reports are second-feet, second-feet per square mile, run-off in inches, and acre-feet. They may be defined as follows:

“Second-feet” is an abbreviation for “cubic feet per second.” A second-foot is the rate of discharge of water flowing in a channel of rectangular cross section 1 foot wide and 1 foot deep at an average velocity of 1 foot per second. It is generally used as a fundamental unit from which others are computed.

“Second-feet per square mile” is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

“Run-off in inches” is the depth to which an area would be covered if all the water flowing from it in a given period were uniformly distributed on the surface. It is used for comparing run-off with rainfall, which is usually expressed in inches.

An “acre-foot”, equivalent to 43,560 cubic feet, is the quantity required to cover an acre to the depth of 1 foot. The term is commonly used in connection with storage for irrigation.

The following terms not in common use are here defined:

“Stage-discharge relation”, an abbreviation for the term “relation of gage height to discharge.”

“Control”, a term used to designate the natural section or stretch of the channel or artificial structure below the gage which determines the stage-discharge relation at the gage.

## EXPLANATION OF DATA

The data presented in this report cover the year beginning October 1, 1933, and ending September 30, 1934. At the beginning of January in most parts of the United States much of the precipitation in the preceding 3 months is stored in the form of snow or ice, or in ponds, lakes, and swamps, or as underground water, and this stored

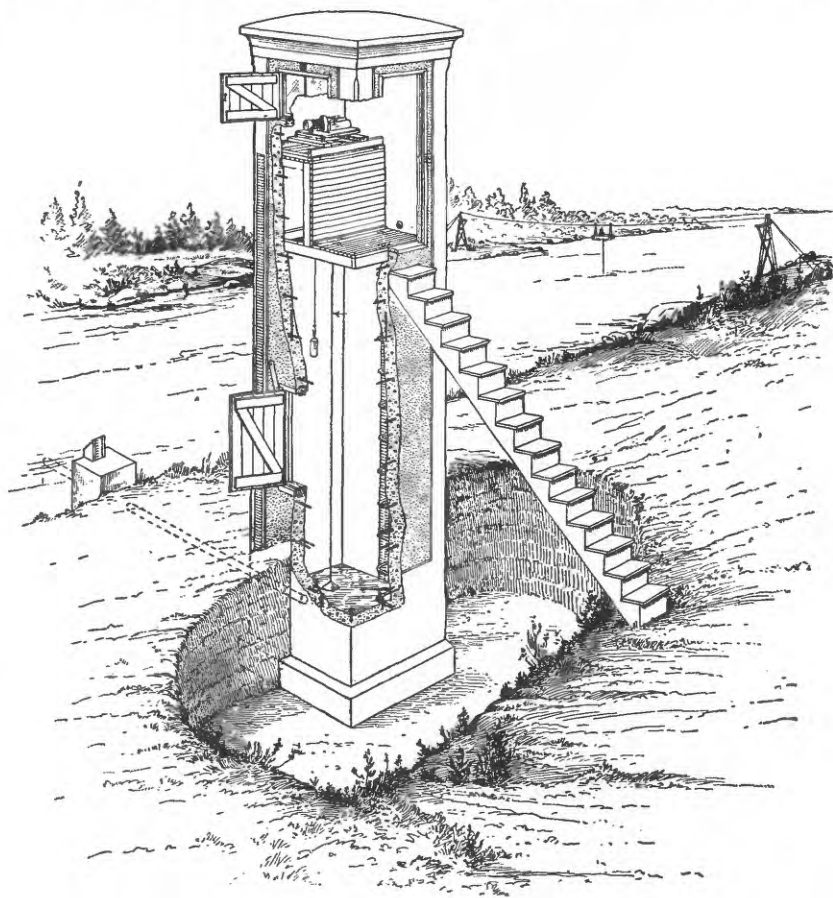


FIGURE 1.—Typical river-measurement station showing concrete well and house for water-stage recorder and staff gages, cable, and car.

water passes off in the streams during the spring break-up. At the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore the run-off for the year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supple-

ment the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings of a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. A typical gaging station, equipped with water-stage recorder and measuring cable and car, is shown in figure 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily gage height to these rating tables gives the daily discharge from which the monthly and yearly mean discharge is computed.

The data presented for each gaging station in the area covered by this report usually comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off.

The description of the station gives information in regard to the location and type of gage, diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Information under "Extremes" gives 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, and also the minimum discharge, if useful; and the minimum gage height except when it is of no importance. Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum represents the lowest discharge unless otherwise qualified.

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

In the table of monthly discharge the column headed "Maximum" gives the maximum daily discharge and not the discharge when the

water surface was at crest height. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" is the average flow in cubic feet per second during the month.

## ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily (1) on the permanency of the stage-discharge relation and (2) on the accuracy of observation of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that in general the daily records are accurate within 5 percent; "good", within 10 percent; "fair", within 15 percent; and "poor", within 20 percent or more.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and run-off in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and the discharge recorded does not show the water supply available for further development, as prior appropriations below the stations must first be satisfied.

The table of monthly discharge gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published, and that greater degrees of refinement in computations and records may be warranted with increased data and use of improved equipment.

In order to permit greater refinement in analysis and comparison of records for adjacent stations, the following changes have been made in the computation procedure: (a) Mean monthly discharge above 1,000 second-feet and monthly run-off above 10,000 acre-feet are expressed to four significant figures instead of three significant figures as formerly; (b) monthly run-off in acre-feet is computed from the total second-foot-days for the month and not from the mean dis-

charge for the month; (c) drainage areas above 1,000 square miles, if measured on topographic maps or if otherwise warranted are expressed to four significant figures instead of three as formerly. Some of the records in the series of reports for 1934 have been computed in accordance with the modified procedure.

## PUBLICATIONS

Investigation of water resources by the United States Geological Survey has consisted in large part of measurements of the volume of flow of streams and studies of the conditions affecting that flow, but it has comprised also investigation of such closely allied subjects as irrigation, water storage, water power, underground waters, and quality of waters. Most of the results of these investigations have been published in the series of water-supply papers, but some have appeared in the bulletins, professional papers, monographs, and annual reports.

The results of stream-flow measurements are now published annually in 12 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

- Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).
3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River Basins.
6. Missouri River Basin.
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. North Pacific slope basins, in three parts:
  - A. Pacific slope basins in Washington and upper Columbia River Basin.
  - B. Snake River Basin
  - C. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the United States Geological Survey containing data in regard to the water resources of the United States may be obtained or consulted as indicated below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.
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 local offices of the water-resources branch of the Geological Survey, as follows:

Augusta, Maine, Statehouse.  
 Boston, Mass., 945 Post Office Building.  
 Hartford, Conn., 203 Federal Building.

Albany, N. Y., 526 Federal Building.  
 Trenton, N. J., 228 Federal Building.  
 Harrisburg, Pa., 490 Education Building.  
 Charlottesville, Va., University of Virginia.  
 South Charleston, W. Va., Naval Ordnance Plant.  
 Asheville, N. C., 220 Post Office Building.  
 Columbia, S. C., 801 National Loan & Exchange Bank Building.  
 Ocala, Fla., Post Office Building.  
 Montgomery, Ala., Post Office Building.  
 Chattanooga, Tenn., 217 Post Office Building.  
 Columbus, Ohio, Engineering Experiment Station, Ohio State University.  
 Indianapolis, Ind., 319 Federal Building.  
 Urbana, Ill., 14 Post Office Annex.  
 Madison, Wis., 337N State Capitol.  
 St. Paul, Minn., 808 New Post Office Building.  
 Iowa City, Iowa, 402 Hydraulic Laboratory, University of Iowa.  
 St. Louis, Mo., 906 Customhouse, 1114 Market Street.  
 Rolla, Mo., Missouri Geological Survey Building, Missouri School of  
 Mines and Metallurgy.  
 Topeka, Kans., 305 Federal Building.  
 Fort Smith, Ark., Post Office Building.  
 Austin, Tex., State Highway Building.  
 Santa Fe, N. Mex., 3 United States Courthouse.  
 Tucson, Ariz., 210 Post Office Building.  
 Denver, Colo., 403 Post Office Building.  
 Salt Lake City, Utah, 303 Federal Building.  
 Idaho Falls, Idaho, 228 Federal Building.  
 Boise, Idaho, 429 Federal Building.  
 Helena, Mont., 421 Federal Building.  
 Tacoma, Wash., 406 Federal Building.  
 Portland, Oreg., 606 Post Office Building.  
 San Francisco, Calif., 303 Customhouse.  
 Los Angeles, Calif., 512 Eighth and Figueroa Building.  
 Honolulu, Hawaii, 225 Federal Building.

A list of the Geological Survey publications may be obtained by applying to the Director, United States Geological Survey, Washington, D. C.

Stream-flow records have been obtained at about 6,907 points in the United States, and the data obtained have been published in the reports tabulated as follows:

*Stream-flow data in reports of the United States Geological Survey*

[A=Annual report; B=Bulletin; W=Water-supply paper]

Report	Character of data	Year
10th A, pt. 2.....	Descriptive information only.....	
11th A, pt. 2.....	Monthly discharge and descriptive information.....	1884 to Sept. 1890.
12th A, pt. 2.....	do.....	1884 to June 30, 1891.
13th A, pt. 3.....	do.....	1884 to Dec. 31, 1892.
14th A, pt. 2.....	Monthly discharge (long-time records, 1871 to 1893).....	1884 to Dec. 31, 1893.
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 (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years).....	1896.
18th A, pt. 4.....	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1896-96.

*Stream-flow data in reports of the United States Geological Survey—Continued*

Report	Character of data	Year
W 15.....	Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers, and western United States.	1897.
19th A, pt. 4.....	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28.....	Measurements, ratings, and gage heights, Arkansas River and western United States.	1898.
20th A, pt. 4.....	Monthly discharge (also for many earlier years)	1898.
W 35 to 39.....	Descriptions, measurements, gage heights, and ratings.	1899.
21st A, pt. 4.....	Monthly discharge.	1899.
W 47 to 52.....	Descriptions, measurements, gage heights, and ratings.	1900.
22d A, pt. 4.....	Monthly discharge.	1900.
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.	1901.
W 75.....	Monthly discharge.	1901.
W 82 to 85.....	Complete data.	1902.
W 97 to 100.....	do.	1903.
W 124 to 135.....	do.	1904.
W 165 to 178.....	do.	1905.
W 201 to 214.....	do.	1906.
W 241 to 252.....	do.	1907-8.
W 261 to 272.....	do.	1909.
W 281 to 292.....	do.	1910.
W 301 to 312.....	do.	1911.
W 321 to 332.....	do.	1912.
W 351 to 362.....	do.	1913.
W 381 to 394.....	do.	1914.
W 401 to 414.....	do.	1915.
W 431 to 444.....	do.	1916.
W 451 to 464.....	do.	1917.
W 471 to 484.....	do.	1918.
W 501 to 514.....	do.	1919-20.
W 521 to 534.....	do.	1921.
W 541 to 554.....	do.	1922.
W 561 to 574.....	do.	1923.
W 581 to 594.....	do.	1924.
W 601 to 614.....	do.	1925.
W 621 to 634.....	do.	1926.
W 641 to 654.....	do.	1927.
W 661 to 674.....	do.	1928.
W 681 to 694.....	do.	1929.
W 696 to 709.....	do.	1930.
W 711 to 724.....	do.	1931.
W 726 to 739.....	do.	1932.
W 741 to 754.....	do.	1933.
W 756 to 769.....	do.	1934.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year, and are published under "miscellaneous discharge measurements" at the end of each report in the same relative order as the regular gaging stations. An index of the reports containing records obtained prior to 1904 has been published in Water-Supply Paper 119.

The following table gives, by years and drainage basins, the numbers of the papers on surface-water supply published from 1899 to 1934. The data for any particular station will, as a rule, be found in the reports covering the years during which the station was maintained. For example, data from 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

*Numbers of water-supply papers containing results of stream measurements, 1899-1934*

[For basins included see p. 6]

Year	1	2	3	4	5	6	7	8	9	10	11	12-A	12-B	12-C
1899 <sup>1</sup> .....	35	35, 36	36	36		36, 37	37	37	4 37, 38	38, 5 39	38, 6 39	38	38	38
1900 <sup>2</sup> .....	47, 8 48	48	48, 9 49	49	49	49, 10 50	50	50	50	50	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	11 65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	82, 83	82	82	12 82, 83	83	83	83	83	83	83	83	83	83
1903.....	87	87, 88	88	88	11 87, 88	88	88	88	88	88	88	88	88	88
1904.....	141, 24, 151, 25, 161, 26	125	125	129	11 128, 130	130, 17 131	131	132	133, 18 134	133, 18 134	133	133	133	133
1905.....	141, 65, 151, 66, 161, 67	167, 168	169	170	11 169, 173	172	172	174	175, 19 176	175, 19 176	177	178	178	178
1906.....	120, 121, 122, 123	203	205	206	206	206	206	210	211, 19 213	210, 19 213	213	214	214	214
1907-8.....	242	242	243	244	245	246	247	248	248	249	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, 19 271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20.....	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769

<sup>1</sup> Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply

Paper 39. Monthly discharge for 1899 in 21st Annual Report, part 4.

<sup>2</sup> James River only.

<sup>3</sup> Gallatin River.

<sup>4</sup> Green and Gunnison Rivers and Colorado River above Gunnison River.

<sup>5</sup> Mojave River only.

<sup>6</sup> Kings and Kern Rivers and south Pacific slope basins.

<sup>7</sup> Rating tables and index to Water-Supply Papers 47-52 and data on precipitation,

wells, and irrigation in California and Utah contained in Water-Supply Paper 52.

Monthly discharge for 1900 in 22d Annual Report, part 4.

<sup>8</sup> Wissahickon and Schuylkill Rivers to James River.

<sup>9</sup> Scioto River.

<sup>10</sup> Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.

<sup>11</sup> Tributaries of Mississippi River from east.

<sup>12</sup> Lake Ontario and tributaries to St. Lawrence River proper.

<sup>13</sup> Hudson Bay only.

<sup>14</sup> New England rivers only.

<sup>15</sup> Hudson River to Delaware River, inclusive.

<sup>16</sup> Susquehanna River to Yackin River, inclusive.

<sup>17</sup> Platte and Kansas Rivers.

<sup>18</sup> The Great Basin in California, except Truckee and Carson River Basins.

<sup>19</sup> Below junction with Gila River.

<sup>20</sup> Rogue, Umpqua, and Siletz Rivers only.



### COOPERATION

The work in the several States was done under cooperative agreements as follows: In Florida, with the State road department, C. B. Treadway, chairman, the Okeechobee flood-control district, A. W. Young, executive secretary, and the city of Tampa, R. E. L. Chancy, mayor; in Mississippi, with the Mississippi Geological Survey, W. C. Morse, director; in North Carolina, with the North Carolina Department of Conservation and Development, R. Bruce Etheridge, director; in South Carolina, with the South Carolina State Highway Department, Ben M. Sawyer, chief highway commissioner, and the city of Spartanburg, W. W. Griffin, chairman of board of water commissioners; and in Virginia, with the Conservation and Development Commission of Virginia, W. E. Carson, chairman.

Acknowledgment is due also to the Corps of Engineers, United States Army, and to the United States Weather Bureau for financial assistance in collecting records published herein.

Assistance in collecting records was also rendered by the following municipalities, organization, corporations, and individuals: In Alabama, by the Alabama Power Co.; in Florida, by the Florida Power Corporation; in Georgia, by the city council of Augusta, and the Georgia Power Co.; in North Carolina, by the cities of Durham and High Point, Carolina Power & Light Co., Cliffside Mills, and Virginia-Carolina Power Co.; in South Carolina, by the Broad River Power Co., Columbia Railway & Navigation Co., and Lexington Water Power Co.; in Virginia, by the Appalachian Electric Power Co., Virginia Electric & Power Co., and Virginia Public Service Co.

Funds for the rehabilitation of gaging stations, repairs, replacement of equipment, and improvement of records were allocated by the Public Works Administration from funds made available by the National Industrial Recovery Act.

### DIVISION OF WORK

The data for stations in the several States were collected and prepared for publication under supervision of district engineers as follows: In Alabama, Mississippi, and for the Apalachicola River Basin in Georgia, by C. E. McCashin (until Sept. 18, 1934) succeeded by D. H. Barber; in Florida and for the Altamaha, Satilla, St. Marys, and Suwannee River Basins in Georgia, by D. S. Wallace; in North Carolina, by E. D. Burchard; in South Carolina, and for the Savannah River Basin in Georgia, by A. E. Johnson; and in Virginia, by J. J. Dirzulaitis.

## JAMES RIVER BASIN

Jackson River at Barber, Va.

Location.- Chain gage at Smiths highway bridge, half a mile from Barber, Allegheny County, and half a mile below Falling Spring Creek. Zero of gage is 1,353.49 feet above mean sea level.

Drainage area.- 409 square miles.

Records available.- April 1925 to September 1934.

Extremes.- Maximum discharge recorded during year, 4,900 second-feet Mar. 28 (gage height, 9.40 feet); minimum (estimated), 60 second-feet Nov. 17, Feb. 10, 11, 28. 1925-34: Maximum discharge recorded, 6,850 second-feet Nov. 16, 1926 (gage height, 10.90 feet); minimum, 58 second-feet at times during September and October 1930 (gage height, 2.90 feet).  
Maximum stage known, about 25.6 feet March 1913 (discharge not determined).

Remarks.- Records good except those estimated for Dec. 21, Apr. 21, and for periods of ice effect, Nov. 15-18, Dec. 26-31, Jan. 29 to Feb. 14, Feb. 21, 22, Feb. 26 to Mar. 1, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	77	77	120	80	110	870	222	156	100	106	74
2	77	74	77	240	90	130	672	208	132	124	103	74
3	77	77	77	283	100	2,140	578	208	132	100	105	74
4	76	76	77	240	100	3,530	534	208	128	89	108	74
5	74	77	74	214	100	4,380	492	206	124	79	103	86
6	77	88	91	240	90	2,550	452	195	132	84	89	92
7	74	81	96	268	80	1,570	412	182	132	81	87	86
8	77	86	99	280	80	2,450	374	170	128	90	86	81
9	76	86	98	584	70	2,250	339	170	126	91	82	81
10	74	80	91	428	60	1,430	320	158	118	122	81	81
11	76	77	99	313	60	1,040	302	158	113	94	84	79
12	74	77	96	268	70	770	302	182	113	87	96	80
13	78	77	89	240	80	672	285	170	106	80	89	79
14	76	80	92	214	90	578	268	158	100	82	106	158
15	77	70	89	202	38	513	252	182	94	79	182	93
16	75	70	92	178	94	513	302	513	94	76	103	374
17	91	80	103	155	96	452	513	624	92	76	94	770
18	96	70	99	144	94	374	1,650	578	92	76	374	412
19	99	53	117	140	113	374	1,160	356	182	74	208	268
20	86	82	240	132	84	452	980	302	170	78	136	195
21	80	80	584	128	90	513	800	252	132	67	113	158
22	77	83	344	122	100	534	624	222	118	72	100	128
23	80	74	240	122	116	513	513	208	110	76	97	120
24	78	76	202	113	92	472	452	195	106	73	97	116
25	78	78	178	111	88	452	393	195	105	75	92	120
26	78	77	150	110	80	720	356	208	99	72	92	113
27	78	83	120	110	70	870	336	182	94	76	89	113
28	78	80	100	104	60	4,130	302	170	97	268	86	106
29	76	77	90	100		1,980	268	158	96	128	82	120
30	76	78	80	90		1,280	236	170	92	143	79	578
31	74		90	80		980		170		120	78	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				99	74	78.8	0.193		0.22			
November				91	60	78.1	.191		.21			
December				584	74	134	.328		.38			
January				880	80	215	.526		.61			
February				113	60	86.4	.211		.22			
March				4,380	110	1,249	3.05		3.52			
April				1,650	236	511	1.25		1.40			
May				624	158	235	.575		.66			
June				182	92	117	.286		.32			
July				268	67	93.9	.230		.27			
August				374	78	111	.271		.31			
September				770	74	166	.406		.45			
The year				4,380	60	258	.631		8.57			

## James River at Lick Run, Va.

Location.- Water-stage recorder at highway bridge at Lick Run, Botetourt County, three-quarters of a mile below confluence of Cowpasture and Jackson Rivers. Zero of gage is 978.30 feet above mean sea level.

Drainage area.- 1,369 square miles.

Records available.- April 1925 to September 1934.

Extremes.- Maximum discharge during year, 19,900 second-feet Mar. 28 (gage height, 14.07 feet); minimum, 158 second-feet Feb. 11 (gage height, 1.44 feet).  
1925-34: Maximum discharge, 28,500 second-feet Feb. 5, 1932 (gage height, 18.14 feet); minimum, 153 second-feet Oct. 11, 1930 (gage height, 1.51 feet).  
Flood of September 1877 reached a stage of 29.1 feet and that of March 1913, 27.2 feet (discharge not determined).

Remarks.- Records excellent except those estimated for Dec. 9-14, Jan. 30 to Feb. 6, and for period of ice effect, Feb. 25 to Mar. 1, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	241	241	258	362	250	280	2,900	802	514	271	456	208
2	237	241	254	472	290	386	2,400	762	467	359	520	205
3	245	237	254	750	330	3,410	2,000	730	416	289	493	201
4	250	245	255	724	320	15,500	1,720	730	352	271	503	219
5	245	258	258	658	310	17,200	1,520	724	358	258	426	271
6	241	280	271	640	320	11,600	1,420	700	367	233	353	250
7	233	280	280	756	316	5,840	1,280	670	391	229	307	245
8	237	284	307	1,480	278	8,040	1,200	628	538	220	276	233
9	233	271	300	1,720	246	11,200	1,160	581	406	233	258	220
10	237	254	300	1,240	205	5,480	1,240	558	372	320	250	212
11	233	245	300	1,000	216	3,860	1,280	564	343	307	241	208
12	233	254	310	828	254	2,840	1,280	569	325	271	458	201
13	241	250	310	712	307	2,220	1,280	564	311	250	411	201
14	245	254	310	628	271	1,940	1,200	530	293	229	334	205
15	245	258	298	547	276	1,720	1,080	530	280	229	302	236
16	241	258	284	520	289	1,470	1,160	682	271	220	467	1,740
17	293	250	289	488	293	1,350	2,900	1,120	258	203	582	3,760
18	280	245	302	456	320	1,200	6,600	1,000	394	201	994	1,860
19	284	250	355	431	325	1,160	4,880	860	712	197	1,240	1,120
20	280	262	769	431	273	1,330	3,370	756	688	186	769	795
21	258	262	1,360	411	280	1,780	2,640	670	520	193	509	610
22	245	271	1,120	382	314	1,830	2,160	610	396	205	366	498
23	245	262	808	386	334	1,720	1,880	680	343	189	325	426
24	245	258	634	367	270	1,620	1,620	676	316	169	296	396
25	241	258	525	358	240	1,520	1,420	616	298	169	271	352
26	237	258	488	339	220	1,880	1,240	569	284	193	276	339
27	233	250	446	334	210	4,160	1,120	564	289	220	276	311
28	233	258	370	330	200	17,200	1,040	520	258	841	258	302
29	237	258	316	307		8,400	965	503	245	750	245	334
30	237	254	267	280		4,880	874	525	298	762	229	554
31	237		348	250		3,510		530		658	224	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October					293	233	246	0.180	0.21			
November					284	237	257	.188	.21			
December					1,380	254	418	.305	.35			
January					1,720	250	600	.438	.50			
February					334	200	277	.202	.21			
March					17,200	280	4,726	3.45	3.98			
April					6,600	874	1,384	1.33	1.54			
May					1,120	503	662	.484	.56			
June					712	245	378	.276	.31			
July					841	186	302	.221	.25			
August					1,240	224	411	.300	.35			
September					3,760	201	559	.408	.46			
The year					17,200	186	900	.657	8.93			

## James River at Buchanan, Va.

Location.- Water-stage recorder at highway bridge near Chesapeake & Ohio Railway station, Buchanan, Botetourt County. Zero of gage is 802.56 feet above mean sea level.

Drainage area.- 2,084 square miles.

Records available.- August 1895 to September 1934.

Average discharge.- 35 years (1898-1912, 1913-34), 2,480 second-feet.

Extremes.- Maximum discharge during year, 32,000 second-feet Mar. 28 (gage height, 14.36 feet); minimum, 327 second-feet Oct. 3, 4, 8, 10, 11, 12 (gage height, 1.78 feet).  
1895-1934: Maximum gage height, 31 feet Mar. 27, 1913 (discharge not determined); minimum discharge, 255 second-feet several days in September 1932 (gage height, 1.60 feet).

Remarks.- Records excellent except those estimated for Jan. 6-16, Aug. 12, 17, and for period of ice effect, Feb. 24 to Mar. 1, which are fair. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	410	353	371	468	380	400	4,880	1,420	736	519	1,190	415
2	376	358	371	515	405	515	4,000	1,310	701	561	1,360	395
3	335	358	371	533	441	821	3,260	1,240	654	531	1,050	390
4	335	362	395	642	430	22,400	2,760	1,210	603	478	937	380
5	340	366	390	768	425	25,600	2,440	1,170	585	478	878	395
6	340	405	385	860	436	22,700	2,220	1,120	641	440	735	410
7	335	420	395	800	430	11,500	2,060	1,070	674	415	622	435
8	331	415	405	980	420	9,020	1,940	1,000	701	415	555	446
9	331	405	405	1,600	441	17,900	1,880	937	722	473	513	420
10	331	390	400	1,980	390	9,810	2,520	886	687	537	484	400
11	327	371	410	1,380	371	6,380	3,010	878	615	597	446	385
12	335	362	420	1,200	371	4,580	2,760	946	573	567	740	436
13	344	368	420	980	395	3,530	2,600	854	549	478	667	507
14	353	362	420	900	415	2,920	2,370	822	513	462	501	390
15	353	358	410	800	420	2,520	2,060	798	484	435	501	461
16	353	362	395	700	420	2,220	2,060	830	468	415	648	2,960
17	390	362	405	656	430	1,940	3,800	1,140	461	405	600	6,830
18	415	362	405	630	430	1,740	12,100	1,330	1,050	405	715	4,270
19	405	366	405	590	458	1,680	9,280	1,160	1,330	390	1,340	2,370
20	400	358	539	545	452	2,370	6,380	1,020	1,160	380	1,230	1,560
21	400	371	1,100	539	415	3,710	4,780	1,050	1,010	390	1,000	1,180
22	390	380	1,540	533	436	3,620	3,900	854	768	395	806	928
23	366	355	1,350	521	458	3,180	3,960	838	660	420	708	798
24	358	390	981	515	400	2,760	2,840	902	585	390	525	715
25	358	376	798	503	380	2,600	2,600	862	543	390	567	667
26	353	371	689	497	370	2,840	2,300	790	501	395	513	628
27	344	366	649	485	360	4,450	2,060	758	484	415	478	597
28	344	366	597	474	360	23,700	1,880	736	468	758	451	567
29	348	366	564	468		18,700	1,680	708	446	2,260	446	561
30	348	371	515	430		8,760	1,550	729	490	2,910	425	654
31	348		468	380		6,160		736		1,520	425	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					415	327	357	0.171		0.20		
November					420	353	373	.179		.20		
December					1,540	371	560	.269		.31		
January					1,980	380	735	.353		.41		
February					458	360	412	.195		.21		
March					25,600	400	7,452	3.58		4.13		
April					12,100	1,550	3,377	1.62		1.81		
May					1,420	708	968	.464		.53		
June					1,330	446	662	.315		.35		
July					2,910	380	634	.304		.35		
August					1,360	425	712	.342		.39		
September					6,830	380	1,053	.505		.56		
The year					25,600	327	1,450	.696		9.45		

## James River at Holcombs Rock, Va.

Location.- Water-stage recorder at Holcombs Rock, Bedford County, half a mile below Pedlar River.

Drainage area.- 3,250 square miles.

Records available.- August 1931 to September 1934. January 1900 to September 1915 (gage heights only).

Extremes.- Maximum discharge during year, 35,700 second-feet Mar. 29 (gage height, 17.66 feet); minimum, 120 second-feet July 20 (gage height, 3.30 feet); minimum daily discharge, 358 second-feet July 21.

1931-34: Maximum discharge, 42,400 second-feet (revised) Oct. 17, 1932 (gage height, 19.42 feet); minimum, that of July 20, 1934; minimum daily discharge, 288 second-feet Sept. 9, 1932.

Flood of March 1913 reached a stage of about 36 feet on present gage (discharge not determined).

Remarks.- Records excellent. Discharge estimated Feb. 11, 12. Flow regulated by power plants above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	426	537	541	744	526	701	7,110	2,050	1,350	883	1,640	744		
2	754	578	561	976	626	882	5,970	1,990	1,190	1,180	1,930	402		
3	756	530	564	744	612	3,040	5,040	2,000	1,150	1,110	1,630	788		
4	416	561	582	1,100	700	22,300	4,350	1,900	1,070	546	1,540	514		
5	540	666	651	1,320	718	30,600	3,580	1,980	1,070	1,090	1,390	558		
6	470	642	572	1,380	736	28,600	3,330	1,800	1,050	784	1,150	711		
7	556	705	520	1,330	746	15,000	3,020	1,740	1,580	717	1,010	952		
8	590	731	614	1,520	704	11,800	2,790	1,630	1,070	531	919	915		
9	473	580	678	2,040	754	19,500	2,930	1,510	1,240	704	770	735		
10	608	578	525	2,390	681	13,800	3,100	1,490	1,130	766	726	606		
11	443	720	600	1,890	700	9,330	3,940	1,420	1,140	930	623	694		
12	543	563	618	1,700	650	6,880	4,030	1,480	945	900	1,210	542		
13	436	583	632	1,400	760	5,160	3,510	1,350	862	743	1,080	1,190		
14	580	518	650	1,280	746	4,480	3,450	1,310	802	707	851	950		
15	836	710	686	1,190	659	3,600	2,570	1,460	849	734	879	654		
16	530	493	542	1,250	696	3,110	3,690	1,410	716	700	819	5,710		
17	718	393	542	1,120	610	2,990	4,680	1,600	772	482	723	9,670		
18	511	503	632	995	554	2,610	14,200	1,920	2,060	680	1,630	7,170		
19	760	504	652	942	694	3,700	13,200	1,890	5,740	550	3,060	3,840		
20	724	573	1,760	1,050	860	3,130	9,540	1,500	2,620	498	2,220	2,570		
21	656	575	2,030	834	776	4,690	7,150	1,560	1,990	358	1,520	1,960		
22	422	622	2,020	822	610	5,060	5,740	1,490	1,680	585	1,250	1,620		
23	773	626	1,620	950	716	4,590	5,160	1,590	1,290	597	988	1,360		
24	675	622	1,300	748	777	3,870	4,260	1,750	1,140	666	1,090	1,350		
25	452	536	1,150	815	623	3,340	4,060	1,560	1,100	500	1,450	956		
26	568	596	1,260	778	690	4,070	3,230	1,690	824	556	1,170	968		
27	572	597	1,060	856	760	4,710	3,510	1,300	1,010	596	940	1,020		
28	560	612	914	782	579	24,700	2,800	1,230	844	1,380	813	970		
29	602	574	902	694		25,100	2,390	1,340	774	2,330	744	946		
30	497	600	801	816		12,700	2,520	1,450	906	4,790	741	1,250		
31	513		628	721		9,950		1,400		1,630	742			
Month					Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October					778		416		573		0.176		0.20	
November					751		493		598		.184		.21	
December					2,030		520		872		.268		.31	
January					2,390		694		1,135		.349		.40	
February					860		526		690		.212		.22	
March					30,600		701		9,388		.289		3.33	
April					14,200		2,390		4,812		1.48		1.65	
May					2,050		1,230		1,606		.494		.57	
June					5,740		716		1,332		.410		.46	
July					4,790		358		943		.290		.33	
August					3,060		623		1,205		.371		.43	
September					9,670		402		1,745		.537		.60	
The year					30,600		358		2,086		.642		8.71	

## James River at Bent Creek, Va.

Location.- Water-stage recorder at highway bridge at Bent Creek, Appomattox County, 150 feet below Bent Creek and 1 mile below Gladstone. Zero of gage is 380.87 feet above mean sea level.

Drainage area.- 3,871 square miles.

Records available.- March 1925 to September 1934.

Extremes.- Maximum discharge during year, 35,800 second-feet Mar. 29 (gage height, 12.65 feet); minimum, 235 second-feet Oct. 23 (gage height, 2.30 feet); minimum daily discharge, 337 second-feet Sept. 3.  
1925-34: Maximum discharge recorded, 74,000 second-feet Aug. 17, 1928 (gage height, 18.80 feet); minimum, 222 second-feet Oct. 13, 14, 1930 (gage height, 2.21 feet); minimum daily discharge, 222 second-feet Oct. 13, 1930.

Remarks.- Records good except those estimated for June 7-14 and for periods of ice effect, Jan. 31, Feb. 4-8, 8-16, 18, 19, Feb. 21 to Mar. 1, which are fair. Flow regulated by power plants above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	753	726	800	639	930	910	9,180	2,630	1,830	1,530	1,600	965
2	418	768	817	1,210	217	832	7,770	2,330	1,160	668	2,050	837
3	862	744	815	1,060	847	2,790	6,450	2,100	1,730	1,300	1,810	397
4	843	820	528	1,010	940	18,000	5,370	2,800	743	1,410	1,800	1,010
5	874	680	980	1,370	506	30,500	4,530	2,020	1,580	714	1,320	898
6	697	940	948	2,070	810	29,400	4,100	2,470	1,450	1,060	1,290	675
7	666	944	684	2,140	754	20,300	3,600	1,910	1,800	260	1,190	1,030
8	578	915	536	1,560	860	14,300	3,420	1,670	1,750	1,150	1,260	2,490
9	454	904	596	1,800	720	17,900	3,370	1,890	1,500	578	1,350	726
10	641	837	812	2,780	940	18,300	4,020	1,660	1,550	1,010	726	678
11	728	742	724	2,550	1,140	12,600	4,170	1,550	1,500	963	876	880
12	702	942	818	2,180	550	9,240	4,270	1,720	1,300	1,000	1,000	781
13	608	563	824	1,760	950	7,270	4,250	1,760	1,100	854	1,310	925
14	558	554	840	1,770	880	5,290	3,310	1,310	1,000	1,070	1,440	2,950
15	498	624	819	1,480	950	4,960	4,170	1,640	926	1,030	902	1,450
16	718	944	856	1,400	916	3,960	5,280	2,330	1,030	425	982	3,080
17	943	828	808	1,510	787	3,270	5,300	1,430	896	924	637	11,600
18	1,270	662	499	1,220	1,050	3,900	13,300	1,710	1,490	808	1,770	9,710
19	758	802	955	1,260	470	2,270	15,700	2,230	6,110	772	3,030	5,400
20	670	630	2,320	1,180	954	4,500	11,400	2,260	2,500	761	2,930	3,470
21	942	861	2,600	1,500	900	2,030	3,870	1,460	2,610	604	1,940	2,710
22	1,310	809	2,200	704	940	6,370	6,980	1,800	2,050	449	1,690	2,020
23	403	774	2,530	1,140	930	5,540	6,020	1,760	1,680	516	1,160	1,810
24	1,020	882	2,090	1,440	810	5,110	5,110	1,820	1,180	658	1,360	1,200
25	942	852	1,310	1,010	940	4,360	4,700	1,850	1,250	762	1,310	1,560
26	857	924	1,550	908	790	4,780	4,160	1,720	1,350	346	2,120	1,370
27	598	436	1,730	930	1,340	4,800	3,850	1,930	922	656	1,310	926
28	558	922	1,290	1,180	1,390	18,500	3,550	1,340	1,150	752	954	1,530
29	903	792	1,130	722		31,300	3,290	1,450	984	2,500	858	1,140
30	572	802	1,030	890		17,000	2,730	1,700	888	3,920	1,010	1,560
31	795		1,280	810		11,800		1,770		3,470	837	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,270	403	742	0.292	0.23
November	954	436	801	.218	.24
December	2,600	499	1,165	.317	.37
January	2,780	639	1,394	.380	.44
February	1,380	470	889	.242	.25
March	31,300	882	10,470	2.85	3.29
April	15,700	2,730	5,789	1.68	1.76
May	2,630	1,310	1,379	.512	.59
June	6,110	742	1,564	.431	.43
July	3,920	425	1,091	.297	.34
August	3,030	726	1,435	.391	.45
September	11,600	397	2,186	.595	.66
The year	31,300	397	2,463	.671	9.10

## James River at Scottsville, Va.

Location.- Water-stage recorder at highway bridge at Scottsville, Albemarle County, 7 miles above Hardware River. Zero of gage is 253.39 feet above mean sea level.

Drainage area.- 4,571 square miles.

Records available.- February 1925 to September 1934.

Extremes.- Maximum discharge during year, 35,800 second-feet Mar. 29 (gage height, 14.70 feet); minimum, 435 second-feet Oct. 10 (gage height, 1.80 feet); minimum daily discharge, 582 second-feet Oct. 10.

1925-34: Maximum discharge recorded, 75,600 second-feet Aug. 17, 1928 (gage height, 20.92 feet); minimum, 302 second-feet Oct. 1, 1930 (gage height, 1.46 feet); minimum daily discharge, 307 second-feet Oct. 15, 1930.

Remarks.- Records excellent except those estimated for periods of ice effect, Jan. 29 to Feb. 3, Feb. 9-15, 20, Feb. 23 to Mar. 1, which are fair. Flow regulated by power plants above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	994	984	980	1,580	1,200	1,880	10,900	3,450	2,610	1,940	2,240	1,320
2	952	921	978	1,260	1,280	1,910	8,800	3,410	1,930	2,100	2,180	1,220
3	630	966	979	1,580	1,280	3,540	7,560	2,920	1,980	1,300	2,120	1,150
4	1,010	932	1,050	1,400	1,210	16,100	6,750	3,460	1,940	1,750	2,320	783
5	1,030	1,020	774	1,820	1,470	36,600	5,780	3,300	1,610	1,880	2,000	1,420
6	1,060	1,020	1,080	3,000	1,060	35,700	5,030	2,840	1,950	1,150	1,850	1,160
7	873	1,400	1,140	3,070	1,260	26,600	4,740	3,000	1,940	1,420	1,560	1,280
8	841	1,160	912	2,800	1,050	17,700	4,470	2,780	2,750	1,250	1,610	2,470
9	726	1,030	1,030	2,920	1,250	18,500	3,920	2,400	2,210	2,120	1,830	2,700
10	582	1,110	805	2,660	1,100	23,400	4,800	2,310	1,460	1,460	1,680	1,160
11	997	1,030	1,070	3,400	1,350	14,500	4,610	2,880	2,010	1,490	1,100	1,100
12	882	947	938	2,970	1,600	10,400	5,360	2,480	1,910	1,360	3,340	1,210
13	909	1,140	1,070	2,620	1,000	8,060	5,070	2,320	1,670	1,410	2,220	1,260
14	844	900	1,000	2,100	1,350	6,900	4,680	1,930	1,500	1,220	2,240	2,360
15	789	1,070	1,050	2,100	1,300	5,760	4,310	2,070	1,420	1,390	1,650	4,160
16	672	786	1,030	2,120	1,280	5,220	6,410	2,700	1,270	1,360	1,500	4,660
17	1,090	1,090	1,060	1,860	1,180	4,450	10,300	2,760	1,550	730	1,420	26,000
18	1,620	1,010	1,000	1,880	1,150	4,240	12,500	1,930	1,640	1,080	1,960	14,300
19	1,500	848	770	1,620	1,440	3,660	19,800	2,560	14,400	1,030	4,000	9,250
20	1,000	1,040	2,460	1,630	1,150	4,580	14,300	2,800	8,490	1,000	3,560	6,420
21	884	812	3,980	1,390	1,220	6,870	11,000	2,220	4,540	925	3,230	4,530
22	1,160	1,090	2,930	1,760	1,440	6,870	8,890	2,200	3,380	822	2,240	3,390
23	1,250	998	2,720	1,190	1,400	7,000	7,320	2,440	3,120	712	1,760	2,920
24	716	970	2,530	1,680	1,350	6,420	6,580	2,380	2,360	652	2,520	2,700
25	1,140	1,080	2,200	1,690	1,440	5,520	5,980	2,540	2,120	803	2,620	2,380
26	1,110	1,050	1,980	1,320	1,500	4,690	5,560	2,190	2,030	892	2,620	2,160
27	1,030	1,090	2,440	1,240	1,500	6,270	4,960	2,240	1,760	805	2,540	2,000
28	792	621	2,230	1,260	2,500	14,800	4,550	2,240	1,480	2,080	2,100	1,690
29	743	1,060	1,660	1,210		35,600	4,250	1,980	1,720	1,800	1,420	1,850
30	1,060	974	1,250	900		21,900	3,790	2,460	1,600	2,860	1,390	2,320
31	798		1,500	1,100		13,900		2,900		5,540	1,380	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	1,620			582			958			0.210	0.24	
November	1,400			621			1,005				.25	
December	3,980			770			1,500				.38	
January	3,400			900			1,904				.48	
February	2,500			1,000			1,335				.30	
March	36,600			1,880			12,240				3.09	
April	19,800			3,790			7,122				1.74	
May	3,460			1,930			2,584				.65	
June	14,400			1,270			2,677				.65	
July	5,540			652			1,494				.38	
August	4,000			1,100			2,109				.53	
September	26,000			783			3,711				.91	
The year.	36,600			582			3,231				7.07	

## James River at Cartersville, Va.

Location.- Water-stage recorder at highway bridge between Pemberton and Cartersville, Cumberland County, 1 mile below Willis River. Zero of gage is 161.57 feet above mean sea level.

Drainage area.- 6,242 square miles.

Records available.- January 1899 to September 1934.

Average discharge.- 34 years (1899-1904, 1905-34), 7,100 second-feet.

Extremes.- Maximum discharge during year, 49,000 second-feet Mar. 5 (gage height, 15.93 feet); minimum, 932 second-feet Oct. 11 (gage height, 0.56 foot); minimum daily discharge, 1,070 second-feet Oct. 11.  
1899-1934: Maximum discharge recorded, about 106,000 second-feet Dec. 30, 1901 (gage height, 26.7 feet); minimum, 320 second-feet Sept. 22, 1932 (gage height, 0.11 foot); minimum daily discharge, 348 second-feet Oct. 5, 1930.

Remarks.- Records excellent except those estimated for periods of ice effect, Jan. 29-31, Feb. 9, 10, 13, 14, 20, 21, Feb. 25 to Mar. 1, which are fair. Flow regulated by power plants above station.

Discharge in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,490	1,300	1,410	2,490	1,700	3,600	18,800	4,650	4,470	2,410	5,620	1,650
2	1,730	1,320	1,420	2,320	2,310	3,470	13,500	4,450	3,700	3,020	2,540	1,700
3	1,520	1,330	1,440	2,300	2,410	3,480	10,700	4,420	2,660	2,400	2,760	1,460
4	1,150	1,340	1,470	2,290	2,110	19,000	9,010	4,720	2,670	2,070	2,550	1,500
5	1,360	1,380	1,480	2,290	2,050	43,600	8,400	5,110	2,440	2,440	2,640	1,320
6	1,460	1,560	1,350	4,450	2,080	45,400	7,120	4,530	2,690	2,310	2,430	1,810
7	1,350	1,750	1,470	4,950	1,930	37,900	6,570	4,000	2,590	1,620	1,930	3,440
8	1,250	1,980	1,630	4,940	1,820	24,900	6,300	3,670	2,690	1,800	2,020	7,500
9	1,130	1,570	1,430	3,920	1,720	23,400	5,880	3,580	3,530	2,800	2,430	5,690
10	1,120	1,460	1,490	4,200	1,650	27,000	5,380	3,420	2,380	3,510	2,420	4,270
11	1,070	1,540	1,310	4,070	2,050	20,500	6,220	3,380	2,200	2,160	2,270	2,120
12	1,270	1,430	1,540	4,100	2,280	13,600	6,160	3,780	3,640	2,040	2,500	1,630
13	1,260	1,440	1,470	3,940	2,220	15,500	6,150	3,270	3,300	1,910	5,790	1,940
14	1,390	1,530	1,480	3,650	1,800	8,900	6,140	3,150	2,420	1,630	2,600	4,870
15	1,350	1,430	1,610	3,200	2,070	7,250	5,750	2,400	2,120	1,640	2,650	10,600
16	1,240	1,440	1,500	2,760	2,000	6,760	7,280	3,180	1,920	1,780	2,030	7,670
17	1,310	1,250	1,500	2,840	1,780	5,960	15,400	3,830	1,750	1,540	2,000	36,500
18	2,090	1,610	1,490	2,660	1,650	5,340	18,900	3,350	2,860	1,180	2,020	34,300
19	2,340	1,420	1,440	2,610	1,910	5,450	21,800	2,830	16,900	1,380	3,260	14,500
20	1,770	1,390	2,670	2,350	2,000	4,990	20,600	5,290	16,000	1,560	4,540	9,090
21	1,410	1,410	6,310	2,360	1,960	8,510	14,600	3,480	8,000	1,450	4,110	7,020
22	1,430	1,340	5,160	2,300	2,000	9,160	11,400	2,380	5,930	1,350	3,470	5,570
23	1,540	1,500	3,860	2,290	2,370	8,740	9,420	3,060	4,370	1,380	2,600	4,480
24	1,590	1,480	3,570	2,190	2,390	7,880	8,390	3,160	4,150	1,420	1,940	3,990
25	1,240	1,480	3,110	2,470	2,000	7,620	7,970	3,080	3,200	1,130	4,500	3,310
26	1,610	1,570	2,760	2,170	2,100	6,970	7,350	3,520	2,850	1,220	3,300	3,440
27	1,450	1,500	4,170	1,990	2,200	6,900	6,690	2,920	2,770	1,240	3,770	2,930
28	1,400	1,510	3,750	1,920	3,000	16,700	5,680	3,190	2,390	1,240	2,960	2,560
29	1,260	1,210	3,000	1,860		34,900	5,780	3,060	2,180	2,720	2,470	2,580
30	1,240	1,450	2,310	1,780		35,600	5,020	3,830	2,270	3,910	1,860	2,910
31	1,500		1,890	1,520		20,700		4,210		5,340	1,850	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,340	1,070	1,433	0.230	0.27
November	1,980	1,210	1,461	.234	.26
December	6,310	1,310	2,267	.363	.42
January	4,960	1,520	2,679	.461	.53
February	3,000	1,630	2,055	.329	.34
March	45,400	3,470	15,650	2.51	2.89
April	21,800	5,020	9,619	1.54	1.72
May	5,110	2,380	3,577	.673	.66
June	18,000	1,750	4,115	.659	.74
July	5,340	1,130	2,052	.329	.36
August	5,780	1,850	2,913	.467	.54
September	36,500	1,320	6,418	1.03	1.15
The year.	45,400	1,070	4,547	.728	9.90



## Warm Spring at Warm Springs, Va.

Location.- Water-stage recorder just above V-shaped weir about 200 feet below Warm Spring, at Warm Springs, Bath County.

Records available.- June 1928 to September 1934.

Extremes.- Maximum mean daily discharge during year, 2.61 second-feet Oct. 2; minimum, not determined.

1928-34: Maximum mean daily discharge, 5.45 second-feet Nov. 18, 1929 (flow probably increased somewhat by local surface run-off); minimum, 1.35 second-feet Feb. 25, 26, 1931.

Remarks.- Records good except those estimated Jan. 27 to Mar. 6, Mar. 8, 9, 27-30, May 13-15, June 30, Sept. 13-30, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.56	2.29	2.24	2.04			2.13	2.19	2.00	2.10	1.80	1.78
2	2.61	2.31	2.24	2.04			2.08	2.12	1.98	2.11	1.82	1.78
3	2.43	2.28	2.24	2.04			2.00	2.15	2.06	2.00	1.82	1.76
4	2.44	2.31	2.24	2.04		1.95	2.07	2.20	2.03	1.97	1.84	1.76
5	2.44	2.28	2.24	2.04			2.06	2.22	2.06	1.94	1.81	1.80
6	2.44	2.22	2.24	2.03			1.98	2.22	2.04	1.92	1.78	1.75
7	2.46	2.20	2.24	2.05		1.95	2.00	2.20	2.02	1.88	1.82	1.84
8	2.52	2.21	2.24	2.10		2.00	2.00	2.32	1.96	1.92	1.82	2.00
9	2.53	2.20	2.24	2.00		2.00	1.99	2.16	2.00	1.96	1.84	1.78
10	2.45	2.16	2.18	2.00		2.12	2.00	2.15	2.08	1.94	1.82	1.68
11	2.52	2.19	2.18	2.00		2.12	2.04	2.22	2.00	1.92	1.80	1.70
12	2.44	2.24	2.18	2.00		2.06	2.05	2.19	2.04	1.94	1.82	1.73
13	2.46	2.20	2.18	2.00		2.02	2.02	2.18	2.05	1.92	1.80	
14	2.44	2.16	2.18	1.98		2.02	2.08	2.17	2.06	1.93	1.76	
15	2.50	2.11	2.13	1.98		1.98	2.12	2.16	2.04	1.96	1.81	
16	2.47	2.18	2.12	1.97		1.98	2.14	2.16	2.04	1.90	1.80	
17	2.46	2.17	2.28	1.96		1.97	2.16	2.13	2.02	1.93	1.76	
18	2.42	2.19	2.16	1.98		1.96	2.23	2.09	2.02	1.90	1.79	
19	2.40	2.25	2.14	1.96		1.97	2.22	2.05	2.00	1.90	1.79	
20	2.44	2.24	2.12	1.96		1.98	2.24	2.06	2.02	1.88	1.80	
21	2.39	2.24	2.12	1.97		1.96	2.20	2.10	1.98	1.90	1.76	1.70
22	2.45	2.22	2.12	1.98		1.96	2.22	2.11	2.02	1.92	1.80	
23	2.34	2.20	2.10	1.99		1.97	2.19	2.04	2.00	1.92	1.78	
24	2.42	2.20	2.10	1.95		1.97	2.16	2.02	1.97	1.89	1.78	
25	2.24	2.20	2.00	1.96		1.98	2.16	1.98	1.97	1.88	1.82	
26	2.32	2.24	1.98	1.94		1.96	2.16	2.00	1.96	1.82	1.78	
27	2.24	2.24	2.04			2.00	2.13	2.06	1.99	1.88	1.72	
28	2.25	2.24	2.04			2.00	2.21	2.00	2.01	1.89	1.74	
29	2.30	2.24	2.04		1.95	2.00	2.12	2.00	2.00	1.86	1.76	
30	2.27	2.24	2.04			2.00	2.22	2.02	2.00	1.86	1.74	
31	2.23		2.04			2.06		2.02		1.80	1.78	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October					2.61	2.23	2.42					
November					2.51	2.11	2.32					
December					2.28	1.98	2.15					
January					2.10		1.99					
February							1.95					
March					2.12		1.99					
April					2.24	1.98	2.11					
May					2.32	1.98	2.12					
June					2.08	1.96	2.01					
July					2.11	1.80	1.92					
August					1.84	1.72	1.79					
September					2.00		2.73					
The year					2.61		2.03					

## Dunlap Creek near Covington, Va.

Location.- Chain gage at highway bridge 3 miles west of Covington, Allegheny County.  
Zero of gage is 1,294.21 feet above mean sea level.

Drainage area.- 166 square miles.

Records available.- December 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 3,020 second-feet Mar. 8 (gage height, 7.01 feet); minimum, 12 second-feet July 19-22, 24, 26.  
1928-34: Maximum discharge recorded, about 4,890 second-feet Nov. 18, 1929 (gage height, 9.46 feet); minimum, 8 second-feet Aug. 27, 28, 30, 1932 (gage height, 0.88 foot).

Remarks.- Records good except those estimated for Mar. 1 and for periods of ice effect, Nov. 15-18, Dec. 27-31, Jan. 30 to Feb. 2, Feb. 5, 6, 9-14, 17-28, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	25	26	29	18	40	216	71	33	18	113	18
2	17	26	26	41	20	39	178	67	32	20	113	18
3	17	25	27	54	24	1,000	144	64	28	18	110	18
4	18	27	28	49	20	1,890	126	64	28	16	104	17
5	17	32	27	47	20	2,260	119	64	32	18	78	21
6	21	34	29	44	20	1,060	104	58	35	16	61	20
7	17	32	32	48	21	550	93	56	30	15	51	20
8	17	29	27	60	22	2,200	93	53	27	18	43	18
9	18	27	27	64	21	1,300	96	51	27	24	36	17
10	17	27	27	56	20	550	155	51	26	29	33	17
11	18	27	32	49	19	323	166	56	24	21	29	16
12	18	27	30	44	19	216	166	53	24	20	27	16
13	20	27	30	43	22	178	165	48	22	18	25	16
14	19	29	29	40	24	144	140	46	20	17	25	19
15	18	26	29	37	26	122	122	49	20	16	23	25
16	19	25	29	36	26	111	144	62	20	16	68	117
17	24	26	29	35	24	96	575	62	18	13	56	144
18	23	27	29	35	23	90	1,060	58	27	14	47	84
19	21	29	32	30	22	90	505	53	33	12	43	60
20	21	29	78	30	22	132	340	53	32	13	35	47
21	21	29	75	28	26	230	259	48	25	13	29	38
22	21	25	56	28	26	216	190	46	23	12	27	34
23	21	27	46	29	24	180	166	48	21	15	25	29
24	21	26	38	28	22	166	144	46	19	13	23	34
25	23	25	34	27	20	178	126	44	18	13	23	27
26	23	26	36	26	18	323	113	42	18	13	25	27
27	23	27	27	26	17	940	103	38	18	37	26	25
28	24	27	25	26	16	1,740	88	37	18	35	23	22
29	24	27	24	25		678	82	36	16	113	20	30
30	25	26	25	20		397	75	37	16	117	19	69
31	25		26	16		290		36		72	20	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					25	16	20.1	C. 121		0.14		
November					34	25	27.3	.164		.18		
December					78	24	33.4	.201		.23		
January					64	16	37.0	.223		.26		
February					26	16	21.5	.130		.14		
March					2,260	38	572	3.45		3.98		
April					1,060	75	202	1.22		1.36		
May					71	36	51.5	.310		.36		
June					35	15	24.3	.146		.16		
July					358	12	36.2	.218		.25		
August					113	19	44.5	.268		.31		
September					144	15	35.4	.213		.24		
The year.					2,260	12	92.9	.560		7.61		

## Potts Creek near Covington, Va.

Location.— Chain gage at highway bridge a quarter of a mile above Hays Creek and 3 miles southwest of Covington, Alleghany County. Zero of gage is 1,257.61 feet above mean sea level.

Drainage area.— 158 square miles.

Records available.— December 1928 to September 1934.

Extremes.— Maximum discharge recorded during year, 2,760 second-feet Mar. 28 (gage height, 5.46 feet); minimum, 15 second-feet July 25 (gage height, 1.36 feet).  
1928-34: Maximum discharge recorded, 3,480 second-feet Nov. 18, 1929 (gage height, 6.27 feet); minimum, 13 second-feet Nov. 29, 1930 (gage height, 1.30 feet).

Remarks.— Records fair. Discharge estimated July 28, July 31 to Aug. 22, Aug. 24 to Sept. 29 and for periods of ice effect, Nov. 15-17, Dec. 27-31, Jan. 30 to Feb. 2, Feb. 5, 6, 9-15, 19-28.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	30	27	36	20	55	313	81	40	37	70	25
2	36	29	27	38	25	52	223	77	35	29		
3	29	29	29	39	29	402	185	76	32	23		
4	26	29	29	36	31	1,640	146	76	30	26		
5	23	31	30	36	27	2,060	136	72	30	26		
6	23	35	31	36	27	1,310	124	68	30	23	40	20
7	23	34	32	39	28	728	111	63	29	22		
8	23	32	31	49	29	1,070	114	50	28	22		
9	23	30	30	52	27	1,030	109	47	29	53		
10	22	29	29	44	25	620	295	47	29	63		
11	21	29	31	41	23	414	254	58	28	40	60	100
12	23	28	31	38	23	300	283	66	27	30		
13	27	29	30	39	27	228	260	52	26	25		
14	23	28	30	39	30	188	217	45	24	23		
15	26	27	29	36	34	155	164	47	24	22		
16	26	26	30	35	36	136	180	58	25	22	24	40
17	32	27	29	34	36	118	535	62	23	21		
18	31	29	29	30	28	103	950	47	29	22		
19	30	31	29	32	26	103	610	46	49	20		
20	29	31	118	34	25	210	468	42	44	20		
21	28	29	89	29	30	294	344	40	34	18	30	77
22	26	28	54	30	30	233	260	37	29	18		
23	27	29	43	32	29	219	217	41	26	18		
24	27	29	36	31	26	192	167	38	26	16		
25	27	29	34	30	23	196	146	40	25	15		
26	27	29	34	39	21	247	124	38	24	21	25	30
27	27	28	30	29	20	515	114	37	23	61		
28	28	29	27	28	19	2,060	100	36	24	350		
29	28	28	26	28		798	91	36	23	76		
30	28	29	27	23		572	85	37	37	132		
31	29		28	18		397		42		100		
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					36	21	26.5	0.168		0.19		
November					35	26	29.3	.185		.21		
December					118	26	35.8	.227		.26		
January					52	18	34.8	.220		.25		
February					36	19	26.9	.170		.18		
March					2,060	52	537	3.40		3.92		
April					950	95	244	1.54		1.72		
May					81	36	51.4	.325		.37		
June					49	23	29.4	.186		.21		
July					350	15	45.0	.285		.33		
August							45.9	.291		.34		
September							40.7	.258		.29		
The year					2,060	15	96.2	.609		8.27		

## Cowpasture River near Clifton Forge, Va.

Location.- Chain gage at iron highway bridge  $1\frac{1}{2}$  miles above junction with Jackson River and 4 miles southeast of Clifton Forge, Alleghany County. Zero of gage is 1,006.93 feet above mean sea level.

Drainage area.- 456 square miles.

Records available.- May 1907 to August 1908, March 1925 to September 1934.

Extremes.- Maximum discharge recorded during year, 5,800 second-feet Mar. 28 (gage height, 8.80 feet); minimum, 47 second-feet July 23 (gage height, 1.78 feet).  
1907-8, 1925-34: Maximum gage height recorded, 10.0 feet, original datum, June 14, 1907 (discharge not determined); minimum discharge, 38 second-feet Sept. 2, 1932 (gage height, 1.70 feet).  
Maximum stage known, 20.8 feet in March, 1913 (discharge not determined).

Remarks.- Records good except those estimated for periods of ice effect, Nov. 15-18, Dec. 27-31, Jan. 29 to Feb. 22, Feb. 25 to Mar. 1, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	79	85	132	70	120	920	233	188	111	145	79
2	81	79	81	188	90	185	759	220	173	132	125	77
3	83	75	79	229	120	1,260	575	213	153	115	104	74
4	79	83	87	203	110	4,840	619	220	138	97	104	77
5	74	83	85	185	110	5,080	492	220	130	87	99	99
6	71	99	91	220	100	2,960	442	206	142	83	95	91
7	67	106	97	291	100	1,560	394	197	138	81	87	85
8	59	97	93	467	90	2,170	372	185	170	75	81	85
9	57	91	87	519	80	2,660	350	176	140	74	77	74
10	77	87	83	394	70	1,480	350	165	128	81	74	71
11	77	79	89	310	70	1,120	330	159	118	102	75	67
12	67	77	95	254	90	855	350	170	113	83	310	64
13	72	72	91	236	100	666	310	170	108	75	169	71
14	87	72	87	226	90	575	291	159	102	67	140	79
15	69	70	89	210	90	519	272	156	97	64	118	77
16	81	70	97	197	90	418	330	194	91	67	125	575
17	108	60	91	179	90	394	1,050	233	91	64	113	1,330
18	111	70	91	165	100	372	1,720	226	128	61	442	546
19	111	87	108	158	110	350	1,190	213	291	56	385	330
20	106	93	330	145	80	418	920	197	291	49	372	226
21	93	97	418	138	90	467	759	182	185	53	236	182
22	87	91	291	138	100	492	604	165	142	56	176	151
23	87	91	210	138	116	467	519	236	122	47	153	140
24	85	91	165	135	93	442	442	272	115	59	135	132
25	81	81	153	130	80	418	394	213	111	59	122	122
26	81	79	142	125	70	492	550	191	102	57	118	118
27	74	75	120	120	60	1,190	330	197	95	66	118	108
28	69	81	100	120	60	5,560	310	188	89	89	102	104
29	79	74	80	110		2,360	272	179	87	128	93	115
30	81	83	70	90		1,400	254	194	91	148	87	254
31	72		90	70		1,050		194		229	83	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	111	57	81.5	0.179	0.21
November	106	60	82.4	.181	.20
December	418	70	125	.274	.32
January	519	70	201	.441	.51
February	120	60	89.9	.187	.21
March	5,560	120	1,366	3.00	3.46
April	1,720	254	558	1.18	1.32
May	272	186	198	.434	.50
June	291	87	156	.268	.33
July	229	47	84.4	.185	.21
August	635	74	168	.346	.40
September	1,330	64	187	.410	.46
The year.	5,560	47	272	.566	8.13

## Craig Creek at Parr, Va.

Location.- Chain gage at Chesapeake & Ohio Railway bridge 600 feet from Parr, Botetourt County, and 12 miles above mouth. Zero of gage is 992.50 feet above mean sea level.

Drainage area.- 331 square miles.

Records available.- April 1925 to September 1934.

Extremes.- Maximum discharge recorded during year, 7,690 second-feet Mar. 28 (gage height, 10.60 feet); minimum, 34 second-feet Oct. 3, Feb. 14 (gage height, 3.47 feet).  
1925-34: Maximum discharge recorded, 16,900 second-feet Aug. 17, 1928 (gage height, 15.60 feet); minimum, 29 second-feet Oct. 1, 5, 1930 (gage height, 3.42 feet).

Remarks.- Records good except those estimated for periods of ice effect, Jan. 30 to Feb. 1, Feb. 10, 11, Feb. 25 to Mar. 1, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	43	45	41	50	50	688	253	82	75	157	52
2	35	43	46	60	52	72	568	234	69	65	394	49
3	35	44	47	62	56	268	464	223	65	57	238	47
4	36	44	49	64	59	4,700	417	208	61	52	253	47
5	36	45	49	66	64	5,020	372	194	61	49	184	47
6	35	53	52	69	56	3,800	350	184	62	45	133	47
7	36	54	52	72	57	1,750	329	170	61	45	108	60
8	37	54	52	85	61	1,750	308	154	110	43	89	54
9	36	52	49	110	59	2,440	308	148	83	201	82	50
10	36	47	49	103	55	1,270	902	139	89	187	75	49
11	36	45	54	93	55	790	790	130	82	93	68	46
12	38	45	52	95	59	568	755	125	75	72	64	43
13	40	45	52	82	49	464	688	120	66	72	69	46
14	40	45	50	77	41	372	595	115	60	69	71	52
15	40	45	50	71	64	329	464	110	56	61	68	48
16	40	45	50	66	56	288	440	112	54	56	62	1,100
17	45	45	50	64	60	260	1,020	110	52	48	59	1,970
18	47	45	49	61	59	238	3,800	103	53	45	61	568
19	49	43	53	59	55	223	1,550	95	125	41	64	350
20	46	47	125	59	41	488	1,100	89	216	40	59	260
21	43	47	308	59	61	1,180	790	85	142	40	61	198
22	43	48	154	57	59	755	595	85	105	45	54	157
23	41	47	103	61	57	595	514	82	89	49	52	130
24	41	45	83	59	61	468	464	77	72	57	56	110
25	41	45	72	56	60	464	440	75	64	45	61	93
26	40	47	69	56	55	568	417	69	57	43	69	85
27	40	48	66	56	50	1,180	372	69	54	57	66	79
28	40	47	61	54	45	7,180	350	68	54	174	74	75
29	40	45	59	53		2,320	308	69	56	374	72	89
30	42	47	56	50		1,270	288	75	61	288	62	184
31	45		62	50		665		80		230	56	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October					49	35	39.7	0.120	0.14			
November					54	43	46.5	.140	.16			
December					308	45	69.9	.211	.24			
January					110	50	67.1	.203	.23			
February					64	41	55.6	.168	.17			
March					7,180	50	1,555	4.09	4.72			
April					3,800	268	681	2.06	2.50			
May					253	68	124	.375	.43			
June					216	52	77.9	.235	.26			
July					394	40	91.9	.278	.32			
August					394	52	99.7	.301	.35			
September					1,970	43	206	.622	.69			
The year.					7,180	35	244	.737	10.01			

## Meadow Creek at Newcastle, Va.

Location.- Water-stage recorder 500 feet above Newcastle-Salem highway bridge and just outside town limits of Newcastle, Craig County.

Drainage area.- 13.8 square miles.

Records available.- September 1929 to September 1934.

Extremes.- Maximum discharge during year, 118 second-feet Mar. 4 (gage height, 3.02 feet); minimum, 0.9 second-foot July 6 (gage height, 0.96 foot), 1929-34: Maximum discharge, 242 second-feet Oct. 2, 1929 (gage height, 3.64 feet); minimum, 0.8 second-foot Sept. 4, 1930 (gage height, 0.91 foot).

Remarks.- Records good except those estimated May 7-15 and for periods of ice effect, Nov. 16-18, Dec. 27, 29-31, Jan. 18, Jan. 30 to Mar. 2, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.9	10	10	3.2	3.0	3	24	11	5.0	5.0	19	4.3
2	6.4	10	10	3.2		4	22	10	4.8	3.2	17	3.2
3	5.9	10	10	3.0		84	21	10	4.5	2.1	17	3.0
4	5.4	10	10	3.2		105	21	9.7	4.5	1.9	16	3.2
5	5.4	11	9.7	4.1		73	19	9.4	4.8	2.3	17	4.3
6	5.4	11	10	5.0	3.0	34	16	9.4	6.2	1.5	17	3.4
7	5.2	10	9.7	6.2		21	17	9.0	7.9	1.5	16	3.4
8	5.2	10	9.2	6.9		32	16	9.0	5.9	3.2	15	3.8
9	5.2	11	8.9	5.7		30	19	8.5	5.4	5.7	13	3.2
10	5.2	10	8.9	4.5		20	28	8.5	4.5	4.8	10	2.8
11	6.2	10	9.7	4.1	2.0	15	30	8.5	3.4	4.5	8.7	2.3
12	5.7	10	9.2	3.8		13	30	8.0	3.2	8.0	8.9	2.3
13	6.2	10	9.4	3.8		13	29	8.0	3.0	10	7.6	3.8
14	5.9	11	9.4	3.6		12	28	7.5	3.0	5.0	5.7	3.6
15	5.7	12	9.4	3.0		12	26	7.5	3.0	3.2	5.0	6.2
16	5.7	11	9.7	2.8	2.0	12	26	7.2	2.8	2.3	5.4	44
17	7.6	11	9.4	2.6		12	58	7.2	3.2	2.3	5.7	32
18	5.9	11	9.2	2.5		12	80	6.5	10	1.9	4.8	24
19	6.2	11	14	2.3		12	52	6.2	11	1.9	4.1	20
20	6.4	11	18	2.6		13	36	5.7	6.6	1.7	3.2	17
21	6.6	10	9.6	2.3	2.0	13	27	5.2	4.8	2.1	3.0	16
22	6.9	10	6.9	2.1		14	23	4.8	3.8	5.7	3.6	15
23	7.2	9.7	5.7	2.1		14	20	4.3	3.4	3.6	3.8	15
24	7.4	9.7	5.0	2.3		13	20	4.5	2.8	2.3	9.2	15
25	7.9	9.7	4.1	2.3		14	18	4.3	2.1	2.5	16	14
26	8.9	9.7	3.8	2.3	2.0	14	16	4.3	1.9	7.6	16	14
27	9.4	10	3.5	2.3		50	16	3.8	2.1	12	16	14
28	9.4	10	3.0	2.1		100	14	3.6	1.7	30	12	15
29	9.2	10	3.0	2.1		73	12	3.8	1.9	20	8.2	16
30	9.7	10	3.0	2.0		41	11	6.6	2.3	22	6.9	21
31	10		3.0	2.0		28		5.2		17	5.4	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					10	5.2	6.75	0.459		0.56		
November					12	9.7	10.3	.746		.83		
December					18	3.0	8.21	.565		.69		
January					6.9	2.0	3.23	.224		.27		
February							2.54	.184		.19		
March					105	3	29.2	2.12		2.44		
April					80	11	25.8	1.87		2.08		
May					11	3.6	7.01	.562		.59		
June					11	1.7	4.32	.313		.35		
July					30	1.5	6.35	.460		.53		
August					19	3.0	10.2	.739		.85		
September					44	2.3	11.5	.873		.93		
The year.					105	1.5	10.5	.761		10.32		

## Johns Creek at Newcastle, Va.

Location.- Chain gage at highway bridge 500 feet east of town limits of Newcastle, Craig County, and a quarter of a mile above mouth.

Drainage area.- 106 square miles.

Records available.- April 1926 to September 1934.

Extremes.- Maximum discharge recorded during year, 2,150 second-feet Mar. 27, 28 (gage height, 8.05 feet); minimum, 9 second-feet Oct. 1, 4, 5, 9-11.  
1926-34: Maximum discharge recorded, 3,500 second-feet Aug. 16, 1926 (gage height, 9.10 feet); minimum, 7 second-feet Aug. 11, Sept. 3, 6, 7, 1930 (gage height, 2.26 feet).

Remarks.- Records good except those estimated Dec. 4, 27, and for periods of ice effect, Jan. 18, 21, Jan. 30 to Mar. 3, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	14	15	21		20	227	63	26	18	19	20
2	10	14	14	22		30	201	62	22	17	12	19
3	10	14	15	24		100	176	58	21	16	40	18
4	9	15	16	24		1,740	152	55	20	14	40	18
5	9	14	16	26		1,940	123	51	22	14	32	22
6	10	17	17	24		960	102	49	28	16	27	28
7	10	17	16	33		650	102	48	32	13	24	22
8	10	16	16	50		740	109	43	33	16	21	22
9	10	15	16	46		695	109	40	33	109	19	20
10	9	14	17	40		365	340	38	32	48	18	19
11	9	14	16	35		254	274	39	30	24	17	16
12	10	15	15	31		162	295	38	25	21	22	16
13	11	15	16	29		131	254	35	21	21	21	16
14	10	14	16	26		116	218	34	21	20	19	16
15	10	16	15	26		102	184	34	19	18	18	16
16	11	21	17	24		96	184	37	18	16	19	317
17	14	15	16	24		89	365	34	17	16	26	365
18	13	15	15	22		77	740	32	23	14	27	192
19	13	15	23	21		89	420	29	50	13	26	109
20	11	15	83	21		224	340	26	45	13	26	78
21	12	15	77	21		295	254	25	38	12	21	63
22	11	15	40	21		234	201	24	34	19	20	52
23	12	15	30	20		215	166	25	26	21	20	43
24	12	15	28	19		162	152	24	22	15	26	38
25	11	14	23	20		179	137	23	20	13	34	32
26	12	14	23	20		234	116	22	19	14	38	29
27	12	14	23	19		790	96	22	17	24	58	29
28	12	15	23	19		1,560	84	20	16	236	38	28
29	13	14	24	17		605	78	22	16	78	32	42
30	13	15	23	16		340	73	28	16	45	26	152
31	13		22	15		254		34		32	22	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October					14	9	11.0	0.104	0.12			
November					21	14	15.0	.142	.16			
December					83	14	23.4	.221	.25			
January					50	15	25.0	.236	.27			
February							16.0	.170	.18			
March					1,940	20	434	4.09	4.72			
April					740	73	209	1.97	2.20			
May					63	20	35.9	.339	.59			
June					50	16	25.4	.240	.27			
July					236	12	31.2	.294	.34			
August					58	12	26.1	.246	.28			
September					365	16	62.0	.685	.65			
The year.					1,940	9	76.8	.725	9.83			

## Catawba Creek near Fincastle, Va.

Location.- Chain gage at highway bridge at Kyles Mills, 4 miles northeast of Fincastle, Botetourt County. Zero of gage is 994.05 feet above mean sea level.

Drainage area.- 104 square miles.

Records available.- December 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 818 second-feet Mar. 4, Sept. 12 (gage height, 7.40 feet); minimum, 4 second-feet Oct. 4-10, 24, 25.

1928-34: Maximum discharge recorded, about 2,480 second-feet Oct. 17, 1932 (gage height, 13.98 feet); minimum, 4 second-feet Sept. 30, Oct. 4-10, 24, 25, 1933.

Remarks.- Records fair. Discharge estimated Nov. 6-21, Dec. 21, 22, May 14-18, and for periods of ice effect, Jan. 30, 31, Feb. 10, 11, Feb. 24 to Mar. 2.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	8	5	16	18	12	16	104	104	27	30	127	27		
2	12	5	14	16	13	20	88	104	27	31	145	26		
3	5	5	9	16	15	93	88	98	27	30	53	22		
4	4	6	9	18	16	458	93	104	26	33	53	21		
5	4	5	12	17	17	754	88	98	27	31	62	22		
6	4	6	9	21	16	526	83	88	27	30	55	22		
7	4		11	21	16	323	88	93	68	30	45	22		
8	4		12	26	16	227	93	83	98	64	41	22		
9	4	7	12	21	18	175	151	83	139	45	38	22		
10	4		16	16	16	145	175	78	110	30	37	21		
11	5		16	16	14	127	133	73	53	30	36	23		
12	5	8	16	18	17	139	110	73	30	29	36	323		
13	6		16	19	16	73	98	78	28	30	39	116		
14	6		16	16	15	54	104	70	27	29	36	30		
15	5	13	16	12	12	55	104	65	27	30	37	22		
16	7	8	12	16	12	54	110	60	27	29	47	188		
17	6		16	16	13	54	253	55	25	28	35	133		
18	6		16	16	14	53	214	50	63	26	31	110		
19	7	104	17	16	12	55	175	49	121	25	30	98		
20	6		12	12	12	253	151	46	78	24	28	83		
21	6		20	12	12	175	139	41	59	27	26	75		
22	5	10	40	12	16	163	115	33	37	26	26	60		
23	5	12	21	12	29	145	151	31	30	23	98	46		
24	4	10	21	10	20	163	240	31	31	23	163	38		
25	5	9	21	8	18	115	201	31	30	24	93	39		
26	5	14	26	9	16	151	163	31	30	61	64	38		
27	5	12	26	11	12	214	151	31	30	214	31	33		
28	5	13	18	12	12	474	151	80	31	295	28	28		
29	5	14	16	12		227	139	27	30	523	22	45		
30	5	16	16	10		151	115	27	30	145	25	37		
31	6		21	8		104		27		88	28			
Month					Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October					12		4		5.4		0.032		0.06	
November					16				8.3		.030		.09	
December					104		9		21.5		.277		.24	
January					26		8		15.1		.145		.17	
February					29		12		15.2		.146		.15	
March					754		16		185		1.73		2.05	
April					253		83		136		1.31		1.46	
May					104		27		61.0		.537		.68	
June					139		25		47.1		.453		.51	
July					323		23		60.7		.534		.67	
August					163		22		52.1		.591		.58	
September					323		21		59.6		.573		.64	
The year					754		4		55.8		.537		7.30	



## North River at Goshen, Va.

Location.- Chain gage at highway bridge at Goshen, Rockbridge County, 500 feet below junction of Mill Creek and Calpasture River. Zero of gage is 1,331.69 feet above mean sea level.

Drainage area.- 190 square miles.

Records available.- March 1925 to September 1934.

Extremes.- Maximum discharge recorded during year, 3,140 second-feet Mar. 28 (gage height, 8.20 feet); minimum, 8 second-feet July 21-25, 27 (gage height, 1.86 feet). 1925-34: Maximum discharge recorded, 7,820 second-feet Oct. 17, 1932 (gage height, 9.75 feet); minimum, 8 second-feet July 22, 1926, and numerous days in September and October 1930, September and October 1932, and July 1934.

Remarks.- Records good except those estimated for periods of ice effect Jan. 30, 31, Feb. 9-11, Feb. 26 to Mar. 1, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	16	18	41	26	10	455	83	99	21	36	18
2	17	16	18	48	23	33	374	77	87	25	32	16
3	16	19	18	52	26	1,180	296	74	74	19	32	15
4	16	18	18	52	30	2,590	254	87	64	16	24	16
5	16	18	18	58	31	2,020	219	74	54	16	18	25
6	18	26	18	70	30	1,150	199	72	51	12	16	16
7	17	22	18	88	28	630	180	69	49	12	15	16
8	16	19	18	142	28	840	162	64	42	10	15	17
9	16	18	17	155	20	810	145	61	40	16	13	17
10	16	18	16	114	15	690	137	61	38	12	12	16
11	15	18	16	90	20	510	125	61	32	12	10	16
12	16	18	15	80	26	338	121	56	29	10	19	13
13	19	18	21	83	23	286	106	54	26	36	25	26
14	19	16	21	76	22	254	96	40	24	34	22	31
15	18	16	21	66	26	229	90	67	21	22	19	26
16	16	16	21	56	28	214	103	125	18	19	25	87
17	31	18	21	45	26	190	327	141	16	15	32	690
18	27	21	18	40	23	172	870	133	38	12	1,280	270
19	22	21	21	46	24	158	600	117	99	10	465	158
20	21	19	88	45	28	176	455	99	72	9	229	103
21	18	17	98	41	27	176	348	87	56	9	133	77
22	18	16	78	45	24	185	286	80	42	8	90	59
23	18	16	62	45	13	184	239	348	34	8	69	49
24	16	18	54	40	16	180	199	199	29	8	51	42
25	16	18	46	38	22	180	176	185	25	8	45	36
26	16	18	43	38	15	301	145	167	19	9	49	32
27	18	18	40	34	16	455	129	149	16	12	42	31
28	18	18	34	34	10	2,590	113	133	16	54	34	26
29	17	18	26	34		1,150	99	121	14	29	38	29
30	16	18	31	20		750	93	121	13	42	24	137
31	16		31	25		570		109		61	21	
Month				Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October				31	15	17.9	0.094	0.11				
November				26	16	18.2	.096	.11				
December				88	18	31.8	.166	.19				
January				165	20	59.4	.313	.36				
February				31	10	23.2	.122	.13				
March				2,590	10	613	.323	3.72				
April				870	90	238	1.25	1.40				
May				348	40	107	.563	.65				
June				99	13	41.2	.217	.24				
July				61	8	18.9	.099	.11				
August				1,280	10	94.4	.497	.57				
September				690	13	70.3	.370	.41				
The year				2,590	8	112	.589	8.00				

## North River at Rockbridge Baths, Va.

Location.- Water-stage recorder 700 feet above highway bridge at Rockbridge Baths, Rockbridge County, and  $1\frac{1}{2}$  miles above Walker Creek. Zero of gage is 1,100.33 feet above mean sea level.

Drainage area.- 329 square miles.

Records available.- October 1928 to September 1934.

Extremes.- Maximum discharge during year, 4,480 second-feet Mar. 3 (gage height, 6.97 feet); minimum, 20 second-feet July 24, 25 (gage height, 1.03 feet).  
1928-34: Maximum discharge, 6,840 second-feet Oct. 17, 1932 (gage height, 9.00 feet); minimum, 11 second-feet Nov. 28, 1930 (gage height, 0.76 foot).

Remarks.- Records excellent except those estimated for Feb. 5-8, and for periods of ice effect, Jan. 30, 31, Feb. 9-11, Feb. 20 to Mar. 1, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	36	35	66	53	30	688	164	158	76	62	36
2	40	36	34	84	55	59	546	156	144	61	64	34
3	36	36	35	82	53	2,250	450	158	126	48	57	32
4	35	36	36	80	48	3,710	406	185	108	40	61	33
5	35	39	38	88	50	2,960	364	170	100	42	43	40
6	36	52	36	113	55	1,770	330	153	93	36	36	39
7	35	52	39	139	50	1,060	306	144	96	31	33	34
8	35	43	38	220	60	1,410	275	128	84	30	31	36
9	34	39	36	229	50	1,590	257	123	74	31	26	36
10	33	39	36	194	40	1,170	250	120	72	39	28	33
11	32	36	39	167	45	890	233	118	66	30	26	32
12	32	36	39	144	53	624	229	115	59	29	38	31
13	39	36	39	142	55	500	210	110	53	56	47	31
14	43	39	38	131	45	430	197	105	50	52	43	39
15	39	36	39	115	53	373	176	120	43	48	36	44
16	36	35	38	103	59	336	240	207	42	36	34	249
17	52	35	39	93	54	302	771	204	40	33	66	877
18	57	39	38	86	55	271	1,540	194	172	28	1,430	356
19	44	40	40	86	61	260	1,030	176	319	26	640	210
20	39	38	169	82	70	310	799	156	161	23	302	144
21	39	36	173	74	60	364	618	131	118	22	182	110
22	39	36	126	74	50	347	495	133	88	23	131	88
23	36	36	100	74	60	342	411	490	74	22	100	76
24	36	38	84	70	40	322	364	298	70	21	84	66
25	35	35	76	66	40	322	314	268	59	21	74	57
26	34	36	74	64	40	485	271	253	52	22	72	52
27	35	35	66	64	35	946	250	220	43	27	64	47
28	36	35	66	61	35	3,530	220	197	43	118	55	43
29	36	35	53	61		1,740	197	188	40	64	47	48
30	36	35	52	40		1,060	176	200	38	92	42	127
31	36		59	50		818		182		100	39	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					57	32	37.7	0.115		0.13		
November					52	35	37.9	.115		.13		
December					189	34	59.1	.180		.21		
January					229	40	101	.307		.35		
February					70	35	50.9	.155		.16		
March					3,710	30	987	3.00		3.48		
April					1,540	176	421	1.28		1.43		
May					490	105	180	.547		.63		
June					319	38	89.5	.272		.30		
July					118	21	42.9	.130		.15		
August					1,430	26	129	.392		.45		
September					877	31	103	.313		.35		
The year					3,710	21	188	.577		7.76		

## Kerrs Creek near Lexington, Va.

Location.- Chain gage at highway bridge  $3\frac{1}{2}$  miles northwest of Lexington, Rockbridge County, and a quarter of a mile above mouth. Zero of gage is 972.04 feet above mean sea level.

Drainage area.- 34 square miles.

Records available.- January 1927 to September 1934 (fragmentary prior to August 1930).

Extremes.- Maximum discharge recorded during year, 815 second-feet June 18 (gage height, 6.75 feet); minimum, 4 second-feet Sept. 12 (gage height, 3.40 feet).  
1927-34: Maximum discharge recorded, 1,700 second-feet Apr. 16, 1933 (gage height, 8.75 feet); minimum, 4 second-feet numerous days in August and September 1932 and Sept. 12, 1934.

Remarks.- Records fair. Discharge estimated for periods of ice effect, Dec. 27-30, Jan. 29-31, Feb. 9-11, 19, 20, Feb. 24 to Mar. 2.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	11	10	13	9	7	75	20	10	13	8	5
2	10	11	10	14	8	10	39	20	10	15	10	5
3	12	11	11	13	10	386	35	25	10	14	9	6
4	11	11	11	10	9	470	35	20	10	10	7	6
5	11	11	11	15	9	212	32	18	13	10	7	5
6	11	15	11	15	10	113	30	18	10	10	7	5
7	10	11	11	21	10	63	30	19	11	7	7	5
8	11	11	11	21	9	188	30	17	12	8	7	8
9	11	11	11	18	8	118	32	18	10	11	7	7
10	11	11	11	15	7	68	32	14	10	10	7	6
11	11	11	12	13	8	55	33	13	10	11	7	5
12	11	11	12	13	12	35	30	14	10	9	10	5
13	12	12	11	15	9	31	27	15	10	7	7	5
14	12	11	11	13	9	31	25	14	11	7	7	6
15	11	11	10	12	8	31	22	14	11	8	6	6
16	11	11	10	12	10	29	62	16	10	6	5	26
17	16	11	10	12	12	26	354	14	7	5	6	8
18	12	11	8	11	10	23	136	14	238	5	7	10
19	11	11	10	11	8	26	58	12	58	5	7	8
20	11	11	53	10	8	48	55	12	32	5	7	8
21	11	11	22	10	10	40	48	12	23	5	6	7
22	11	11	12	10	12	37	46	12	19	6	6	7
23	11	11	12	9	12	37	43	12	17	7	5	7
24	11	11	12	10	11	33	35	13	17	6	7	7
25	11	11	10	10	10	33	32	12	15	7	7	6
26	11	10	12	10	9	39	30	12	13	8	7	6
27	11	10	11	9	7	89	26	13	12	136	6	5
28	11	10	11	10	6	110	26	12	12	15	6	5
29	10	9	9	6		70	25	17	15	11	6	11
30	11	10	8	7		48	20	17	11	19	6	28
31	11		10	7		52		11		8	6	
Month				Maximum		Minimum		Mean		Per square mile		Run-off in inches
October				16		10		11.3		0.322		0.38
November				13		10		10.9		.331		.36
December				53		8		12.4		.365		.42
January				21		7		12.2		.369		.41
February				12		6		9.3		.274		.29
March				470		7		82.5		2.43		2.80
April				354		20		50.1		1.47		1.64
May				25		11		15.2		.447		.52
June				238		7		21.8		.641		.72
July				136		5		13.0		.382		.44
August				10		5		6.9		.203		.23
September				28		5		7.8		.229		.26
The year.				470		5		21.2		.624		8.47

## Tye River at Roseland, Va.

Location.- Chain gage at highway bridge three-quarters of a mile southwest of Roseland, Nelson County, and three-quarters of a mile above Hat Creek.- Zero of gage is 655.78 feet above mean sea level.

Drainage area.- 66 square miles.

Records available.- January 1927 to September 1934.

Extremes.- Maximum discharge recorded during year, 3,060 second-feet Sept. 16 (gage height, 10.10 feet); minimum, 11 second-feet Oct. 10, 11, Nov. 3, 4 (gage height, 3.04 feet).  
1927-34: Maximum discharge recorded, that of Sept. 16, 1934; minimum, 2 second-feet Sept. 30, Oct. 1, 1930.

Remarks.- Records good except those estimated for periods of ice effect, Feb. 18, 19, 21, Feb. 24 to Mar. 2, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	15	17	37	25	20	179	90	49	109	28	59
2	15	14	15	40	30	25	179	86	42	69	37	53
3	15	11	18	29	26	30	158	86	42	56	40	53
4	14	12	19	27	26	126	130	94	36	69	30	59
5	14	26	19	83	26	440	126	81	40	45	24	45
6	13	31	17	86	24	286	113	72	45	53	22	42
7	13	26	17	81	18	207	109	69	42	45	20	56
8	12	18	17	105	37	322	100	59	35	42	25	69
9	12	17	15	90	18	304	105	56	32	100	23	56
10	12	18	16	76	18	237	113	59	32	59	45	42
11	12	18	18	64	17	207	105	72	26	49	22	45
12	12	17	17	64	22	174	105	55	27	42	72	30
13	19	18	16	64	25	135	86	49	26	42	40	49
14	22	18	16	56	20	126	86	49	24	36	29	130
15	17	18	17	42	26	105	81	59	22	32	26	90
16	15	15	18	42	25	90	179	72	20	27	21	2,190
17	64	14	17	42	20	81	269	53	19	24	24	1,240
18	30	15	16	36	20	81	341	49	566	32	158	676
19	21	18	20	36	20	81	304	49	632	27	81	460
20	18	18	166	36	20	115	237	42	269	24	53	341
21	17	16	59	36	20	100	207	42	207	24	45	237
22	17	17	42	36	21	94	174	36	142	26	42	179
23	16	17	32	36	26	94	153	53	113	23	31	163
24	15	18	29	31	24	90	158	40	94	20	460	130
25	15	18	26	30	22	90	146	69	76	18	207	113
26	14	14	36	28	22	94	130	45	69	23	179	100
27	15	17	29	26	20	179	120	40	64	269	142	100
28	15	18	25	28	18	481	109	36	59	49	109	94
29	15	17	23	26		341	105	56	53	30	81	113
30	15	17	20	21		269	94	59	69	56	76	269
31	15		25	20		237		53		32	69	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	64	12	17.2	0.253	0.29
November	31	11	17.5	.257	.29
December	166	15	27.0	.297	.46
January	105	20	47.0	.691	.80
February	37	17	22.7	.334	.35
March	481	20	170	2.50	2.88
April	341	81	160	2.21	2.47
May	94	36	59.1	.869	1.00
June	632	19	99.1	1.46	1.63
July	269	18	50.1	.737	.95
August	460	20	72.9	1.07	1.23
September	2,190	30	243	3.57	3.98
The year	2,190	11	81.3	1.20	16.23

## North River near Lexington, Va.

Location.— Water-stage recorder 300 yards above Lime Kiln highway bridge and 2½ miles above Lexington, Rockbridge County. Zero of gage is 906.56 feet above mean sea level.

Drainage area.— 487 square miles.

Records available.— August 1925 to September 1934.

Extremes.— Maximum discharge during year, 6,360 second-feet Mar. 3 (gage height, 9.42 feet); maximum gage height, about 11.4 feet Mar. 3 (ice jam); minimum discharge, 45 second-feet Jan. 31 (gage height, 1.96 feet).  
1925-34: Maximum discharge, 11,100 second-feet Oct. 18, 1932 (gage height, 12.63 feet); minimum, 34 second-feet Sept. 6, 1930, and Sept. 18, 1932.

Remarks.— Records good except those estimated for Nov. 21-24, Nov. 26 to Dec. 5, Jan. 5-14, Apr. 20, and for periods of ice effect, Feb. 9-11, Feb. 27 to Mar. 1, Mar. 3, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	79	75	98	80	60	882	239	204	167	113	73
2	100	80	75	117	88	82	725	235	187	115	145	66
3	94	82	80	122	88	2,680	593	220	163	100	131	66
4	90	84	80	117	84	5,160	519	214	148	88	122	77
5	86	84	80	140	88	4,250	475	210	143	82	96	68
6	84	106	79	170	90	2,730	424	207	140	80	86	73
7	84	106	80	200	77	1,550	396	210	138	71	73	71
8	82	98	80	330	86	1,930	368	204	136	68	70	73
9	82	92	79	350	70	2,260	348	187	131	70	68	70
10	80	84	77	290	60	1,550	348	182	128	73	63	66
11	79	82	80	250	70	1,120	314	179	122	70	63	66
12	80	80	84	220	88	828	306	173	122	61	133	63
13	86	82	80	220	96	675	277	171	119	64	94	61
14	94	82	77	190	77	579	256	163	119	88	102	66
15	90	82	75	160	88	497	239	182	111	77	79	80
16	88	77	77	148	94	453	333	256	92	70	73	272
17	100	73	75	140	88	408	1,050	246	84	63	75	1,000
18	115	79	79	131	75	364	2,360	239	338	58	1,260	501
19	94	82	82	128	102	344	1,630	220	563	52	852	288
20	84	82	295	122	100	412	1,230	198	256	50	408	204
21	82	80	256	115	82	484	828	182	182	50	243	160
22	84	80	182	115	94	462	675	219	143	64	182	138
23	84	80	145	111	108	449	547	650	122	52	153	122
24	82	80	128	104	68	424	484	392	113	50	145	111
25	77	79	115	98	79	416	441	329	104	49	122	102
26	77	75	113	96	68	565	380	317	96	190	124	94
27	77	75	104	96	60	1,020	348	277	86	107	117	88
28	79	75	98	94	60	4,380	310	253	80	171	104	86
29	79	75	90	90		2,460	292	239	82	122	92	113
30	82	75	75	61		1,510	246		82	131	82	263
31	80		92	71		1,060		230		166	77	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	115	77	86.4	0.177	0.20
November	106	73	82.3	.169	.19
December	295	75	103	.211	.24
January	360	61	151	.310	.36
February	108	60	82.4	.169	.18
March	5,160	60	1,328	2.73	3.15
April	2,360	239	588	1.21	1.35
May	650	163	241	.496	.57
June	563	80	151	.310	.35
July	190	49	87.7	.180	.21
August	1,260	63	179	.368	.42
September	1,000	61	153	.314	.35
The year.	5,160	49	271	.556	7.57

## Hardware River near Scottsville, Va.

Location.- Chain gage at bridge on Woodridge-Scottsville highway 3 miles north of Scottsville, Albemarle County, and 9 miles above mouth. Zero of gage is 308.50 feet above mean sea level.

Drainage area.- 104 square miles.

Records available.- May 1925 to September 1934.

Extremes.- Maximum discharge recorded during year, 1,150 second-feet June 19 (gage height, 8.90 feet); minimum, 13 second-feet Feb. 10 (gage height, 1.40 feet).  
1925-34: Maximum discharge recorded, 4,690 second-feet Aug. 28, 1928 (gage height, 16.62 feet); minimum, 1.5 second-feet Sept. 2, 22, 1932 (gage height, 1.20 feet).

Remarks.- Records fair. Discharge estimated Feb. 25 to Mar. 2 because of ice effect. Low-water flow regulated by dam and gristmill above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	37	31	63	55	40	155	76	59	50	32	31
2	48	40	27	63	71	50	137	80	51	42	25	31
3	39	37	31	63	59	231	114	84	49	40	31	32
4	42	39	33	63	63	674	109	104	48	38	29	30
5	37	45	34	155	59	506	99	89	46	33	27	24
6	41	60	27	149	49	244	94	80	49	31	29	22
7	39	48	27	131	42	149	89	71	48	33	25	33
8	37	41	27	114	36	143	84	67	44	35	26	54
9	36	39	37	94	20	270	80	67	44	285	29	33
10	37	43	34	80	15	167	84	63	44	106	27	32
11	34	39	33	67	41	137	80	63	45	60	30	27
12	39	39	33	67	53	104	76	59	46	53	33	29
13	60	38	33	63	48	94	71	59	47	42	28	38
14	52	39	33	63	46	89	63	59	44	36	29	36
15	43	34	31	59	48	80	63	59	38	31	29	43
16	34	33	33	59	45	76	167	89	35	35	29	205
17	98	31	34	55	44	71	312	67	34	35	27	257
18	60	41	37	59	46	76	354	59	167	32	38	106
19	44	42	45	63	52	76	205	55	1,120	29	31	68
20	40	42	312	55	49	114	143	54	1,138	29	30	60
21	39	37	109	53	46	126	131	49	82	26	29	60
22	36	39	76	59	49	114	114	49	73	27	32	54
23	37	40	59	55	53	94	104	49	64	44	27	52
24	39	39	59	59	54	89	99	55	55	30	26	49
25	42	37	59	55	50	104	99	63	49	29	31	40
26	37	33	59	54	45	120	94	59	47	25	29	38
27	39	36	63	53	35	396	89	59	40	26	24	36
28	38	35	67	53	30	410	84	55	38	35	23	36
29	39	37	59	52		257	84	67	35	37	25	51
30	38	37	63	51		205	80	71	55	111	29	91
31	39		63	49		149		71		82	29	
Month	Maximum		Minimum		Mean		Per square mile		Run-off in inches			
October	98	34	42.6	0.410	0.47							
November	60	31	39.2	.377	.42							
December	312	27	53.8	.517	.60							
January	155	49	70.3	.676	.78							
February	71	15	46.5	.447	.47							
March	674	40	176	1.69	1.95							
April	354	63	119	1.14	1.27							
May	104	49	66.2	.637	.73							
June	1,120	34	91.1	.876	.98							
July	285	25	49.9	.480	.55							
August	38	23	28.6	.275	.32							
September	257	22	56.6	.544	.61							
The year.	1,120	15	70.1	.674	9.15							

## Slate River near Arvonion, Va.

Location.- Chain gage at Bumpers highway bridge 2 miles from Arvonion, Buckingham County, and 2 miles above mouth. Zero of gage is 238.78 feet above mean sea level.

Drainage area.- 235 square miles.

Records available.- April 1926 to September 1934.

Extremes.- Maximum discharge recorded during year, 3,320 second-feet Mar. 5 (gage height, 10.70 feet); minimum, 22 second-feet July 27, 28 (gage height, 1.98 feet).  
1928-34: Maximum discharge recorded, 5,300 second-feet Aug. 12, 1928 (gage height, 14.12 feet); minimum, 2 second-feet Sept. 28 to Oct. 2, 1930.

Remarks.- Records good except those estimated for periods of ice effect, Jan. 30 to Feb. 2, Feb. 8-15, 20, 21, Feb. 25 to Mar. 2, which are fair. Operation of grist-mill  $7\frac{1}{2}$  miles upstream affects low-water flow.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	53	49	85	50	40	372	97	245	170	45	39
2	40	55	43	125	70	50	269	97	125	80	34	23
3	32	51	55	97	110	610	211	110	97	63	40	28
4	31	49	58	80	85	2,510	190	372	85	61	40	46
5	46	49	56	134	85	2,110	160	179	80	40	29	36
6	37	69	53	372	74	456	151	151	80	43	27	40
7	32	80	60	211	69	269	134	125	85	36	34	759
8	31	58	63	211	60	610	118	110	85	55	428	1,070
9	29	56	62	142	40	428	125	91	80	85	80	170
10	37	50	60	104	30	320	142	91	74	64	53	91
11	31	53	61	91	30	269	134	134	74	54	63	69
12	37	57	54	91	50	179	118	134	69	45	282	59
13	38	60	53	104	60	170	110	104	74	47	118	85
14	34	60	53	118	60	142	104	85	80	44	69	1,670
15	30	56	54	97	70	125	97	85	64	40	62	516
16	33	47	56	36	74	110	486	190	53	39	56	678
17	64	43	53	80	80	104	1,030	125	170	34	69	1,200
18	104	49	53	74	74	110	1,070	104	294	31	49	289
19	53	52	54	74	85	104	400	91	1,110	33	47	161
20	47	53	486	74	100	104	282	80	222	29	43	110
21	46	51	320	69	80	125	211	69	118	26	48	97
22	43	52	245	69	91	245	179	64	35	28	40	104
23	49	56	80	80	200	1,070	161	69	69	33	37	85
24	46	49	69	74	118	1,030	142	69	125	32	39	74
25	49	48	69	69	100	714	151	80	91	35	35	74
26	49	57	179	69	80	546	134	91	74	26	33	64
27	43	55	400	69	60	516	134	80	61	25	69	60
28	42	51	134	69	50	1,070	110	74	64	22	52	60
29	46	51	97	63		428	104	160	64	27	49	62
30	49	50	80	40		372	104	294	53	110	38	104
31	46		91	30		516		456		52	30	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	104	29	42.7	0.182	0.21
November	80	45	54.1	.230	.26
December	486	49	107	.455	.52
January	372	30	102	.434	.50
February	200	30	76.2	.324	.34
March	2,510	40	499	2.12	2.44
April	1,070	97	237	1.01	1.13
May	456	64	131	.557	.64
June	1,110	53	135	.574	.64
July	170	22	48.4	.206	.24
August	428	27	69.0	.294	.34
September	1,670	28	263	1.12	1.25
The year.	2,510	22	147	.626	8.51





## Rivanna River at Palmyra, Va.

Location.- Water-stage recorder 200 feet below highway bridge at Palmyra, Fluvanna County.

Drainage area.- 675 square miles.

Records available.- May to September 1934.

Extremes.- Maximum discharge during period, 18,400 second-feet Sept. 17 (gage height, 24.75 feet); minimum, 120 second-feet July 28 (gage height, 2.10 feet).  
Flood of May 1924 reached a stage of about 27 feet (discharge, about 21,000 second-feet).

Remarks.- Records good. Discharge estimated May 1-10, July 30 to Aug. 2.

Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									520	316	500	196
2									366	380	300	180
3									319	271	177	167
4									281	228	188	174
5								400	258	218	168	190
6									247	206	144	171
7									288	180	135	212
8									244	179	129	472
9									222	140	129	344
10									218	140	162	247
11								305	363	192	244	212
12								288	792	181	1,080	193
13								264	436	212	720	1,040
14								258	258	179	362	3,910
15								278	215	166	254	3,060
16								359	206	168	212	3,720
17								298	186	141	225	15,400
18								268	582	162	254	5,320
19								254	7,150	153	334	1,700
20								238	2,250	141	348	1,190
21								222	1,190	138	264	960
22								218	692	153	215	780
23								337	700	281	190	680
24								292	600	271	716	580
25								278	484	168	1,140	520
26								355	403	141	700	480
27								285	337	141	488	437
28								268	298	132	388	403
29								312	275	132	302	380
30								414	251	1,370	251	1,400
31								600		670	218	
Month								Maximum	Minimum	Mean	Per square mile	Run-off in inches
October												
November												
December												
January												
February												
March												
April												
May								600		335	0.496	0.57
June								7,180	186	694	1.03	1.15
July								1,300	132	281	.416	.48
August								1,140	129	353	.523	.60
September								15,400	168	1,490	2.21	2.47
The year												

## Willis River at Flanagan Mills, Va.

Location.- Chain gage at highway bridge at Flanagan Mills, Cumberland County, 3 miles below Reynolds Creek. Zero of gage is 178.98 feet above mean sea level.

Drainage area.- 247 square miles.

Records available.- April 1926 to September 1934.

Extremes.- Maximum discharge recorded during year, 1,880 second-feet Mar. 6. (gage height, 14.25 feet); minimum, 22 second-feet July 28 (gage height, 2.88 feet).

1926-34: Maximum discharge recorded, 3,330 second-feet Mar. 7, 1929 (gage height, 19.95 feet); minimum, 2 second-feet Sept. 30, Oct. 1, 4, 12, 1930.

Remarks.- Records good except those estimated for Apr. 11 and for periods of ice effect, Jan. 30 to Feb. 2, Feb. 9-15, 20, 21, Feb. 24 to Mar. 2, which are fair. The flow from Trice Lake, which forms only a small part of total flow at station, is completely regulated during low stages and slightly affects natural flow at gage.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	49	61	89	50	50	1,110	120	240	58	227	30
2	39	61	61	132	70	80	806	120	177	52	75	26
3	52	49	58	132	127	264	443	126	142	55	64	31
4	42	55	61	107	117	1,210	336	214	87	52	55	46
5	44	49	61	107	98	1,570	322	253	115	72	142	35
6	37	64	68	173	98	1,880	280	201	110	39	83	35
7	37	83	75	161	85	1,520	240	142	100	35	42	491
8	35	72	75	149	73	621	201	131	79	35	153	1,590
9	39	68	79	144	60	657	201	105	68	105	443	1,350
10	42	49	83	117	50	531	189	100	61	55	294	1,520
11	35	52	75	94	40	411	189	115	58	44	91	201
12	42	52	75	85	40	212	165	131	58	39	142	120
13	35	61	68	98	60	161	165	110	61	42	100	120
14	37	75	72	136	70	144	142	96	55	59	110	443
15	35	75	75	127	80	117	131	91	49	37	61	575
16	39	68	75	117	81	102	366	115	42	30	72	1,190
17	44	61	68	85	81	89	788	115	42	25	177	734
18	52	58	64	77	59	85	825	105	366	33	79	491
19	55	58	61	73	73	77	644	91	844	26	46	322
20	49	61	189	73	90	479	459	79	592	33	39	177
21	49	64	366	66	80	749	322	72	280	44	42	131
22	39	61	346	70	98	667	240	68	105	31	37	115
23	49	68	144	81	138	428	214	68	79	31	35	105
24	49	68	98	85	110	240	189	64	68	30	33	91
25	44	61	81	81	100	199	189	68	75	28	35	79
26	44	61	107	81	90	226	153	100	51	31	39	75
27	44	61	240	73	70	240	142	87	52	24	42	72
28	44	61	199	66	60	953	135	79	68	24	49	72
29	44	58	127	62		977	131	142	61	253	46	75
30	44	55	85	40		1,050	120	280	55	280	39	83
31	55		66	40		825		366		366	33	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					55	35	42.9	0.174		0.20		
November					83	49	61.3	.248		.28		
December					366	58	108	.437		.50		
January					173	40	97.5	.395		.46		
February					138	40	80.3	.325		.34		
March					1,880	50	540	2.19		2.52		
April					1,110	120	328	1.33		1.48		
May					366	64	128	.518		.60		
June					844	42	142	.575		.64		
July					366	24	66.1	.268		.31		
August					443	33	94.4	.382		.44		
September					1,590	26	348	1.41		1.57		
The year					1,880	24	170	.688		9.34		

## Appomattox River at Farmville, Va.

Location.- Water-stage recorder at highway bridge 1,000 feet north of Farmville, Prince Edward County, and 1½ miles below Buffalo Creek.

Drainage area.- 306 square miles.

Records available.- March 1926 to September 1934.

Extremes.- Maximum discharge during year, 3,670 second-feet Mar. 5 (gage height, 15.73 feet); minimum, 5 second-feet Oct. 4 (gage height, 3.05 feet); minimum daily discharge, 31 second-feet July 27.

1926-34: Maximum discharge recorded, 6,960 second-feet Aug. 12, 1928 (gage height, 21.10 feet); minimum, that of Oct. 4, 1933; minimum daily discharge, 9 second-feet Sept. 20, 1932.

Remarks.- Records good. Low-water flow regulated by dam above station.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	53	64	76	134	95	126	582	121	306	80	69	43		
2	49	56	74	189	142	123	388	120	180	214	166	41		
3	52	66	74	162	160	321	284	146	155	129	110	46		
4	50	76	82	130	120	2,360	238	346	130	78	67	69		
5	48	96	83	130	129	3,140	216	266	132	88	56	54		
6	48	89	80	172	124	1,340	199	189	144	97	51	62		
7	45	94	98	180	104	542	195	158	141	58	266	702		
8	45	77	104	199	110	468	195	132	172	51	623	2,910		
9	44	70	98	176	94	562	206	122	118	58	139	1,410		
10	41	68	102	139	70	354	174	114	106	60	95	351		
11	40	65	98	123	90	274	194	150	96	56	75	162		
12	42	66	87	116	114	223	176	154	134	51	108	128		
13	44	68	82	148	126	191	148	113	168	51	84	597		
14	45	85	82	167	103	172	139	102	110	53	69	444		
15	46	81	82	140	118	154	133	110	82	85	175	389		
16	48	69	82	124	127	138	365	152	75	72	32	336		
17	53	60	83	118	92	133	661	125	71	44	83	922		
18	86	76	94	112	80	126	612	107	248	40	65	444		
19	66	76	90	110	124	126	382	98	1,140	40	60	236		
20	55	76	357	110	124	625	284	91	472	38	60	189		
21	52	74	453	105	104	971	231	83	183	37	51	156		
22	55	76	208	107	126	522	215	83	126	44	49	139		
23	60	76	144	127	152	358	189	145	106	46	49	122		
24	56	76	128	116	126	278	174	103	99	37	58	109		
25	60	74	116	108	92	258	160	185	94	41	53	101		
26	56	74	132	110	54	324	142	197	82	32	56	97		
27	54	75	198	109	116	395	136	122	76	31	74	93		
28	56	75	163	109	165	1,570	132	112	81	42	77	93		
29	58	75	124	102		1,340	130	317	68	261	76	97		
30	61	75	80	62		504	118	546	72	482	52	120		
31	70		117	60		512		534		104	46			
Month					Maximum		Minimum		Mean		Per square rile		Run-off in inches	
October					86		40		52.8		0.173		0.20	
November					96		56		74.3		.243		.27	
December					453		74		125		.408		.47	
January					199		60		129		.422		.49	
February					165		54		114		.373		.39	
March					3,140		123		598		1.95		2.25	
April					661		118		247		.807		.90	
May					546		83		172		.562		.65	
June					1,140		68		172		.562		.63	
July					482		31		83.9		.274		.32	
August					623		46		101		.330		.38	
September					2,910		41		355		1.16		1.29	
The year.					3,140		31		186		.608		8.24	

## Appomattox River at Mattoax, Va.

Location.- Chain gage at Southern Railway bridge at Mattoax, Amelia County, a quarter of a mile above Skinquarter Creek.

Drainage area.- 745 square miles.

Records available.- August 1900 to December 1905, March 1926 to September 1934.

Extremes.- Maximum discharge recorded during year, 6,210 second-feet Mar. 8 (gage height, 23.40 feet); minimum, 54 second-feet Oct. 12 (gage height, 4.37 feet).  
1900-1905, 1926-34: Maximum discharge recorded, 12,200 second-feet May 25, 1901 (gage height, old datum, 24.6 feet); minimum, 11 second-feet Oct. 2, 1930 (gage height, 3.52 feet).

Remarks.- Records good. Discharge estimated Feb. 17, 18.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	116	140	291	111	660	2,080	291	1,010	152	291	72
2	134	128	140	324	291	460	1,680	291	706	214	341	72
3	106	122	140	394	341	412	984	307	412	706	307	111
4	72	116	146	324	341	1,070	754	376	324	594	275	122
5	100	122	152	275	291	3,310	660	616	307	291	873	116
6	86	166	159	275	291	4,170	594	550	341	166	376	122
7	106	186	172	324	259	5,090	530	394	394	146	146	128
8	86	172	186	341	244	5,940	490	324	275	152	90	3,380
9	81	159	200	341	244	3,540	490	291	275	136	1,010	2,860
10	95	140	200	324	259	1,010	470	259	244	140	341	2,030
11	90	140	200	275	275	873	450	291	229	116	200	1,040
12	76	128	200	244	275	754	470	307	324	116	376	307
13	81	140	172	275	275	660	412	307	376	134	244	291
14	96	152	159	324	291	572	376	244	324	128	200	1,710
15	86	159	159	324	259	470	358	229	259	122	152	956
16	90	166	159	291	291	470	572	275	244	214	140	1,450
17	95	152	159	244	275	430	1,680	324	166	244	291	3,040
18	100	134	159	229	214	412	1,740	291	275	122	166	1,770
19	106	134	152	214	186	376	1,270	244	802	90	146	904
20	146	152	275	214	259	956	852	229	1,180	68	116	490
21	116	152	660	200	291	2,320	660	200	616	134	106	376
22	86	152	778	200	275	2,280	550	136	341	95	106	358
23	100	146	376	229	324	1,360	470	186	259	116	100	324
24	106	152	307	259	358	873	450	275	200	81	106	259
25	111	152	229	259	275	706	430	341	136	106	146	244
26	111	146	275	229	140	802	394	450	172	81	140	214
27	116	140	412	214	172	956	358	470	530	72	116	200
28	116	152	412	214	430	1,070	341	307	244	64	134	200
29	111	146	291	200		2,420	324	572	324	111	122	179
30	116	140	186	152		2,210	307	956	136	1,010	122	179
31	116		179	100		1,300		1,420		633	111	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					146	72	101	0.136		0.16		
November					136	116	145	.195		.22		
December					773	140	243	.326		.38		
January					394	100	261	.350		.40		
February					430	111	269	.361		.38		
March					5,940	376	1,562	2.10		2.42		
April					2,080	307	707	.949		1.06		
May					1,420	186	381	.511		.59		
June					1,130	166	384	.515		.57		
July					1,010	64	213	.286		.33		
August					1,010	90	239	.321		.37		
September					3,380	72	785	1.05		1.17		
The year					5,940	64	442	.593		8.05		

## Appomattox River near Petersburg, Va.

Location.- Water-stage recorder  $1\frac{1}{2}$  miles above Wallace Creek,  $2\frac{1}{2}$  miles above dam of Virginia Electric & Power Co., and 7 miles west of Petersburg, Dinwiddie County.

Drainage area.- 1,335 square miles.

Records available.- September 1931 to September 1934. May 1927 to September 1931 at site 1 mile downstream.

Extremes.- Maximum discharge during year ending Sept. 30, 1934, 8,010 second-feet Mar. 6 (gauge height, 10.39 feet); minimum, 96 second-feet Oct. 12 (gauge height, 2.19 feet). 1927-34: Maximum discharge, 8,710 second-feet Apr. 30, 1928 (gauge height, 9.53 feet, old site and datum); minimum, 19 second-feet Sept. 21-27, 1932.

Remarks.- Records good except those estimated for Dec. 6-8, 1931, Oct. 18-22, Nov. 3-5, 8, 9, 1932, Apr. 28-30, June 28-30, 1933, Jan. 31 to Feb. 15, Mar. 9 to May 11, May 13, 14, July 7-12, 1934, which are fair. Records for the years ending Sept. 30, 1932 and 1933, supersede those published in Water-Supply Papers 727 and 742.

Discharge, in second-feet, 1931-32

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	155	210	486	1,550	675	5,250	520	349	349	76	20
2	152	144	217	1,180	1,180	597	5,130	646	305	279	79	20
3	138	149	213	1,500	1,100	533	3,590	666	282	200	67	20
4	136	158	217	996	1,360	768	2,100	622	264	158	58	21
5	117	149	217	642	1,900	1,550	1,260	542	250	153	48	24
6	108	152	220	509	2,050	3,870	1,020	917	237	174	46	33
7	105	155	220	474	1,650	7,410	920	3,540	224	191	46	101
8	105	158	250	962	1,180	7,890	826	2,260	227	209	120	86
9	103	164	274	4,310	988	7,770	819	981	212	194	96	70
10	98	158	352	6,220	868	6,810	1,150	622	215	191	79	52
11	100	173	497	6,690	799	6,330	2,000	558	212	168	55	40
12	112	173	527	6,220	745	4,420	1,790	1,060	200	143	49	32
13	103	179	441	5,120	760	1,140	1,490	2,440	271	109	43	27
14	110	179	357	2,930	805	960	1,170	2,440	345	88	36	25
15	110	193	330	1,180	782	840	936	1,630	392	79	32	27
16	174	186	312	980	682	738	805	912	345	69	32	24
17	179	182	286	844	649	692	731	705	316	89	31	21
18	176	186	266	745	656	672	679	2,030	312	64	30	20
19	149	186	266	632	642	653	640	2,270	309	58	31	20
20	133	189	254	623	610	610	610	1,530	289	56	30	20
21	125	199	239	578	558	569	586	960	275	65	26	19
22	127	210	286	539	610	622	564	705	254	53	26	19
23	122	203	720	521	805	968	547	604	240	52	25	19
24	120	199	1,280	515	828	1,400	530	536	209	56	24	19
25	125	203	900	503	731	1,090	514	470	188	70	26	19
26	122	196	590	497	636	805	580	420	169	51	33	19
27	120	193	420	491	604	753	724	383	156	75	31	19
28	122	196	348	578	584	3,660	705	366	168	92	26	48
29	125	199	321	703	649	5,730	616	357	264	75	24	48
30	136	203	330	1,040	5,730	5,730	520	388	316	70	23	36
31	138		330	1,360		5,130		411		52	21	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	179	98	129	0.096	0.11
November	203	144	179	.134	.15
December	1,280	210	377	.282	.33
January	6,690	474	1,633	1.22	1.41
February	2,050	558	930	.697	.75
March	7,890	533	2,625	1.97	2.27
April	5,250	514	1,293	.969	1.08
May	3,340	367	1,046	.784	.90
June	392	156	260	.195	.22
July	349	51	120	.090	.10
August	120	21	44.2	.033	.04
September	101	19	32.3	.024	.03
The year	7,890	19	724	.542	7.39

## Appomattox River near Petersburg, Va.

(Continued)

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.			
1	32	352	717	6,330	1,590	798	705	1,030	6,690	584	623	782			
2	29	1,680	675	6,090	1,400	770	731	884	5,870	385	380	509			
3	27	4,800	623	5,060	1,440	738	718	916	3,580	438	330	415			
4	31	5,200	584	1,540	1,300	718	698	1,000	1,500	566	250	366			
5	36	3,300	545	1,220	1,220	686	692	956	798	325	235	362			
6	877	969	521	1,050	1,120	666	679	1,180	649	282	235	366			
7	1,680	1,300	503	928	1,030	679	826	1,460	584	254	210	410			
8	842	3,000	474	833	2,320	960	952	1,410	558	228	196	352			
9	443	2,800	458	1,460	3,580	976	1,020	1,100	578	206	176	290			
10	237	3,360	441	3,920	3,700	864	872	940	623	176	161	246			
11	164	3,910	497	4,250	3,150	718	731	924	552	232	831	220			
12	112	3,690	675	3,590	2,380	640	805	1,000	446	495	1,180	210			
13	92	2,630	828	1,940	2,270	622	2,600	916	425	1,360	900	186			
14	81	1,060	1,140	1,300	2,220	640	3,590	790	366	790	545	186			
15	75	782	1,750	1,170	2,320	826	3,370	710	330	430	436	196			
16	75	662	1,950	1,100	2,820	1,000	1,840	649	303	299	375	213			
17	226	604	1,460	1,020	2,490	872	2,820	703	299	246	343	325			
18	6,600	578	892	928	1,840	764	5,130	649	290	224	299	441			
19	6,100	707	636	864	1,440	718	5,370	610	278	217	308	303			
20	6,400	1,800	900	826	1,490	896	6,210	568	262	220	436	232			
21	7,500	2,810	1,100	798	2,490	1,300	6,690	521	243	710	420	189			
22	6,400	2,650	1,060	896	2,600	2,000	7,170	503	232	1,050	366	161			
23	2,000	1,360	1,180	960	2,000	2,100	6,930	587	217	1,250	686	144			
24	539	884	1,600	888	1,400	1,440	4,680	836	217	485	1,550	136			
25	415	724	3,470	872	1,170	1,040	1,900	630	217	308	1,360	120			
26	362	696	5,230	3,590	1,060	968	1,600	515	235	288	996	117			
27	352	1,030	5,560	5,020	968	1,050	1,360	578	458	670	597	117			
28	415	1,460	5,780	5,850	872	1,020	1,200	642	1,600	768	410	110			
29	468	1,180	6,220	5,730		880	1,100	682	1,500	1,650	763	112			
30	441	844	6,570	5,250		777	1,000	2,170	900	1,100	2,810	115			
31	352		6,570	3,810		724		6,570		932	1,750				
Month						Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October						7,500		27		1,400		1.05		1.21	
November						5,200		352		1,691		1.42		1.58	
December						6,570		441		1,962		1.47		1.70	
January						6,330		798		2,551		1.91		2.20	
February						3,700		872		1,918		1.44		1.50	
March						2,100		622		931		.697		.80	
April						7,170		679		2,466		1.85		2.06	
May						6,570		503		1,053		.789		.91	
June						6,690		217		1,020		.764		.86	
July						1,650		176		554		.415		.48	
August						2,810		161		650		.487		.56	
September						782		110		264		.198		.22	
The year						7,600		27		1,384		1.04		14.07	

## Appomattox River near Petersburg, Va.

(Continued)

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	133	176	239	348	300	790	3,800	520	2,050	474	805	173
2	189	182	232	497	400	868	3,000	520	1,460	837	656	141
3	206	199	235	590	550	1,050	1,800	540	980	836	1,230	127
4	158	193	243	616	600	4,340	1,500	680	724	1,140	798	141
5	133	193	239	539	500	7,290	1,250	1,050	630	610	828	158
6	130	199	254	468	500	7,890	1,100	960	590	316	1,010	206
7	130	262	270	474	470	7,770	950	700	578	276	420	321
8	136	308	299	491	430	6,830	890	600	717	230	250	3,470
9	120	290	343	521	410	6,000	890	520	668	230	663	4,790
10	112	270	350	521	410	4,460	840	460	610	210	860	3,590
11	117	250	380	474	450	2,920	800	560	515	225	452	2,650
12	112	228	362	420	480	1,700	740	584	597	220	380	948
13	110	220	343	420	480	1,250	680	620	852	232	682	1,300
14	108	213	312	509	480	1,000	640	560	731	220	623	1,750
15	110	232	282	571	520	880	580	571	584	193	376	2,400
16	115	250	282	545	491	840	950	900	446	182	278	2,300
17	122	262	278	468	515	760	2,800	900	362	217	303	4,790
18	127	266	274	415	430	680	2,900	760	430	373	463	4,470
19	144	250	274	390	366	600	2,100	636	1,600	217	354	2,820
20	149	235	308	371	623	1,400	1,500	546	1,800	187	254	1,080
21	173	228	521	362	775	4,200	1,200	480	1,600	189	199	784
22	176	239	964	357	696	4,100	1,000	441	876	352	167	744
23	149	268	1,010	390	675	2,500	890	420	539	246	164	574
24	152	270	630	456	731	1,890	790	436	396	376	152	470
25	155	250	452	474	703	1,300	720	662	380	274	161	415
26	155	243	400	430	463	1,440	660	932	452	182	206	374
27	155	239	485	395	584	1,600	620	1,100	380	161	220	349
28	155	232	656	380	731	1,600	600	884	636	136	210	320
29	164	235	675	366		4,600	560	1,360	515	635	250	301
30	170	239	627	330		4,000	540	2,300	590	1,630	224	293
31	170		366	240		2,500		2,500		1,140	183	
Month	Maximum					Minimum			Mean		Per square mile	Run-off in inches
October	206					108			143		0.107	0.12
November	308					176			237		.178	.20
December	1,010					232			404		.303	.35
January	616					240			446		.334	.39
February	775					300			527		.395	.41
March	7,890					600			2,863		2.14	2.47
April	3,800					540			1,242		.930	1.04
May	2,500					420			797		.597	.69
June	2,050					362			776		.581	.65
July	1,650					136			411		.308	.36
August	1,230					152			446		.333	.38
September	4,790					127			1,408		1.05	1.17
The year.	7,890					108			809		.606	8.23

## Lake Drummond in Dismal Swamp, Va.

Location.- Staff gage near lake outlet on county line between Nansemond and Norfolk Counties, 25 miles from Norfolk and 4 miles from North Carolina State line.

Records available.- May 1926 to September 1934.

Extremes.- Maximum gage height during year, 5.33 feet Mar. 19; minimum, 4.33 feet Apr. 12. 1926-34: Maximum gage height, 6.09 feet Oct. 7, 1929; minimum, 0.10 foot Dec. 9, 1926.

Remarks.- Records good.

Gage height, in feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.16	5.02	4.92	4.99	5.17	5.18	4.63	5.10	5.10	4.99	5.14	5.19
2	5.14	5.02	4.87	5.05	5.22	5.20	4.68	4.93	5.16	4.94	5.14	5.19
3	5.08	5.02	4.89	5.02	5.22	5.20	4.66	4.73	5.16	4.94	5.14	5.09
4	5.11	5.02	4.99	5.02	5.17	5.23	4.63	4.66	5.18	4.91	5.14	5.14
5	5.11	5.02	4.97	5.02	5.19	5.23	4.58	5.00	5.23	4.91	5.14	5.19
6	5.11	5.07	4.97	4.97	5.17	5.23	4.53	5.08	5.06	4.86	5.09	5.19
7	5.11	5.07	4.99	5.05	5.17	5.18	4.48	5.13	5.08	4.89	5.04	5.11
8	5.11	5.12	4.97	5.07	5.19	5.18	4.63	5.18	5.13	4.81	5.07	4.91
9	5.11	5.09	4.99	5.07	5.17	5.18	4.48	5.18	5.18	4.97	5.04	5.19
10	5.11	5.07	5.05	5.07	5.12	4.98	4.50	5.20	5.16	5.06	5.04	5.14
11	5.14	5.07	5.09	5.05	5.12	4.93	4.38	5.26	5.20	5.07	5.04	5.01
12	5.11	5.02	5.02	5.09	5.17	5.03	4.36	5.23	5.20	5.07	5.07	5.04
13	5.14	4.97	5.02	5.12	5.19	5.08	4.80	5.20	5.18	5.07	5.01	4.91
14	5.16	5.02	4.95	5.12	5.17	5.18	4.85	5.23	5.20	5.14	4.99	4.94
15	5.11	5.02	4.96	5.12	5.19	5.08	4.80	5.20	5.16	5.11	5.01	4.79
16	5.12	4.99	4.97	5.15	5.17	5.13	4.76	4.63	5.13	5.06	5.07	4.87
17	5.12	4.97	4.95	5.12	5.17	5.13	4.70	4.60	5.13	5.06	5.07	4.89
18	5.15	5.02	4.97	5.12	5.18	5.20	4.78	4.83	5.13	5.06	5.01	4.81
19	5.12	5.02	4.99	5.17	5.20	5.30	5.03	5.13	5.10	5.04	5.01	4.77
20	5.12	5.02	4.97	5.12	5.16	4.88	4.68	5.20	5.13	5.07	4.99	4.67
21	5.12	5.02	5.02	5.07	5.16	4.68	4.98	5.26	5.13	5.06	5.01	4.59
22	5.12	5.02	4.97	5.09	5.18	4.60	4.98	5.25	5.08	5.07	5.09	4.54
23	5.12	4.99	5.02	5.15	5.20	4.56	4.98	5.20	5.09	5.04	5.14	4.59
24	5.12	4.97	4.99	5.15	5.18	4.53	5.00	5.13	5.09	5.04	5.19	4.67
25	5.12	4.97	5.02	5.17	5.23	4.50	5.08	4.73	5.04	4.96	5.14	5.14
26	5.12	4.97	4.99	5.17	5.06	4.56	5.10	4.73	5.04	5.06	5.19	5.29
27	5.09	4.99	5.02	5.15	4.96	4.50	5.06	4.98	5.04	5.11	5.19	5.27
28	5.07	4.97	4.99	5.22	5.18	4.50	5.03	4.88	5.01	5.11	5.19	5.21
29	5.07	4.99	4.97	5.25		4.53	5.08	5.08	4.99	5.17	5.21	5.24
30	5.07	4.95	4.97	5.19		4.70	5.10	5.16	4.99	5.21	5.19	5.24
31	5.05		4.97	5.17		4.63		5.18		5.17	5.17	



## Nottoway River near Stony Creek, Va.

Location.- Chain gage at bridge on Petersburg-Emporia highway 2 miles above Island Swamp Creek and  $\frac{3}{4}$  miles south of Stony Creek, Sussex County.

Drainage area.- 586 square miles.

Records available.- March 1930 to September 1934.

Extremes.- Maximum discharge recorded during year, 4,310 second-feet Mar. 7 (gage height, 15.38 feet); minimum, 17 second-feet Oct. 1, 18.  
1930-34: Maximum discharge recorded, 4,470 second-feet Mar. 7, 9, 1932 (gage height, 15.66 feet); minimum, 5 second-feet Sept. 2, 5, 1932 (gage height, 0.62 foot).

Remarks.- Records good. Discharge estimated for Nov. 12, Mar. 23, 30, Apr. 27, June 30, July 17, Sept. 19, 26, and for periods of ice effect, Jan. 30, 31, Feb. 9-11, 18, 24, 25.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	29	56	87	82	772	2,170	305	1,330	265	325	76
2	21	34	55	118	99	595	1,960	305	798	772	172	71
3	28	36	55	165	620	523	1,420	410	595	1,300	144	523
4	38	37	62	180	595	2,050	850	571	477	3,260	246	670
5	36	37	62	151	432	3,060	746	670	410	2,900	151	246
6	29	46	66	124	211	3,580	645	547	410	410	124	432
7	25	46	76	124	155	4,210	571	358	432	246	99	1,180
8	25	150	82	124	158	2,500	523	305	367	195	82	1,900
9	23	87	87	118	130	798	477	265	346	211	71	1,900
10	21	66	118	111	70	695	798	228	265	410	228	2,530
11	25	62	130	105	90	670	1,070	220	265	246	203	500
12	24	54	118	105	111	670	931	203	246	211	595	325
13	24	45	105	118	118	645	695	188	246	165	798	2,330
14	22	48	87	130	144	595	523	172	246	137	500	3,720
15	21	53	76	165	151	547	500	188	203	124	285	1,840
16	21	57	76	151	151	523	571	3,910	172	111	172	1,330
17	20	54	71	124	144	477	1,510	3,060	168	130	620	1,930
18	17	51	76	111	110	410	1,810	1,480	151	105	571	2,300
19	20	49	82	105	118	367	1,180	645	305	87	246	1,000
20	22	51	87	93	137	477	798	477	620	82	172	645
21	25	57	82	99	265	1,450	695	325	325	165	137	645
22	25	62	211	99	285	1,630	571	285	195	265	130	670
23	25	62	172	111	228	1,000	477	265	158	180	144	477
24	25	57	130	124	200	670	454	285	137	246	195	367
25	25	57	105	118	190	645	571	1,180	124	203	195	305
26	27	57	99	118	346	904	477	2,780	158	137	151	270
27	27	62	93	111	877	1,100	430	2,500	130	99	151	246
28	29	57	151	111	958	2,600	388	904	124	87	158	220
29	29	57	151	99		2,780	325	2,300	571	172	105	195
30	29	57	99	70		1,700	305	2,860	300	670	93	172
31	29		87	50		1,480		2,300		595	82	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					38	17	25.1	0.043		0.05		
November					130	29	55.2	.094		.10		
December					211	55	97.0	.166		.19		
January					180	50	117	.200		.23		
February					958	70	257	.439		.46		
March					4,210	367	1,294	2.21		2.55		
April					2,170	305	815	1.39		1.55		
May					3,910	172	985	1.68		1.94		
June					1,330	124	342	.584		.65		
July					3,260	82	460	.785		.90		
August					798	71	236	.403		.46		
September					3,720	71	937	1.65		1.84		
The year.					4,210	17	472	.805		10.92		

Meherrin River near Lawrenceville, Va.

**Location.**- Water-stage recorder at Gholson Bridge, 3 miles southeast of Lawrenceville, Brunswick County.

**Drainage area.**- 553 square miles.

**Records available.**- December 1928 to September 1934.

**Extremes.**- Maximum discharge during year, 5,880 second-feet Mar. 6 (gage height, 19.63 feet); minimum, 6 second-feet Oct. 14 (gage height, 0.78 foot).  
1928-34: Maximum discharge, 7,590 second-feet Mar. 7, 1932 (gage height, 23.42 feet); minimum, 5 second-feet Sept. 23, 24, 1932 (gage height, 0.72 foot).

**Remarks.**- Records excellent except those for high stages, those estimated for Sept. 22, 23, and those for periods of ice effect, Jan. 30, 31, Feb. 9-11, 18, 24, 25, which are fair. Flow regulated during low water by small dam and mill just above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	29	44	78	92	533	1,710	216	974	215	236	112
2	33	34	45	116	472	435	934	213	557	810	1,170	104
3	23	36	52	150	504	1,250	619	255	408	2,890	1,840	94
4	27	30	44	134	242	3,600	490	331	339	622	280	256
5	23	16	42	108	160	5,030	558	512	318	284	192	213
6	24	46	57	95	149	5,410	450	334	351	208	137	586
7	22	54	72	93	124	1,350	378	256	362	165	116	1,610
8	9	66	76	78	114	607	348	214	405	138	756	3,370
9	24	56	76	82	90	498	729	181	268	243	956	4,260
10	20	49	78	94	40	445	3,620	167	226	171	805	758
11	21	42	62	77	70	436	1,640	159	206	152	1,870	363
12	20	30	66	80	104	470	746	152	200	120	523	280
13	20	48	73	84	123	464	638	148	230	110	659	852
14	19	40	75	96	108	414	456	133	178	102	294	1,100
15	9	47	57	77	118	395	362	280	160	100	187	1,260
16	26	45	52	102	106	367	637	3,770	154	144	146	1,220
17	19	43	56	93	97	330	2,580	3,250	128	117	150	3,110
18	21	50	54	88	70	294	1,170	688	126	98	216	1,340
19	24	51	56	86	87	248	720	428	946	76	140	607
20	22	48	88	81	188	1,180	584	321	572	71	117	492
21	22	40	110	82	289	3,450	480	262	238	133	118	477
22	21	52	95	65	208	1,210	406	222	166	228	135	380
23	28	46	114	93	178	620	360	260	138	214	113	310
24	18	54	95	112	160	484	336	301	126	238	292	266
25	21	48	65	93	150	559	367	1,340	114	126	352	256
26	21	50	65	93	695	1,190	316	4,180	114	97	828	216
27	21	45	73	88	1,960	1,060	270	2,120	100	85	398	205
28	22	38	90	88	892	2,910	248	578	804	80	223	210
29	32	48	115	68		3,880	230	1,590	593	598	220	204
30	30	42	70	50		1,100	216	1,920	220	708	153	210
31	23		80	30		1,050		2,450		492	128	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October					39	9	22.7	0.041	0.05			
November					65	16	44.1	.080	.09			
December					115	42	71.2	.129	.15			
January					150	30	88.8	.161	.19			
February					1,960	40	271	.490	.51			
March					5,410	248	1,331	2.41	2.78			
April					3,620	216	754	1.36	1.52			
May					4,180	133	878	1.59	1.83			
June					974	100	324	.586	.65			
July					2,890	71	317	.66	.73			
August					1,870	113	444	.803	.93			
September					4,260	94	823	1.49	1.66			
The year					5,410	9	449	.812	11.02			

## Roanoke River at Roanoke, Va.

Location.- Chain gage at Walnut Street highway bridge in Roanoke, Roanoke County. Zero of gage is 906.84 feet above mean sea level.

Drainage area.- 388 square miles.

Records available.- July 1896 to September 1934.

Average discharge.- 34 years (1896-97 1898-1902, 1903-5, 1907-34), 397 second-feet.

Extremes.- Maximum discharge recorded during year, 5,640 second-feet Mar. 28 (gage height, 7.45 feet); minimum, 28 second-feet Feb. 20 (gage height, 0.47 foot).  
1896-1934: Maximum discharge recorded, 18,900 second-feet Aug. 6, 1901 (gage height, 14.34 feet); practically no flow on Dec. 23, 1909, when flow was retarded by freezing (gage height, 0.0 foot).

Remarks.- Records good except those estimated, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*60	63	58	*60	50	79	*600	216	157	*100	120	60
2	60	60	56	73	49	77	495	205	126	147	175	*57
3	77	73	*60	75	53	730	422	205	*110	106	190	*53
4	61	63	64	64	*54	2,100	376	183	106	*90	150	50
5	60	*100	63	73	55	2,100	332	176	104	77	*110	56
6	56	79	73	70	66	975	311	*180	106	68	109	56
7	58	101	63	*80	61	595	290	170	111	63	109	70
8	*60	73	63	104	48	790	*280	147	104	*120	75	63
9	56	70	63	101	60	975	270	132	150	88	68	*59
10	53	63	*64	88	40	648	790	132	*120	91	66	55
11	53	63	66	81	*45	*480	595	129	104	84	66	58
12	58	*63	61	73	53	354	520	135	93	91	*66	53
13	58	63	61	77	60	332	422	*125	84	157	96	66
14	63	66	60	*75	48	250	376	114	79	111	73	61
15	*63	60	56	68	45	216	*340	114	73	*90	77	81
16	63	60	63	68	52	187	399	129	66	63	63	*2,400
17	93	53	*64	61	52	170	570	123	*60	53	58	520
18	114	56	64	58	*50	*160	1,610	117	231	52	77	270
19	75	*60	63	53	58	160	910	106	376	*150	*68	205
20	61	66	290	68	27	910	675	*120	205	63	58	154
21	66	64	196	*64	52	910	570	166	132	55	53	129
22	*65	64	106	60	*55	648	*500	123	109	*30	56	109
23	64	66	96	60	56	520	422	114	91	56	56	*104
24	64	68	*80	56	55	422	376	101	*83	52	53	93
25	63	64	*70	56	*40	*440	376	98	75	66	68	91
26	58	*64	91	58	58	790	332	96	63	48	*120	88
27	53	63	70	60	49	850	311	*90	*63	975	173	86
28	60	63	68	*58	98	4,650	270	77	*63	231	91	84
29	*62	58	68	55	55	1,340	*250	104	63	*230	68	91
30	53	*58	52	46	50	850	223	*100	68	290	66	*110
31	58		*60	33		675		198		147	60	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October . . . . .	114	53	63.8	0.164	0.19
November . . . . .	101	53	66.2	.171	.19
December . . . . .	290	52	78.5	.202	.23
January . . . . .	104	33	67.0	.173	.20
February . . . . .	98	27	52.5	.135	.14
March . . . . .	4,650	77	787	2.03	2.34
April . . . . .	1,610	223	474	1.22	1.36
May . . . . .	216	77	136	.351	.40
June . . . . .	376	60	112	.289	.32
July . . . . .	975	48	133	.343	.40
August . . . . .	190	53	88.7	.229	.26
September . . . . .	2,400	50	181	.466	.52
The year . . . . .	4,650	27	188	.485	6.55

\*Estimated.

## Roanoke River at Niagara, Va.

Location.- Water-stage recorder 200 feet below power plant of Appalachian Electric Power Co. at Niagara, Roanoke County, and 2 miles below mouth of Tinker Creek. Zero of gage is 820.15 feet above mean sea level.

Drainage area.- 511 square miles.

Records available.- July 1926 to September 1934.

Extremes.- Maximum discharge during year, 8,320 second-feet Mar. 28 (gage height, 11.48 feet); minimum, 40 second-feet May 31 (gage height, 0.85 foot); minimum daily discharge, 92 second-feet Nov. 10.  
1926-34: Maximum discharge, 16,300 second-feet Aug. 16, 1928 (gage height, 17.38 feet); minimum, 14 second-feet July 11, 1928 (gage height, 0.45 foot); minimum daily discharge (estimated), 40 second-feet Nov. 6, 1931.

Remarks.- Records excellent except those estimated for Mar. 14-19, Apr. 23, Aug. 13, 24, Sept. 15, 16, which are fair. Flow regulated at dam and water-power plant 200 feet above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	117	113	110	124	102	160	846	318	238	199	174	102
2	134	110	110	128	106	186	874	312	200	270	351	101
3	102	108	110	128	104	1,040	610	348	188	154	216	100
4	102	120	108	132	110	3,070	524	268	170	135	270	100
5	102	155	116	212	112	2,990	504	295	222	135	178	100
6	102	147	120	136	114	1,600	448	298	233	136	191	101
7	104	125	104	156	122	912	400	259	228	135	165	94
8	104	128	96	161	107	1,050	434	268	175	213	160	115
9	102	116	98	160	106	1,730	494	269	223	153	162	102
10	100	92	104	160	110	980	912	208	196	142	131	94
11	99	98	107	160	107	744	806	234	178	142	115	95
12	102	114	107	150	98	568	672	178	178	145	117	98
13	100	111	120	149	110	466	554	234	150	268	200	108
14	102	127	113	136	114	400	516	196	166	146	134	98
15	102	109	104	134	114	320	446	200	135	144	174	200
16	100	111	100	136	112	300	635	234	136	142	156	3,000
17	168	108	100	136	111	280	1,170	212	108	142	122	738
18	114	108	108	134	110	270	2,250	206	498	134	119	382
19	128	108	236	122	118	270	1,320	164	464	284	127	276
20	123	107	472	126	119	1,220	975	192	266	191	113	264
21	114	118	284	114	102	1,440	776	268	206	135	122	230
22	111	110	194	104	115	985	653	250	192	165	114	218
23	110	108	140	121	130	800	600	174	165	128	110	184
24	108	116	130	118	120	644	579	175	159	115	110	175
25	110	122	116	121	100	679	546	186	142	114	124	170
26	116	122	180	112	116	974	446	186	136	108	162	152
27	102	116	141	113	166	2,230	434	180	136	1,110	201	156
28	100	107	122	113	209	5,690	378	182	136	786	132	143
29	107	106	122	112		2,030	414	202	138	498	142	132
30	124	108	122	112		1,260	369	161	157	395	114	156
31	118		122	108		982		302		255	108	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	168	99	111	0.217	0.25
November	155	92	115	.225	.25
December	472	98	139	.272	.31
January	212	104	133	.260	.30
February	209	98	117	.229	.24
March	5,690	150	1,170	2.29	2.64
April	2,250	369	680	1.33	1.48
May	348	160	230	.450	.52
June	488	108	197	.396	.43
July	1,110	108	233	.456	.53
August	351	108	155	.303	.35
September	3,000	94	266	.621	.58
The year	5,690	92	297	.581	7.88

## Roanoke River near Toshes, Va.

Location.- Water-stage recorder three-quarters of a mile below Smith Mountain Gap, 3 miles above Pigg River, and 7 miles northwest of Toshes, Pittsylvania County. Zero of gage is 588.99 feet above mean sea level.

Drainage area.- 1,020 square miles.

Records available.- September 1925 to September 1934.

Extremes.- Maximum discharge during year, 7,560 second-feet Mar. 28 (gage height, 8.38 feet); minimum (estimated), 120 second-feet Jan. 31.

1925-34: Maximum discharge, 26,500 second-feet Oct. 18, 1932 (gage height, 19.60 feet); minimum, 93 second-feet Sept. 19, 20, 1932 (gage height, 0.96 foot).

Remarks.- Records excellent except those estimated for Mar. 4, 5, 9, Mar. 30 to Apr. 2, Apr. 9-11, and for periods of ice effect, Jan. 30 to Feb. 4, Feb. 10-12, Feb. 25 to Mar. 2, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	203	247	247	326	300	400	1,700	664	586	365	505	220
2	216	243	247	326	400	450	1,400	594	458	365	656	199
3	247	266	247	316	340	1,230	1,300	586	413	407	579	203
4	208	311	257	300	280	4,000	1,170	625	371	285	362	212
5	203	316	252	326	295	5,000	1,070	519	394	252	394	195
6	203	432	252	594	266	3,200	1,030	549	444	257	306	186
7	208	371	275	471	252	1,740	953	527	602	261	394	252
8	203	295	257	498	250	1,470	949	485	451	261	368	229
9	203	285	243	458	252	2,200	1,050	478	401	321	300	225
10	199	270	234	401	160	1,740	1,400	519	419	321	275	216
11	199	257	238	371	200	1,300	1,500	689	371	280	247	190
12	195	238	243	354	360	992	1,300	485	354	275	229	190
13	199	252	238	360	290	830	1,080	401	360	266	337	270
14	208	257	252	348	243	771	932	413	306	438	519	261
15	203	266	252	316	266	697	881	419	295	257	295	272
16	203	252	238	306	267	602	1,300	556	275	229	316	4,570
17	295	243	234	300	243	564	2,050	478	266	225	266	2,830
18	388	252	234	290	234	534	3,400	425	261	238	225	1,060
19	266	261	247	290	252	519	2,600	401	1,860	220	261	898
20	247	257	1,320	285	261	1,870	1,960	348	881	504	243	534
21	247	252	1,020	275	247	2,500	1,600	371	556	296	216	464
22	235	261	512	270	261	1,780	1,540	419	407	384	212	401
23	234	257	386	261	295	1,380	1,130	464	360	300	225	376
24	238	261	321	266	275	1,130	992	386	321	225	238	348
25	238	270	295	261	260	1,070	974	360	300	212	556	321
26	225	270	306	266	180	1,560	906	354	280	321	784	321
27	234	261	438	261	200	2,330	813	371	270	321	873	306
28	229	257	360	257	430	6,610	771	337	266	1,560	407	311
29	225	247	311	252		4,040	689	360	252	1,980	275	539
30	229	247	266	200		2,400	680	451	261	2,710	257	689
31	243		295	120		2,000		594		763	229	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	398	195	228	0.224	0.26
November	432	238	272	.267	.30
December	1,320	234	339	.332	.38
January	594	120	320	.314	.36
February	430	160	271	.266	.29
March	6,610	400	1,839	1.80	2.06
April	3,400	680	1,298	1.27	1.42
May	689	337	472	.463	.53
June	1,860	252	435	.426	.48
July	2,710	212	487	.477	.55
August	873	212	367	.360	.42
September	4,570	186	577	.566	.63
The year.	6,610	120	577	.566	7.69

## Roanoke River at Altavista, Va.

Location.- Water-stage recorder at highway bridge a quarter of a mile south of Altavista, Campbell County. Zero of gage is 503.25 feet above mean sea level.

Drainage area.- 1,802 square miles.

Records available.- August 1930 to September 1934.

Extremes.- Maximum discharge during year, 17,800 second-feet Mar. 28 (gage height, 18.54 feet); minimum, 94 second-feet Jan. 31 (gage height, 1.66 feet).

1930-34: Maximum discharge, 34,700 second-feet (revised) Oct. 18, 1932 (gage height, 29.30 feet); minimum, that of Jan. 31, 1934.

Remarks.- Records excellent except those estimated for periods of ice effect Feb. 2, Feb. 26 to Mar. 2, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	339	435	487	549	471	650	2,870	1,020	1,120	540	930	375
2	451	431	487	630	620	750	2,370	1,020	950	655	920	355
3	447	427	475	655	630	1,790	2,630	990	785	750	870	423
4	423	585	475	630	554	10,400	1,790	900	705	585	680	483
5	355	572	500	630	572	9,010	1,650	900	655	419	630	387
6	355	655	495	960	549	5,640	1,480	812	730	415	540	359
7	351	785	504	1,160	483	3,300	1,400	812	785	403	475	1,660
8	343	630	526	1,060	515	2,710	1,300	785	930	375	655	389
9	339	526	526	1,090	522	3,390	1,370	705	930	439	508	536
10	335	504	500	900	375	3,030	2,150	680	705	540	451	463
11	335	483	491	758	339	2,310	2,550	930	655	431	407	391
12	335	479	491	705	536	1,790	2,150	1,160	608	415	411	351
13	343	463	479	705	608	1,480	1,790	840	655	471	415	800
14	359	471	467	730	479	1,390	1,550	680	630	531	758	655
15	359	483	471	705	479	1,230	1,440	655	554	597	522	711
16	355	475	471	655	522	1,090	2,440	785	522	427	423	9,810
17	439	455	467	630	491	1,020	4,110	960	504	411	447	7,550
18	705	459	463	585	479	990	5,370	812	504	411	407	2,470
19	608	471	483	567	495	960	4,560	812	2,170	399	565	1,710
20	467	471	1,490	562	531	2,820	3,300	730	1,830	375	479	1,260
21	427	475	2,310	544	513	5,190	2,630	655	990	702	407	960
22	423	483	1,610	549	518	3,500	2,150	680	705	455	347	870
23	423	487	990	540	608	2,470	1,850	680	655	585	355	758
24	419	487	730	540	585	2,030	1,590	758	549	435	375	680
25	427	495	608	536	540	1,830	1,510	785	513	391	593	630
26	415	513	558	531	380	2,470	1,440	960	491	423	1,390	585
27	403	513	630	540	400	3,300	1,260	785	431	803	1,830	724
28	407	495	705	536	680	14,400	1,200	680	435	1,460	840	680
29	415	491	630	522		8,540	1,090	608	435	2,070	585	1,100
30	415	483	549	427		4,290	1,060	785	467	3,840	451	1,670
31	427		483	230		8,200		1,200		1,510	419	
Month	Maximum				Minimum		Mean		Per square mile		Run-off in inches	
October	705				335		408		0.226		0.26	
November	785				427		506		.281		.31	
December	2,310				463		660		.365		.42	
January	1,160				230		657		.355		.42	
February	1,850				339		517		.287		.30	
March	14,400				660		3,441		1.91		2.20	
April	5,370				1,060		2,117		1.17		1.30	
May	1,200				608		827		.459		.53	
June	2,170				431		753		.418		.47	
July	3,840				375		718		.378		.46	
August	1,830				347		617		.342		.39	
September	9,810				351		1,546		.747		.83	
The year.	14,400				230		1,050		.583		7.89	

## Roanoke River at Brookneal, Va.

Location.- Water-stage recorder at highway bridge at Virginian Railway station at Brookneal, Campbell County, 2½ miles above Falling River. Zero of gage is 351.14 feet above mean sea level.

Drainage area.- 2,420 square miles.

Records available.- April 1923 to September 1934.

Average discharge.- 11 years, 2,050 second-feet.

Extremes.- Maximum discharge during year, 19,300 second-feet Mar. 28 (gage height, 20.44 feet); minimum, 413 second-feet Jan. 31 (gage height, 2.77 feet).  
1923-34: Maximum discharge, 42,800 second-feet Aug. 12, 1928 (gage height, 37.15 feet); minimum (estimated), 191 second-feet Sept. 2, 1932.

Remarks.- Records good. Discharge estimated for Aug. 8, 9.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	454	548	653	892	507	948	3,760	1,480	1,610	612	1,320	571
2	548	552	628	1,000	865	1,060	3,140	1,440	1,280	650	1,220	525
3	704	548	628	975	948	2,510	2,640	1,410	1,070	1,040	1,130	602
4	590	628	653	892	948	13,900	2,320	1,410	1,100	695	1,070	678
5	529	730	678	865	838	13,400	2,080	1,380	1,070	669	840	678
6	484	758	653	1,060	810	8,100	1,930	1,250	1,190	590	758	562
7	470	920	678	1,610	758	4,600	1,790	1,220	1,220	575	704	2,580
8	462	840	704	1,440	733	3,400	1,720	1,190	1,350	539	1,000	2,750
9	448	730	704	1,400	758	4,050	1,760	1,100	1,410	511	800	1,070
10	440	653	653	1,240	610	3,850	2,640	1,070	1,070	704	653	758
11	440	653	628	1,060	525	2,970	3,060	1,380	1,040	678	628	653
12	444	628	628	975	610	2,320	2,720	1,720	1,040	585	730	1,320
13	453	614	628	975	948	1,860	2,320	1,280	1,070	571	840	1,180
14	457	628	628	1,000	810	1,650	2,000	1,040	1,040	730	1,010	1,350
15	470	628	628	948	708	1,540	1,790	1,040	840	758	922	1,130
16	475	628	628	865	758	1,440	3,460	1,650	758	653	628	5,880
17	511	609	628	838	758	1,320	5,900	1,650	730	525	575	13,400
18	758	599	628	810	708	1,250	7,100	1,280	1,270	502	571	3,930
19	840	628	678	784	708	1,250	6,120	1,070	2,510	497	805	2,060
20	653	628	1,820	784	758	2,910	4,300	1,010	3,100	470	868	1,790
21	562	653	3,660	784	733	6,710	3,400	950	1,650	506	618	1,350
22	548	653	1,970	758	733	4,500	2,800	922	1,190	678	520	1,160
23	548	628	1,210	758	810	3,220	2,480	1,010	950	678	488	1,010
24	539	653	1,000	784	838	2,720	2,160	1,010	922	678	497	922
25	543	653	892	758	758	2,400	2,000	1,160	755	525	539	840
26	534	653	892	758	576	2,880	1,930	1,350	758	475	980	812
27	502	678	1,060	758	610	3,950	1,790	1,070	730	525	2,000	895
28	516	653	1,150	758	975	16,100	1,680	922	653	868	1,960	1,350
29	525	653	975	733		12,600	1,580	980	653	2,220	950	1,350
30	534	653	810	658		5,670	1,480	1,250	628	3,780	704	1,860
31	529		733	525		4,300		1,480		2,620	599	
Month	Maximum			Minimum			Mean			Per square mile		Run-off in inches
October	840			440			534			0.221		0.25
November	980			548			658			.272		.30
December	3,660			628			920			.380		.44
January	1,610			525			918			.379		.44
February	975			507			754			.312		.32
March	16,100			948			4,495			1.86		2.14
April	7,100			1,480			2,795			1.15		1.23
May	1,720			922			1,230			.508		.59
June	3,100			628			1,153			.476		.53
July	3,780			470			881			.364		.42
August	2,000			488			869			.359		.41
September	13,400			502			1,831			.757		.84
The year.	16,100			440			1,423			.588		7.96

## Roanoke River near Clover, Va.

Location.- Water-stage recorder  $3\frac{1}{2}$  miles below mouth of Roanoke Creek and 6 miles east of Clover, Halifax County.

Drainage area.- 3,230 square miles.

Records available.- August 1929 to September 1934.

Extremes.- Maximum discharge during year, 20,500 second-feet Mar. 29 (gage height, 15.77 feet); minimum, 518 second-feet Oct. 11 (gage height, 1.21 feet).  
1929-34: Maximum discharge, 54,300 second-feet Oct. 19, 1932 (gage height, 23.19 feet); minimum, 204 second-feet Sept. 3, 1932 (gage height, 0.50 foot).

Remarks.- Records excellent except those estimated for Feb. 28 to Mar. 7, July 16 to Aug. 13 and for period of ice effect, Feb. 28, 27, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	606	713	854	1,080	692	1,180	5,710	1,900	2,800	1,280	2,000	762
2	645	727	841	1,460	950	1,300	4,780	1,650	2,150	2,150	1,700	706
3	727	741	826	1,460	1,330	2,800	3,900	1,900	1,700	2,450	1,500	645
4	870	748	841	1,330	1,280	10,500	3,240	2,250	1,510	1,500	1,450	638
5	741	1,000	863	1,240	1,240	16,500	3,020	2,150	1,560	1,420	1,250	648
6	652	1,080	907	1,280	1,120	14,500	2,700	1,900	1,800	1,160	1,100	307
7	587	1,160	961	1,750	1,080	8,600	2,600	1,700	1,750	870	950	3,580
8	574	1,280	992	2,100	1,000	6,230	2,400	1,650	1,700	796	1,300	12,100
9	555	1,080	1,000	1,900	964	5,000	3,080	1,610	1,900	755	1,150	5,810
10	537	900	977	1,900	863	5,230	4,560	1,460	1,750	748	950	2,180
11	524	834	922	1,560	762	4,340	3,900	1,510	1,650	969	900	1,240
12	524	819	870	1,420	720	5,460	3,790	2,200	1,460	885	1,000	964
13	524	812	848	1,380	984	2,600	3,240	2,050	1,650	922	1,200	4,210
14	537	855	841	1,460	1,160	2,500	2,300	1,560	1,600	819	1,720	4,340
15	555	855	834	1,420	1,080	2,300	2,500	1,460	1,330	1,240	1,280	3,350
16	574	826	848	1,280	1,000	2,150	3,580	1,600	1,060	1,000	1,120	3,240
17	600	798	863	1,200	1,000	1,950	7,890	2,450	1,900	800	834	14,800
18	727	783	863	1,160	915	1,800	6,250	1,950	1,200	700	762	11,900
19	1,040	790	878	1,120	930	1,750	7,890	1,600	4,520	660	762	4,120
20	1,040	834	1,160	1,080	1,040	3,820	5,950	1,420	4,780	650	1,080	2,700
21	834	812	3,670	1,080	1,000	8,510	4,560	1,330	3,150	750	1,040	2,250
22	727	848	3,460	1,040	1,040	7,390	3,680	1,240	1,900	1,100	783	1,800
23	713	841	2,100	1,080	1,120	4,890	3,240	1,280	1,420	800	686	1,560
24	706	841	1,510	1,080	1,200	3,790	2,910	1,420	1,280	1,000	826	1,390
25	699	848	1,280	1,040	1,160	3,460	2,500	2,460	1,160	800	783	1,260
26	699	863	1,200	1,000	800	3,900	2,450	2,250	1,000	650	848	1,200
27	692	863	1,330	1,000	850	4,670	2,350	2,050	964	700	1,590	1,160
28	672	863	1,510	1,000	1,200	11,900	2,200	1,510	922	1,200	3,080	1,510
29	679	841	1,460	1,000		19,300	2,100	1,750	878	3,500	2,040	1,700
30	706	841	1,160	915		12,100	1,950	3,570	663	5,000	1,200	2,150
31	713		1,040	706		6,480		2,910		3,500	892	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,040	524	677	0.210	0.24
November	1,280	713	870	.269	.30
December	3,870	826	1,222	.378	.44
January	2,100	706	1,272	.394	.45
February	1,330	692	1,017	.315	.33
March	19,300	1,180	5,937	1.64	2.12
April	8,250	1,950	3,601	1.12	1.32
May	3,570	1,240	1,872	.680	.67
June	4,780	863	1,748	.541	.60
July	5,000	650	1,328	.411	.47
August	3,080	686	1,219	.377	.43
September	14,800	638	3,166	.981	1.09
The year	19,300	524	2,015	.624	8.46



## Roanoke River at Roanoke Rapids, N. C.

Location.— Water-stage recorder  $1\frac{1}{2}$  miles below Stage highway bridge at Roanoke Rapids, Halifax County.

Drainage area.— 8,410 square miles.

Records available.— February 1930 to September 1934.

Extremes.— Maximum discharge during year, 69,600 second-feet Apr. 11 (gauge height, 17.52 feet); minimum, 778 second-feet Nov. 5 (gauge height, 1.65 feet); minimum daily discharge, 962 second-feet Oct. 1.

1930-34: Maximum discharge, 90,400 second-feet Oct. 21, 1932; minimum, 458 second-feet Sept. 21, 1932 (gauge height, 1.25 feet); minimum daily discharge, 472 second-feet Sept. 21, 1932.

Remarks.— Records good except those estimated Feb. 9-14, which are fair. Flow regulated from power operations above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	962	1,350	1,860	2,620	2,140	11,400	20,400	4,700	15,200	2,370	8,770	2,890		
2	1,210	1,490	1,930	2,450	2,070	9,090	17,300	4,470	15,200	2,980	11,100	2,370		
3	1,170	1,500	1,800	2,620	3,070	8,450	14,800	4,810	11,100	4,260	10,100	2,400		
4	1,060	1,610	1,930	3,160	3,160	20,900	11,400	4,930	8,150	5,560	5,700	2,220		
5	1,120	1,530	1,930	3,350	3,550	46,900	9,410	5,180	7,400	5,580	3,950	2,070		
6	1,380	1,670	1,860	3,070	3,260	58,200	8,450	5,180	7,860	4,470	3,850	2,140		
7	1,640	1,800	2,140	3,160	3,260	58,800	8,150	4,700	13,200	4,260	2,980	9,730		
8	1,410	2,370	2,220	3,160	2,800	25,600	7,400	3,950	18,600	3,950	3,260	34,000		
9	1,360	2,450	2,370	3,750	2,750	13,500	8,680	3,560	14,400	2,980	8,150	51,300		
10	1,200	2,620	2,290	4,360	2,700	11,100	50,100	3,550	13,200	2,620	6,530	28,100		
11	1,100	2,220	2,370	4,470	2,650	10,700	58,600	3,450	9,950	2,980	4,360	15,600		
12	1,120	1,860	2,220	4,150	2,600	9,730	39,800	3,160	6,670	2,370	4,700	10,700		
13	1,070	1,800	2,070	3,650	2,550	8,450	24,100	3,450	5,830	2,710	3,650	7,860		
14	1,040	1,800	2,140	3,220	2,500	7,100	14,400	4,260	5,180	5,020	5,430	10,300		
15	1,160	1,800	1,930	3,350	2,450	6,670	10,400	3,750	5,050	4,580	3,950	14,800		
16	1,130	1,800	2,070	2,980	2,800	6,110	8,450	6,820	4,580	3,650	4,050	11,800		
17	1,180	1,930	1,930	3,070	2,540	5,560	13,600	16,000	4,050	5,180	3,070	28,800		
18	1,120	1,800	1,930	2,980	2,450	5,180	22,200	15,600	3,750	3,350	2,800	38,500		
19	1,260	1,730	1,860	2,800	2,370	4,700	20,400	10,700	4,050	2,370	2,290	38,500		
20	1,510	1,730	2,000	2,620	2,450	5,660	17,300	6,530	7,950	2,140	2,070	20,100		
21	1,730	1,730	2,280	2,450	2,620	18,100	13,600	4,810	8,450	2,000	1,930	12,500		
22	2,140	1,860	3,990	2,450	2,800	21,300	11,400	3,850	8,150	2,370	2,540	9,410		
23	1,930	1,930	6,950	2,450	2,710	18,200	9,730	3,450	5,050	2,370	2,800	7,250		
24	1,550	1,930	6,810	2,450	2,710	12,900	8,450	3,070	4,150	2,540	2,220	5,700		
25	1,410	2,000	3,950	2,620	2,980	10,400	7,850	4,290	3,550	2,710	3,070	4,930		
26	1,470	1,860	3,070	2,540	3,850	12,600	7,100	13,300	3,550	2,450	3,070	4,470		
27	1,460	1,930	2,710	2,370	10,000	15,200	6,670	15,600	3,350	2,290	7,840	4,050		
28	1,410	1,800	2,370	2,370	11,800	21,500	5,970	10,700	3,450	2,450	10,000	3,850		
29	1,490	1,860	2,800	2,290		39,100	5,300	8,450	2,980	2,900	9,090	4,360		
30	1,470	2,000	3,160	2,140		46,400	5,180	8,150	2,800	8,450	6,530	5,560		
31	1,390		2,890	2,070		34,800		13,600		9,090	4,050			
Month					Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October					2,140		962		1,330		0.158		0.18	
November					2,620		1,350		1,860		.221		.25	
December					6,950		1,800		2,640		.314		.36	
January					4,470		2,070		2,940		.350		.40	
February					11,800		2,070		3,350		.398		.41	
March					58,800		4,700		18,800		2.24		2.58	
April					58,600		5,180		15,600		1.85		2.06	
May					16,000		3,070		6,710		.798		.92	
June					18,600		2,800		7,560		.899		1.00	
July					9,090		2,000		3,640		.433		.50	
August					11,100		1,930		4,960		.590		.68	
September					51,300		2,070		13,200		1.57		1.75	
The year.					58,800		962		6,880		.818		11.09	

## Blackwater River near Union Hall, Va.

Location.- Water-stage recorder at highway bridge at Kemps Ford, 1½ miles above Gills Creek and 4 miles north of Union Hall, Franklin County. Zero of gage is 693.13 feet above mean sea level.

Drainage area.- 208 square miles.

Records available.- March 1925 to September 1934.

Extremes.- Maximum discharge during year, 3,190 second-feet Mar. 28 (gage height, 7.09 feet); minimum, 18 second-feet Feb. 10 (gage height, 1.46 feet).  
1925-34: Maximum discharge recorded, 10,800 second-feet Aug. 11, 1928; minimum, 13 second-feet Sept. 20, 1932 (gage height, 1.42 feet).

Remarks.- Records excellent except those estimated for periods of ice effect, Dec. 29-31, Jan. 30, 31, Feb. 3-5, 10, 11, 13, 14, 20-22, Feb. 25 to Mar. 1, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	62	73	73	115	100	275	148	176	80	106	48
2	55	62	73	76	118	126	242	145	142	95	95	46
3	69	69	73	71	100	425	213	142	126	101	101	46
4	60	80	78	65	80	1,030	194	148	112	75	90	46
5	56	93	76	76	70	612	183	145	123	68	80	46
6	56	101	73	118	69	300	172	145	145	70	78	42
7	54	96	76	115	67	202	169	142	129	65	75	63
8	54	76	76	133	67	210	172	139	142	59	78	59
9	53	69	78	112	67	217	183	132	129	68	80	61
10	53	67	73	96	50	183	266	212	114	78	72	52
11	51	65	73	85	70	162	237	244	109	70	61	48
12	51	67	73	80	80	136	210	158	104	78	57	80
13	53	67	71	83	80	129	187	136	101	75	130	59
14	54	69	69	83	70	126	172	132	98	82	106	84
15	54	71	71	76	71	120	162	148	88	63	82	110
16	53	69	67	69	72	112	321	169	85	54	63	1,140
17	85	67	67	69	70	109	415	145	82	59	52	501
18	112	67	67	69	70	106	549	123	103	48	54	172
19	71	67	67	67	70	112	346	114	699	46	65	262
20	60	69	322	67	70	423	292	109	234	138	65	145
21	60	69	201	67	60	333	254	106	166	59	57	106
22	58	69	101	65	80	198	225	101	139	92	52	90
23	58	69	80	67	88	176	210	181	117	61	61	88
24	60	73	71	65	80	166	198	132	106	50	82	88
25	62	78	69	62	70	172	202	112	101	84	162	138
26	60	73	73	62	70	258	183	112	95	187	149	85
27	58	73	93	65	70	463	172	104	88	130	182	75
28	60	71	80	67	70	1,900	169	101	80	155	88	75
29	62	69	70	69		570	158	106	78	263	66	192
30	62	71	50	50		346	152	200	102	398	57	231
31	62		70	60		288		262		155	52	
Month	Maximum					Minimum			Mean		Per square mile	Run-off in inches
October	112					51			60.2		0.289	0.33
November	101					62			72.3		.342	.39
December	322					50			85.5		.411	.47
January	133					50			76.8		.368	.43
February	118					50			75.5		.363	.38
March	1,900					100			316		1.52	1.75
April	549					152			230		1.11	1.24
May	262					101			145		.697	.80
June	699					78			137		.659	.74
July	398					46			100		.481	.55
August	182					52			838		.403	.46
September	1,140					42			143		.687	.77
The year.	1,900					42			127		.611	8.31

## Pigg River near Toshas, Va.

Location.- Water-stage recorder 0.4 mile below Fryingpan Creek and 1.7 miles northwest of Toshas, Pittsylvania County. Zero of gage is 802.55 feet above mean sea level.

Drainage area.- 394 square miles.

Records available.- August 1930 to September 1934.

Extremes.- Maximum discharge during year, 4,680 second-feet Sept. 16 (gage height, 13.11 feet); minimum, 52 second-feet Aug. 17 (gage height, 2.61 feet).  
1930-34: Maximum discharge, 10,000 second-feet Oct. 17, 1932 (gage height, 21.98 feet); minimum, 22 second-feet Aug. 31, 1932 (gage height, 2.32 feet).

Remarks.- Records good except those estimated for periods of ice effect, Dec. 30, Jan. 30, 31, Feb. 10, 11, 20, 21, Feb. 25 to Mar. 1, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	113	125	179	208	200	497	215	244	96	116	89
2	73	113	126	200	219	363	407	218	194	356	110	76
3	119	128	119	176	202	1,340	331	202	206	170	135	109
4	86	191	130	159	154	2,800	309	206	170	124	176	106
5	86	196	130	172	156	963	278	192	287	110	117	89
6	84	204	129	227	148	486	262	182	286	112	124	87
7	78	180	146	261	148	367	258	177	251	100	124	460
8	70	140	148	295	142	358	231	178	579	90	106	242
9	70	126	133	262	138	371	320	160	259	107	103	158
10	72	120	128	215	130	307	574	172	223	97	90	98
11	70	134	130	196	150	280	324	575	210	100	80	62
12	73	120	119	189	198	238	324	302	292	106	67	100
13	80	126	122	200	167	219	277	205	274	148	78	326
14	76	126	126	200	138	223	266	174	162	124	77	271
15	77	132	125	176	136	201	238	234	162	124	68	293
16	80	112	128	172	142	191	755	477	164	114	78	3,430
17	124	118	132	166	136	184	877	255	142	128	68	1,260
18	168	128	132	158	126	180	780	198	188	96	152	398
19	126	130	144	162	146	181	560	196	479	79	234	322
20	93	126	528	153	140	943	434	178	243	73	106	263
21	92	128	422	149	130	852	368	170	166	66	82	201
22	104	121	236	145	154	434	314	169	154	78	74	189
23	103	134	174	154	174	344	286	180	146	114	78	165
24	107	140	167	144	154	316	266	166	120	85	75	157
25	104	135	156	140	150	352	272	650	142	106	180	154
26	105	132	179	144	150	561	251	281	101	162	587	146
27	106	122	206	148	150	722	234	170	110	478	246	148
28	114	124	180	150	150	2,500	232	155	124	139	161	144
29	106	124	160	140		892	224	174	156	276	108	462
30	115	121	130	120		548	215	473	121	244	100	418
31	115		158	150		526		449		170	89	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	168	70	95.2	0.242	0.28
November	204	112	135	.343	.38
December	528	119	167	.424	.49
January	295	120	177	.449	.52
February	219	126	155	.393	.41
March	2,800	180	595	1.51	1.74
April	877	215	365	.926	1.03
May	650	155	250	.635	.73
June	579	101	212	.538	.60
July	478	66	141	.358	.41
August	587	67	129	.327	.38
September	3,430	76	348	.883	.99
The year.	3,430	66	231	.586	7.96

## Goose Creek near Huddleston, Va.

Location.- Water-stage recorder a quarter of a mile above Haden Bridge, three-eighths of a mile above Rockcastle Creek, and 4 miles above Huddleston, Bedford County.

Drainage area.- 187 square miles.

Records available.- September 1930 to September 1934. March 1925 to September 1927 (gage heights only) at a site a quarter of a mile downstream.

Extremes.- Maximum stage during year, 9.98 feet Mar. 27 (discharge not determined); minimum discharge, 3 second-feet Jan. 30 (gage height, 0.76 foot).  
1930-34: Maximum stage, 18.15 feet Oct. 17, 1932; minimum discharge, 3 second-feet Aug. 31, 1932, Jan. 30, 1934.

Remarks.- Records good except those for high stages and those estimated for periods of ice effect, Dec. 29-31, Jan. 30, 31, Feb. 4-11, 14, 15, 20, 21, Feb. 25 to Mar. 1, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	37	36	63	48	70	239	77	56	61	92	29
2	148	37	35	61	61	83	170	77	53	55	102	26
3	44	36	35	50	59	449	142	77	47	36	59	30
4	32	44	40	47	50	1,240	119	77	47	36	48	41
5	32	61	38	93	50	1,170	109	75	51	35	42	31
6	32	102	37	154	50	746	102	73	53	36	45	26
7	30	51	40	112	40	395	97	71	109	30	42	60
8	26	42	37	109	40	455	90	65	63	30	44	45
9	29	41	37	86	30	470	104	63	53	113	44	33
10	28	41	32	73	30	274	177	63	56	44	36	31
11	28	36	36	65	40	183	136	71	50	36	32	30
12	30	38	36	63	55	139	122	61	47	46	35	26
13	30	42	35	65	58	128	106	59	53	42	68	29
14	35	44	35	61	50	114	97	58	45	36	61	32
15	32	38	35	58	50	104	90	67	41	28	33	187
16	31	41	35	55	48	95	544	97	40	26	40	1,410
17	106	38	37	53	48	91	654	67	36	26	31	253
18	55	42	37	53	42	87	580	61	220	26	36	95
19	37	37	45	51	50	95	359	56	326	23	56	75
20	32	36	583	50	45	874	256	53	97	53	31	65
21	35	37	139	47	40	440	183	61	67	23	26	61
22	35	36	75	48	61	250	146	53	55	117	25	56
23	38	36	61	47	61	193	122	73	51	37	28	48
24	40	40	55	45	51	156	112	51	45	26	45	46
25	36	36	50	45	50	178	104	53	44	26	51	45
26	37	37	87	45	50	314	97	53	40	23	140	44
27	37	35	88	45	50	575	92	51	36	33	76	80
28	37	35	63	45	50	1,440	88	51	40	140	40	61
29	37	35	50	40		560	83	56	37	430	35	95
30	36	32	30	20		377	81	71	40	329	30	122
31	37		50	30		298		59		59	30	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					148	26	41.0	0.219		0.25		
November					102	32	41.8	.224		.25		
December					583	30	65.5	.350		.40		
January					154	20	60.6	.324		.37		
February					61	30	48.5	.259		.27		
March					1,440	70	388	2.07		2.39		
April					654	51	180	.963		1.07		
May					97	61	64.5	.345		.40		
June					326	36	66.7	.357		.40		
July					430	23	66.5	.356		.41		
August					140	25	48.5	.259		.30		
September					1,410	26	107	.572		.64		
The year					1,440	20	98.7	.528		7.15		

## Otter River near Altavista, Va.

Location.- Water-stage recorder 1½ miles below Flat Creek and 6 miles north of Altavista, Campbell County.

Drainage area.- 372 square miles.

Records available.- August 1929 to September 1934.

Extremes.- Maximum discharge during year, 3,120 second-feet Mar. 28 (gage height, 11.91 feet); minimum, 46 second-feet Oct. 2 (gage height, 2.08 feet).  
1929-34: Maximum discharge, about 7,140 second-feet Oct. 2, 1929 (gage height, 21.20 feet); minimum, 9 second-feet Sept. 1, 1932 (gage height, 1.71 feet).

Remarks.- Records good except those estimated Jan. 6-29, Feb. 2-16, Mar. 30 to Apr. 15, Apr. 19 to May 17, May 28 to June 2, July 1-8, 11-13, July 15 to Aug. 12, Aug. 20 to Sept. 3, Sept. 23-30, and for periods of ice effect, Dec. 29-31, Jan. 30 to Feb. 1, Feb. 25 to Mar. 1, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	60	72	145	150	150	600	250	120	200	100	90
2	47	64	73	163	220	216	500	240	110	150	100	90
3	50	65	72	130	150	1,100	450	230	108	120	100	100
4	50	77	82	118	120	2,450	400	230	111	110		118
5	50	79	87	157	120	1,990	350	220	148	100		104
6	51	166	79	445	110	1,130	300	210	150	100	90	90
7	52	118	83	292	100	550	270	200	205	90		318
8	58	84	78	292	100	865	250	190	151	80		266
9	55	76	74	232	90	874	300	190	124	73		128
10	53	73	73	195	80	618	600	200	122	70		103
11	54	71	71	168	100	496	450	220	115	70	80	96
12	57	71	73	150	130	348	350	190	111	70		90
13	58	68	72	161	130	291	300	180	117	70	86	99
14	65	74	77	148	120	267	260	170	100	63	99	189
15	69	73	76	131	110	232	250	300	92		69	111
16	65	64	74	122	110	206	1,550	1,000	87		60	1,340
17	75	62	74	117	90	193	2,130	300	80	60	56	1,290
18	87	79	76	110	80	178	2,120	166	160		369	598
19	68	78	90	110	117	186	1,000	150	1,060		230	405
20	57	71	1,030	107	107	1,520	550	150	366		150	276
21	56	76	438	98	98	929	470	142	272		100	210
22	55	76	226	103	137	556	400	128	168		90	186
23	52	76	168	105	148	468	370	137	143		80	170
24	56	77	134	100	110	386	340	125	130	70	80	160
25	56	77	121	98	100	386	320	125	118		120	150
26	53	76	170	101	100	586	300	122	105		400	140
27	51	72	270	101	100	700	290	117	100		300	130
28	56	73	159	98	100	2,440	280	115	101	200	200	250
29	61	73	110	69		1,250	270	115	94	400	150	400
30	56	73	70	70		900	260	200	94	200	110	200
31	60		110	90		700		150		150	100	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	87			47			57.4			0.154	0.18	
November	166			60			77.4			.208	.23	
December	1,030			70			144			.387	.45	
January	445			70			147			.395	.46	
February	220			80			115			.309	.32	
March	2,450			150			750			2.02	2.33	
April	2,130			250			543			1.46	1.63	
May	1,000			115			208			.559	.64	
June	1,060			80			165			.444	.50	
July	400			60			102			.274	.32	
August	400			56			126			.339	.39	
September	1,340			90			263			.707	.79	
The year.	2,450			47			225			.605	8.24	

## Falling River near Naruna, Va.

Location.- Chain gage at highway bridge 2 miles above mouth of Little Falling River and 2½ miles northeast of Naruna, Campbell County.

Drainage area.- 172 square miles.

Records available.- July 1929 to September 1934.

Extremes.- Maximum discharge recorded during year, 3,080 second-feet Mar. 28 (gage height, 11.50 feet); minimum, 24 second-feet Oct. 10 (gage height, 2.48 feet).  
1929-34: Maximum discharge recorded, 3,970 second-feet Oct. 17, 1932 (gage height, 13.58 feet); minimum, 3 second-feet Oct. 9, 1932 (gage height, 2.18 feet).

Remarks.- Records good. Discharge estimated June 8, 7, Aug. 1-3.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	40	50	99	76	83	234	87	107	165	80	32
2	71	38	51	90	92	88	178	79	101	103	150	32
3	47	43	47	90	74	262	152	165	87	85	100	34
4	33	192	52	76	107	1,940	136	147	78	66	43	42
5	30	60	52	87	64	1,080	112	110	119	96	36	46
6	30	62	80	92	60	304	122	103	200	65	39	44
7	31	52	60	124	58	192	114	90	120	59	36	760
8	28	82	52	149	55	139	110	81	79	60	92	604
9	30	39	46	142	51	132	139	78	74	81	60	178
10	25	37	50	94	35	192	206	78	71	52	37	55
11	28	39	47	74	62	90	134	136	65	51	40	50
12	32	54	46	70	70	103	116	110	165	56	514	55
13	33	50	47	96	68	87	96	85	112	54	856	44
14	35	47	50	60	64	101	105	72	80	42	424	304
15	34	43	47	70	62	114	234	71	55	58	55	55
16	36	45	51	66	50	85	1,450	139	51	45	45	514
17	46	47	47	58	39	78	574	87	47	39	43	424
18	49	44	43	60	59	81	544	76	304	40	43	99
19	45	47	45	60	66	62	424	74	634	55	42	53
20	38	45	574	59	78	604	248	70	116	43	37	87
21	39	44	101	59	71	349	160	64	79	37	33	64
22	38	55	60	62	64	206	142	56	76	39	35	59
23	39	49	56	58	68	192	129	155	71	44	33	52
24	38	39	64	50	51	144	116	88	70	40	39	54
25	38	37	59	55	65	142	107	187	64	37	40	52
26	36	47	87	55	144	248	103	92	55	38	52	47
27	38	49	101	56	192	234	101	72	60	38	79	49
28	35	38	139	49	112	2,530	96	76	43	39	72	47
29	50	35	99	50		364	90	206	45	105	35	290
30	45	42	92	40		124	85	424	42	54	34	192
31	45		71	40		276		139		38	33	
Month				Maximum		Minimum		Mean		Per square mile		Run-off in inches
October				71		25		37.8		0.270		0.25
November				192		35		50.4		.253		.33
December				574		43		78.9		.459		.53
January				149		40		73.9		.430		.60
February				192		35		73.5		.427		.44
March				2,530		62		343		1.95		2.29
April				1,450		85		219		1.27		1.42
May				424		56		112		.671		.75
June				634		42		108		.628		.70
July				165		37		58.8		.342		.39
August				856		33		105		.610		.70
September				760		32		149		.866		.97
The year				2,530		25		118		.666		9.27

## Little Falling River at Hat Creek, Va.

Location.- Chain gage at highway bridge 1 mile northwest of Hat Creek, Campbell County, and 1 mile above mouth.

Drainage area.- 43 square miles.

Records available.- July 1929 to September 1934.

Extremes.- Maximum discharge recorded during year, 508 second-feet Aug. 13 (gage height, 7.09 feet); minimum, 1 second-foot Oct. 7, 11 (gage height, 2.34 feet).  
1929-34: Maximum discharge recorded, 1,820 second-feet Mar. 6, 1932 (gage height, 15.12 feet); minimum, 1 second-foot several times in 1930, 1932, 1933, and 1934.

Remarks.- Records poor.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*5	2	4	68	16	36	*70	16	37	55	18	9
2	13	4	5	22	13	130	*50	15	30	40	37	*9
3	10	9	*5	21	12	466	*40	36	*25	33	21	9
4	4	19	5	44	*30	*400	*40	29	20	30	6	8
5	3	*15	7	41	11	230	*35	23	40	26	*10	9
6	2	13	6	39	17	75	*35	*25	55	*20	11	8
7	1	12	8	*50	16	71	*30	25	45	*15	14	*180
8	*2	10	9	42	16	63	*30	20	33	*15	15	*160
9	3	9	11	36	*10	60	35	18	30	20	8	*70
10	2	5	*8	35	*5	34	46	17	*25	18	7	28
11	1	4	4	32	*20	*30	30	59	18	17	7	26
12	2	*10	3	35	14	25	28	*40	59	14	*130	*20
13	2	16	8	36	16	24	26	*30	*25	12	195	*30
14	3	14	6	*20	13	22	25	21	*20	*10	25	71
15	*5	5	7	19	17	21	*70	18	*15	*20	21	59
16	13	4	8	16	*15	20	230	32	*15	*15	20	*130
17	21	3	*6	14	*10	19	80	30	*15	*10	18	59
18	3	4	9	14	*20	*20	59	22	14	*10	17	55
19	4	*5	8	13	21	45	40	32	63	21	*15	49
20	3	5	44	12	19	152	39	*25	48	*10	11	23
21	2	5	*25	*15	18	63	33	22	33	*10	10	22
22	*4	4	*20	18	21	60	*30	21	30	*10	9	21
23	5	2	*15	12	19	48	30	20	26	9	15	*15
24	4	3	*15	14	17	46	28	23	*23	8	14	15
25	5	3	*15	10	*20	*50	25	55	20	7	12	15
26	2	*5	33	9	95	56	26	*30	18	12	*15	15
27	4	4	25	8	44	173	25	*20	17	12	14	22
28	3	5	22	*10	42	195	20	39	15	17	25	12
29	*4	5	22	*15		55	*20	46	12	*25	12	45
30	4	5	21	*10		51	18	48	11	21	12	*25
31	3		*10	*5		173		51		20	9	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	21	1	4.5	0.105	0.12
November	19	2	6.9	.160	.18
December	44	3	12.8	.298	.34
January	68	5	23.6	.549	.63
February	95	5	21.0	.488	.61
March	466	19	94.0	2.19	2.52
April	230	18	45.1	1.00	1.12
May	59	15	29.3	.681	.79
June	63	11	27.9	.649	.72
July	55	7	18.1	.421	.49
August	195	6	24.3	.565	.65
September	180	8	40.3	.937	1.05
The year	466	1	28.9	.672	9.12

\*Estimated.

## Dan River near Francisco, N. C.

Location.- Water-stage recorder at county highway bridge just below Georges Mill, 3 miles east of Francisco, Stokes County, and 7.9 miles below Little Dan River.

Drainage area.- 119 square miles.

Records available.- August 1924 to September 1934.

Extremes.- Maximum discharge during year, 3,190 second-feet Sept. 29 (gage height, 5.63 feet); minimum, 23 second-feet Oct. 12 (gage height, 0.79 foot).  
1924-34: Maximum discharge (estimated), 8,700 second-feet Dec. 8, 1924 (gage height, 10.0 feet); minimum, 7.1 second-feet Sept. 8, 1932 (gage height, 0.43 foot).

Remarks.- Records good except those for June 24 to July 26, which are poor. Slight diurnal fluctuation from operation of gristmills upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	67	68	102	62	104	223	136	188	147	118	85
2	117	67	65	121	87	131	169	131	195	176	171	81
3	63	68	63	81	78	820	166	128	131	183	111	80
4	58	72	74	80	72	523	152	124	126	128	107	78
5	56	72	70	96	70	288	144	121	157	116	96	74
6	55	91	68	144	63	255	139	116	288	104	89	72
7	53	83	80	144	58	144	131	114	204	100	80	135
8	50	76	78	223	62	141	121	107	160	89	83	109
9	52	68	72	144	60	139	467	102	144	89	89	89
10	45	68	68	109	62	116	516	100	139	128	93	80
11	47	67	67	96	65	104	272	102	124	272	80	76
12	52	68	67	87	68	87	214	100	128	239	78	74
13	47	68	65	100	63	93	186	98	131	288	89	80
14	50	67	68	96	50	85	169	96	126	208	100	100
15	49	68	72	83	56	80	155	109	102	150	83	138
16	55	60	72	78	62	76	412	144	93	128	81	1,200
17	160	60	68	74	56	74	342	111	87	98	83	380
18	126	70	74	70	50	72	380	102	191	102	174	239
19	76	80	68	70	62	70	288	96	339	118	116	620
20	68	76	225	67	53	160	239	69	172	150	87	223
21	67	67	163	65	49	160	211	85	139	89	72	180
22	74	74	96	65	70	124	195	83	124	147	72	160
23	74	70	80	67	68	118	178	107	136	118	80	150
24	67	72	72	62	49	126	200	91	150	198	155	136
25	67	72	70	62	65	144	239	288	128	124	327	128
26	65	70	74	62	160	198	169	124	121	121	291	124
27	65	68	81	60	121	686	160	100	111	190	150	165
28	67	63	74	58	87	1,020	150	91	116	131	124	150
29	67	68	70	55		342	141	102	100	124	100	780
30	68	67	68	52		239	139	223	131	173	93	356
31	65		63	63		272		186		141	91	
Month				Maximum		Minimum		Mean		Per square mile		Run-off in inches
October				160		45		66.8		0.561		0.65
November				91		60		70.2		.590		.66
December				225		63		79.5		.668		.77
January				223		52		88.6		.745		.86
February				160		49		68.9		.579		.60
March				1,020		70		223		1.87		2.19
April				516		121		223		1.87		2.09
May				288		83		120		1.01		1.16
June				339		87		149		1.25		1.40
July				288		59		147		1.24		1.43
August				327		72		115		.936		1.11
September				1,200		72		211		1.77		1.98
The year.				1,200		45		131		1.10		14.90



## Dan River at Leaksville, N. C.

Location.- Water-stage recorder at covered wagon bridge at Leaksville, Rockingham County, half a mile above Smith River.

Drainage area.- 1,150 square miles.

Records available.- July 1929 to September 1934.

Extremes.- Maximum discharge during year, 14,200 second-feet Mar. 4 (gage height, 15.70 feet); minimum, 130 second-feet Jan. 31 (gage height, 0.55 foot).  
1929-34: Maximum discharge, 22,700 second-feet Oct. 18, 1932 (gage height, 24.94 feet); minimum, 84 second-feet Sept. 12, 1932 (gage height, 0.25 foot).

Remarks.- Records good. Diurnal regulation caused by operation of power plants upstream.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	216	340	365	452	286	895	3,310	775	1,210	584	895	474
2	299	345	385	584	572	835	1,890	787	1,510	865	835	405
3	410	335	385	622	567	5,440	1,440	769	1,560	955	703	365
4	375	420	405	528	474	13,900	1,240	727	1,540	616	584	365
5	294	479	415	479	457	5,730	1,210	679	4,020	805	523	340
6	294	506	420	562	435	2,490	1,110	673	7,560	709	440	740
7	273	512	479	757	390	1,580	985	667	4,090	528	420	1,770
8	256	440	501	805	395	1,280	925	644	3,260	420	462	2,000
9	252	410	446	955	395	1,140	4,550	606	1,840	567	457	835
10	290	370	420	715	308	985	10,800	589	1,340	895	435	650
11	269	375	410	594	261	895	3,300	589	1,140	1,660	435	540
12	273	340	430	528	415	835	2,030	545	955	2,760	430	420
13	256	355	385	550	474	715	1,880	545	1,210	1,140	474	1,360
14	256	395	435	567	410	679	1,310	534	955	1,180	650	895
15	244	375	410	540	380	667	1,180	712	835	775	518	1,020
16	265	365	390	501	365	628	3,090	5,710	709	611	380	8,510
17	317	360	405	479	350	572	4,240	1,810	650	540	330	10,700
18	440	360	420	435	335	528	2,700	955	628	484	345	2,400
19	512	360	440	426	365	572	2,170	775	1,160	484	681	2,130
20	395	390	638	410	405	1,510	2,100	703	1,080	540	650	2,340
21	335	400	1,180	410	375	2,970	1,640	650	739	865	430	1,210
22	312	395	745	425	355	1,470	1,340	600	606	567	317	955
23	335	410	556	415	410	1,110	1,210	622	594	865	355	865
24	350	410	452	405	420	1,080	1,110	616	955	606	835	805
25	350	385	435	405	420	1,470	1,080	2,270	835	769	2,480	733
26	322	395	435	395	1,430	2,400	1,080	1,970	661	594	2,560	679
27	326	390	534	375	2,720	2,030	955	955	540	1,970	1,970	721
28	317	400	528	370	1,310	10,200	895	739	484	1,280	865	985
29	326	380	474	380		4,710	805	810	484	895	611	3,600
30	335	380	420	350		2,170	835	2,240	484	1,110	534	3,290
31	370		395	200		2,770		1,750		1,210	594	
Month	Maximum					Minimum		Mean		Per square mile		Run-off in inches
October	512					216		318		0.277		0.32
November	512					335		392		.541		.58
December	1,180					365		475		.413		.48
January	955					200		503		.437		.50
February	2,720					261		553		.481		.50
March	13,900					528		2,400		2.09		2.41
April	10,800					805		2,070		1.80		2.01
May	5,710					534		1,060		.922		1.06
June	7,580					484		1,450		1.27		1.42
July	2,760					420		896		.781		.90
August	2,560					317		715		.623		.72
September	10,700					340		1,740		1.51		1.68
The year	13,900					200		1,050		.913		12.39

## Dan River at South Boston, Va.

Location.- Water-stage recorder at Norfolk & Western Railway bridge at South Boston, Halifax County, 6 miles above Banister River. Zero of gage is 300.07 feet above mean sea level.

Drainage area.- 2,730 square miles.

Records available.- August 1900 to May 1907, April 1923 to September 1934.

Average discharge.- 16 years (1900-1902, 1903-6, 1923-34), 2,790 second-feet.

Extremes.- Maximum discharge during year, 26,500 second-feet Mar. 6 (gage height, 23.49 feet); minimum, 280 second-feet Oct. 1 (gage height, 3.67 feet); minimum daily discharge, 324 second-feet Oct. 1.

1900-1907, 1923-34: Maximum discharge recorded, 52,600 second-feet Dec. 31, 1901 (gage height, 25.2 feet, old datum); minimum, 161 second-feet Sept. 20, 1932 (gage height, 3.11 feet); minimum daily discharge, 208 second-feet Sept. 15, 1932.

Remarks.- Records good except those estimated for Oct. 25 to Nov. 2, Feb. 10, 11, July 22, 24, 27, Aug. 5-11, which are fair. Water supply for South Boston diverted just above gage. Dams and mills at Danville regulate low-water flow to some extent.

## Discharge, in second-feet, 1935-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	324	560	592	760	680	4,440	7,370	1,670	7,410	1,060	2,180	996
2	410	600	710	989	798	2,520	6,660	1,740	4,300	2,170	1,780	1,010
3	461	562	650	1,070	1,080	4,860	4,200	1,560	3,680	2,330	1,600	922
4	448	562	681	1,060	1,060	18,800	3,180	1,740	4,160	2,070	1,260	709
5	597	546	848	1,050	1,060	24,700	2,940	1,560	4,680	1,600	1,150	836
6	588	856	716	1,060	1,020	23,100	2,760	1,500	9,390	1,930	1,000	2,040
7	495	1,030	798	974	908	7,160	2,560	1,300	16,700	1,650	1,100	7,900
8	368	990	874	1,420	894	3,900	2,020	1,220	10,200	1,360	3,600	17,600
9	464	867	858	1,760	824	3,200	9,560	1,250	9,390	1,790	2,700	8,670
10	434	650	793	1,780	760	2,780	21,300	1,800	5,080	1,320	1,600	3,380
11	404	636	736	1,400	680	2,540	23,800	1,170	3,260	1,560	1,400	1,700
12	440	685	834	1,150	753	1,870	11,900	1,280	2,940	3,270	945	1,320
13	446	614	762	1,140	705	1,800	4,560	1,170	2,480	4,290	1,460	1,370
14	450	768	746	964	944	1,820	3,320	1,050	2,300	2,220	1,500	2,410
15	342	756	686	1,040	833	1,590	2,910	1,260	2,290	3,480	928	2,270
16	416	723	724	1,180	850	1,510	3,780	5,830	1,740	1,980	1,000	10,900
17	454	633	647	1,010	798	1,560	10,300	10,900	1,450	1,280	892	20,100
18	498	651	654	972	788	1,310	8,480	4,690	1,410	1,200	795	23,500
19	554	608	858	881	678	1,190	6,090	2,330	1,560	1,040	828	9,490
20	909	633	980	863	878	2,670	4,820	1,550	1,790	970	702	5,140
21	728	722	1,320	780	925	6,880	4,280	1,460	2,530	1,070	1,260	4,360
22	494	765	2,090	758	854	6,950	3,670	1,110	1,720	1,100	799	2,620
23	528	780	1,610	935	912	3,780	2,600	1,330	1,340	1,410	688	1,610
24	649	709	1,050	916	876	2,940	2,670	1,530	1,460	1,200	589	1,560
25	580	721	980	820	965	3,520	2,350	5,400	1,600	1,220	1,610	1,560
26	600	634	694	820	2,320	5,670	2,330	9,680	1,600	1,620	5,180	1,590
27	560	708	1,060	832	6,010	6,740	2,180	4,980	1,340	2,780	6,060	1,240
28	560	766	1,050	728	7,220	16,100	1,960	2,140	1,210	3,800	3,880	1,620
29	620	707	1,010	702		20,200	1,690	2,030	1,070	2,860	1,910	2,080
30	580	710	950	796		12,800	1,700	4,060	998	2,480	1,360	6,320
31	660		745	696		5,580		7,620		2,740	1,070	
Month	Maximum					Minimum	Mean	Per square mile		Run-off in inches		
October	909					324	518	C.190		0.22		
November	1,030					546	706	.250		.29		
December	2,090					592	894	.327		.38		
January	1,780					696	1,010	.370		.43		
February	7,220					678	1,324	.485		.50		
March	24,700					1,190	6,564	2.40		2.77		
April	23,800					1,690	5,598	2.05		2.29		
May	10,900					1,050	2,810	1.03		1.19		
June	16,700					998	3,669	1.34		1.50		
July	4,290					970	1,952	.715		.82		
August	6,060					589	1,717	.629		.73		
September	23,500					709	4,891	1.79		2.00		
The year	24,700					324	2,637	.966		13.12		

## Mayo River near Price, N. C.

Location.- Water-stage recorder just below Anglins Bridge, three-quarters of a mile below State line, and 4 miles west of Price, Rockingham County.

Drainage area.- 260 square miles.

Records available.- July 1929 to September 1934.

Extremes.- Maximum discharge during year, 5,550 second-feet Mar. 4 (gage height, 6.35 feet); minimum, 64 second-feet Jan. 30 (gage height, 0.75 foot).  
1929-34: Maximum discharge (estimated), 15,900 second-feet Oct. 2, 1929 (gage height, 10.2 feet); minimum, 41 second-feet Sept. 19, 1932 (gage height, 0.52 foot).

Remarks.- Records good except those above 2,000 second-feet, which are poor.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	120	128	148	150	207	455	200	380	220	141	110
2	160	122	122	183	180	178	345	197	394	313	158	97
3	122	124	124	150	150	2,040	297	194	200	163	150	101
4	116	141	128	139	135	2,630	272	192	224	155	141	99
5	114	148	133	155	130	674	264	186	813	144	130	92
6	110	178	126	224	124	400	257	183	1,220	141	120	90
7	102	153	148	207	124	297	249	178	458	133	118	277
8	102	139	133	276	122	272	242	170	502	126	120	203
9	106	128	135	207	118	249	1,250	165	306	263	141	137
10	102	130	120	172	104	220	1,480	162	268	227	126	122
11	99	120	126	160	160	203	582	160	245	1,127	120	110
12	101	133	122	153	141	163	420	155	317	523	138	102
13	102	126	130	172	124	179	354	155	268	416	124	133
14	102	133	124	160	118	175	323	153	203	263	120	214
15	106	120	122	146	114	158	293	200	186	217	114	195
16	108	120	126	144	116	150	954	376	175	183	101	3,510
17	167	128	122	139	116	146	699	194	167	177	101	996
18	183	126	133	135	104	141	747	172	282	197	151	482
19	130	124	126	135	130	137	499	160	492	177	175	1,180
20	120	128	346	133	114	606	435	153	234	167	122	450
21	122	130	231	126	122	430	301	144	197	143	110	336
22	122	126	165	128	130	272	306	144	175	173	97	285
23	122	133	144	133	137	245	276	148	368	153	112	249
24	118	124	135	122	124	253	264	148	335	153	152	227
25	120	130	128	128	126	336	280	777	203	150	271	207
26	114	126	144	124	264	499	238	245	175	143	210	200
27	120	126	158	128	280	578	227	183	160	553	155	200
28	122	120	141	120	165	2,110	220	167	155	163	130	224
29	116	128	135	122		632	210	190	148	155	120	1,410
30	122	118	122	90		420	207	400	167	167	114	565
31	122		144	165		510		272		173	116	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	183	99	119	0.458	0.53
November	178	118	130	.500	.56
December	346	120	143	.550	.63
January	276	90	152	.585	.67
February	280	104	140	.538	.56
March	2,630	137	501	1.93	2.23
April	1,480	207	432	1.66	1.85
May	777	144	210	.808	.93
June	1,220	148	316	1.21	1.35
July	1,120	126	242	.931	1.07
August	271	97	135	.619	.60
September	3,510	90	420	1.62	1.81
The year	3,510	90	245	.942	12.79

## North Mayo River near Spencer, Va.

Location.- Chain gage at highway bridge at Moores Mill, 4 miles southeast of Spencer, Henry County. Zero of gage is 732.44 feet above mean sea level.

Drainage area.- 108 square miles.

Records available.- October 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 870 second-feet Sept. 16 (gage height, 4.82 feet); minimum, 31 second-feet Aug. 22 (gage height, 2.32 feet)..  
1928-34: Maximum stage recorded, 10.52 feet Oct. 17, 1932 (discharge not determined); minimum discharge, 19 second-feet Sept. 2-5, 1930 (gage height, 2.12 feet).

Remarks.- Records fair. Discharge estimated Oct. 17-19, Nov. 7-11, Dec. 19, 20, Jan. 11-13, Jan. 30 to Feb. 1, Mar. 20-23, 30, Apr. 17-21, Sept. 30.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	42	42	102	70	149	114	92	127	104	86	42
2	92	39	40	96	96	335	106	92	116	130	75	42
3	84	37	68	92	92	532	102	92	116	112	68	40
4	71	37	88	88	92	700	96	92	154	99	59	42
5	64	130	79	84	92	344	92	92	236	88	54	39
6	54	116	75	84	88	253	92	92	288	77	50	39
7	50	70	71	92	94	204	92	92	138	71	46	66
8	50	60	60	122	92	171	96	92	135	81	42	84
9	49	50	60	116	92	143	270	86	132	163	42	62
10	48	50	68	106	92	127	160	90	124	116	42	48
11	48	50	60	100	90	116	116	86	112	465	42	44
12	46	64	64	90	92	112	106	86	102	160	48	39
13	49	62	60	80	94	109	96	88	92	119	62	39
14	44	60	64	96	92	106	96	94	92	109	39	40
15	42	60	60	96	102	106	94	130	92	106	37	106
16	44	60	60	90	109	112	160	325	92	102	34	870
17	60	64	60	90	92	112	350	160	92	88	34	465
18	90	54	57	92	92	130	180	114	114	77	37	122
19	50	50	100	92	92	143	150	104	124	68	49	270
20	40	50	160	92	88	200	120	92	96	62	48	106
21	42	48	94	94	88	170	110	102	92	64	37	81
22	40	48	90	88	88	150	94	146	94	116	32	71
23	39	48	94	88	88	110	96	253	130	92	37	68
24	39	44	94	88	88	92	96	160	116	92	71	92
25	39	44	96	88	96	116	92	116	106	90	119	84
26	40	50	92	92	116	106	92	96	92	201	94	69
27	42	48	92	92	116	119	92	96	88	168	49	64
28	39	49	92	88	130	325	92	112	79	143	46	166
29	38	44	88	88		325	92	138	71	130	44	96
30	39	39	90	80		220	92	141	88	112	44	80
31	39		94	70		130		116		92	42	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October . . . . .				119	38	52.6	0.487		0.56			
November . . . . .				130	37	55.2	.511		.57			
December . . . . .				160	40	77.8	.720		.83			
January . . . . .				122	70	92.1	.853		.98			
February . . . . .				130	70	94.8	.878		.91			
March . . . . .				700	92	197	1.62		2.10			
April . . . . .				350	92	121	1.12		1.26			
May . . . . .				325	86	118	1.03		1.26			
June . . . . .				288	71	118	1.09		1.22			
July . . . . .				465	62	119	1.10		1.27			
August . . . . .				119	32	51.9	.481		.55			
September . . . . .				870	39	116	1.07		1.19			
The year.				870	32	101	.935		12.69			

## Smith River at Martinsville, Va.

Location.- Water-stage recorder 2 miles south of Martinsville, Henry County, and 3 miles below Grassy Creek. Zero of gage is 656.86 feet above mean sea level.

Drainage area.- 374 square miles.

Records available.- August 1929 to September 1934.

Extremes.- Maximum discharge during year, 9,620 second-feet Sept. 16 (gage height, 6.70 feet); minimum, 5 second-feet May 20 (gage height, 1.20 feet); minimum daily discharge, 22 second-feet June 24.

1929-34: Maximum stage, 17.50 feet Oct. 17, 1932 (discharge not determined); minimum discharge, that of May 20, 1934; minimum daily discharge, that of June 24, 1934.

Remarks.- Records good. Flow regulated by dam and power plant 1,000 feet upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	147	175	222	120	178	574	309	312	235	168	130
2	108	148	152	190	159	295	434	335	237	386	358	52
3	163	170	176	184	192	2,110	352	242	211	329	197	114
4	136	197	153	173	182	2,040	354	240	326	116	146	116
5	138	232	158	197	161	709	355	142	318	136	116	116
6	138	273	162	242	158	489	284	132	410	136	160	114
7	138	217	174	304	182	376	236	242	342	60	138	173
8	72	193	182	434	148	360	255	258	751	132	126	176
9	154	145	162	354	151	385	748	228	354	170	154	134
10	124	160	164	255	128	284	1,270	184	261	147	132	132
11	119	154	162	218	33	207	634	237	306	687	130	133
12	122	167	152	212	200	357	434	190	298	397	46	138
13	122	165	136	168	175	225	375	158	282	402	184	266
14	132	156	145	194	176	232	345	270	266	276	136	288
15	106	168	154	253	154	230	298	232	187	186	136	270
16	142	160	140	188	159	202	1,250	284	146	258	138	4,820
17	218	155	128	178	132	145	358	272	45	156	144	950
18	324	146	186	180	94	134	1,040	258	416	150	138	476
19	138	130	166	168	180	227	641	174	720	128	102	436
20	144	202	540	157	152	684	520	85	356	179	160	236
21	152	156	424	120	146	527	432	216	240	148	138	294
22	120	166	192	221	146	400	365	178	242	171	133	192
23	172	166	180	164	188	362	340	177	198	270	116	170
24	146	175	166	176	146	246	550	176	22	300	136	258
25	158	154	178	148	132	276	376	264	190	184	329	160
26	139	130	204	171	286	510	297	200	156	310	406	177
27	134	190	226	150	276	1,050	302	152	150	342	245	180
28	150	152	206	124	198	2,940	199	238	156	216	161	101
29	129	154	184	196		757	249	190	142	170	140	724
30	174	136	171	156		504	353	404	138	221	132	414
31	150		150	119		790		386		173	130	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October . . . . .	324	72	146	0.390	0.45
November . . . . .	273	130	170	.455	.51
December . . . . .	540	128	188	.503	.58
January . . . . .	434	119	200	.535	.62
February . . . . .	236	33	165	.441	.46
March . . . . .	2,940	134	588	1.57	1.81
April . . . . .	1,270	199	484	1.29	1.44
May . . . . .	404	85	227	.607	.70
June . . . . .	751	22	272	.727	.81
July . . . . .	697	60	231	.618	.71
August . . . . .	406	46	163	.436	.50
September . . . . .	4,820	52	398	1.06	1.18
The year . . . . .	4,520	22	269	.719	0.77

## Leatherwood Creek near Old Liberty, Va.

Location.- Chain gage at highway bridge  $1\frac{1}{2}$  miles above mouth and 3 miles from Old Liberty, Henry County. Zero of gage is 627.95 feet above mean sea level.

Drainage area.- 68 square miles.

Records available.- September 1925 to June 1934 (discontinued).

Extremes.- Maximum daily discharge during period (estimated), 1,000 second-feet Mar. 4; minimum discharge, 7 second-feet Oct. 9 (gage height, 1.55 feet).

1925-34: Maximum discharge recorded, 2,970 second-feet Aug. 11, 1928 (gage height, 14.37 feet); minimum, 1 second-foot numerous days in September 1932.

Remarks.- Records poor. Stage-discharge relation affected by ice Nov. 17, Dec. 30, Jan. 31, Feb. 10, 14, 20, 21, Feb. 26 to Mar. 1.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*10	17	16	*20	35	40	*90	35	40			
2	15	17	16	23	62	50	60	35	57			
3	15	17	*18	19	50	263	50	36	*50			
4	8	40	19	20	*35	*1,000	46	35	48			
5	8	*35	16	23	31	279	45	30	52			
6	8	50	14	28	26	114	41	*30	202			
7	8	17	25	*30	23	69	36	30	77			
8	*8	15	19	41	26	64	*35	29	892			
9	7	14	18	29	19	62	100	27	135			
10	9	14	*17	24	15	57	217	28	*60			
11	9	13	16	22	*25	*46	107	36	46			
12	12	*14	16	21	42	35	64	29	49			
13	9	15	17	29	23	39	61	*28	49			
14	8	16	17	*25	20	36	47	26	36			
15	*10	15	17	21	20	33	*45	31	32			
16	11	11	17	21	23	33	279	157	27			
17	18	10	*17	20	19	33	150	44	*26			
18	12	17	17	20	*20	*33	157	35	25			
19	10	*16	20	19	25	33	83	33	36			
20	11	16	128	19	20	311	64	*30	25			
21	10	16	35	*19	15	150	56	28	22			
22	*11	17	23	19	*25	74	*52	27	20			
23	12	17	20	19	35	49	48	36	20			
24	12	16	*18	18	26	46	46	29	*30			
25	13	17	*17	18	*20	*90	40	157	19			
26	12	*16	25	19	80	135	39	44	15			
27	13	14	23	17	50	107	40	*40	15			
28	14	17	22	*16	30	477	39	38	19			
29	*14	16	17	16		135	*37	36	17			
30	15	*16	10	10		79	36	*150	17			
31	15		*15	20		128		56				
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				18	7	11.2	0.165		0.19			
November				50	10	19.0	.265		.30			
December				128	10	22.1	.375		.37			
January				41	10	21.5	.316		.36			
February				80	15	30.0	.441		.46			
March				1,000	33	132	1.94		2.24			
April				279	35	73.3	1.08		1.20			
May				157	26	45.3	.666		.77			
June				892	15	72.9	1.07		1.19			
July												
August												
September												
The year												

\*Estimated.

## Sandy River near Danville, Va.

Location.- Water-stage recorder 500 feet below highway bridge on road between Callahans Store and Mount Cross and 6 miles northwest of Danville, Pittsylvania County. Zero of gage is 454.89 feet above mean sea level.

Drainage area.- 115 square miles.

Records available.- November 1929 to September 1934.

Extremes.- Maximum discharge during year, about 5,500 second-feet Sept. 7 (gage height, 11.60 feet); minimum, 14 second-feet Oct. 2 (gage height, 0.59 foot).  
1929-34: Maximum discharge, that of Sept. 7, 1934; minimum, 3 second-feet Sept. 29, 1930 (gage height, 0.40 foot).  
Previous maximum discharge, 3,970 second-feet (revised) Aug. 22, 1931 (gage height, 9.45 feet).

Remarks.- Records good except those for high stages, those estimated Apr. 24-26, Apr. 28 to May 11, May 13-16, 18, 20-24, 26-28, June 10-14, 16-20, Aug. 8-10, and those for periods of ice effect, Nov. 16, 17, Dec. 30, 31, Jan. 29-31, Feb. 7, 9-11, 14, 18, 20, 21, Feb. 24 to Mar. 1, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	31	34	30	38	50	94	65	83	204	90	34
2	20	31	32	34	51	75	80	60	86	160	49	31
3	26	31	31	30	38	801	72	60	86	60	32	46
4	22	47	32	28	36	1,470	70	60	94	49	31	38
5	22	38	31	30	34	344	68	55	256	60	30	32
6	21	55	31	31	32	173	62	55	178	40	30	107
7	20	32	41	34	30	106	60	55	118	40	78	1,630
8	20	29	38	47	36	97	62	55	317	42	40	142
9	21	29	32	36	35	97	292	50	144	42	30	69
10	22	29	32	32	30	92	216	50	100	32	30	50
11	21	27	34	31	35	92	144	60	80	36	45	45
12	22	29	32	30	42	81	111	51	90	38	36	45
13	20	31	31	34	40	79	94	60	100	33	26	50
14	22	34	31	34	35	68	66	50	80	61	25	67
15	22	32	29	34	36	68	78	60	70	62	24	675
16	22	25	29	32	36	65	331	200	60	34	28	2,140
17	38	25	29	32	34	65	151	72	55	31	31	619
18	31	34	31	32	35	63	148	60	50	31	52	210
19	22	31	36	31	42	65	114	55	500	31	94	222
20	22	32	86	31	35	280	121	50	160	31	36	116
21	22	31	60	30	25	190	100	50	49	31	30	86
22	22	31	42	31	40	124	91	50	47	79	28	81
23	23	32	32	31	47	109	83	60	82	34	30	75
24	25	32	30	32	40	103	80	50	53	30	71	69
25	26	32	30	31	35	141	80	791	44	85	117	62
26	26	31	38	31	100	168	75	200	40	88	250	55
27	27	34	42	32	70	804	80	100	40	36	94	50
28	27	32	32	32	40	608	75	90	42	30	49	50
29	27	32	32	30	163	70	83	42	42	32	40	280
30	29	32	25	20	134	65	155	47	61	38	81	
31	29	25	25	25	134		137		40	36		
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					38	16	23.7	0.210		0.24		
November					55	25	32.4	.287		.32		
December					86	25	35.2	.312		.36		
January					47	20	31.5	.279		.32		
February					100	25	40.2	.356		.37		
March					1,470	50	223	1.97		2.27		
April					331	60	108	.956		1.07		
May					791		98.0	.867		1.00		
June					500	40	106	.938		1.05		
July					204	30	53.8	.476		.55		
August					250	24	52.3	.463		.53		
September					2,140	31	242	2.14		2.39		
The year.					2,140	16	87.2	.772		10.47		

## Banister River at Halifax, Va.

Location.- Water-stage recorder 1 mile north of Halifax, Halifax County, and 10 miles above mouth. Zero of gage is 318.54 feet above mean sea level.

Drainage area.- 552 square miles.

Records available.- December 1928 to September 1934.

Extremes.- Maximum discharge during year, 5,650 second-feet Mar. 5 (gage height, 19.60 feet); minimum, 10 second-feet Feb. 10 (gage height, 0.33 foot); minimum daily discharge, 15 second-feet Oct. 5, 15, Nov. 21, Dec. 10, July 24.  
1928-34: Maximum discharge, 7,510 second-feet Oct. 3, 1929 (gage height, 24.02 feet); minimum, 6 second-feet numerous days in August and September 1932; minimum daily discharge, 6 second-feet Aug. 30, 1932.

Remarks.- Records good except those estimated Nov. 17 to Dec. 21, Sept. 22-28, which are fair. Flow regulated except for high stages by power plant half a mile upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	107	200	234	226	207	997	296	536	278	216	28
2	40	98	130	166	212	429	776	292	469	351	340	20
3	78	116	120	219	271	894	791	316	66	206	22	232
4	106	101	180	142	108	4,240	604	392	276	128	235	229
5	15	202	120	234	243	5,480	663	262	568	686	28	422
6	128	165	220	284	94	3,730	750	60	639	732	71	478
7	68	73	130	166	238	1,290	520	236	317	325	263	964
8	54	212	120	278	116	838	143	214	346	289	323	3,130
9	49	74	270	240	140	700	940	213	427	112	24	3,300
10	46	124	15	212	94	670	3,160	85	130	64	210	764
11	47	124	210	154	70	560	2,280	263	332	72	22	326
12	104	73	80	172	180	562	1,060	263	282	20	277	293
13	63	168	160	250	166	585	654	216	464	213	374	3,130
14	81	145	170	166	185	264	833	202	200	172	129	1,090
15	15	96	120	162	140	300	439	294	253	251	197	768
16	151	106	130	146	197	250	652	474	232	155	20	1,240
17	50	140	120	230	102	274	1,810	392	54	86	139	3,470
18	117	120	190	122	108	70	1,630	358	418	75	55	2,760
19	134	80	160	149	218	519	967	242	676	108	64	877
20	65	220	340	162	176	740	718	22	596	80	276	778
21	110	15	320	126	84	1,280	456	216	64	213	156	556
22	71	220	270	194	212	1,030	378	231	223	71	80	250
23	80	100	214	151	200	863	642	216	220	34	40	300
24	66	140	108	158	182	835	835	204	26	15	124	500
25	90	190	154	156	94	828	534	852	114	102	65	300
26	106	120	212	154	266	742	286	930	225	79	483	30
27	92	130	176	139	276	879	251	488	190	196	658	350
28	118	120	248	128	569	2,030	261	254	72	87	318	900
29	51	140	139	138		4,410	58	379	112	124	222	795
30	120	120	114	64		1,810	256	908	192	299	26	831
31	91		164	98		989		768		60	220	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	151	15	79.4	0.144	0.17
November	220	15	128	.232	.26
December	340	15	171	.310	.36
January	284	64	176	.319	.37
February	569	70	185	.335	.35
March	5,480	70	1,242	2.25	2.59
April	3,160	58	819	1.48	1.55
May	930	22	337	.611	.70
June	676	26	291	.527	.59
July	732	15	180	.326	.38
August	658	20	184	.333	.38
September	3,470	20	970	1.76	1.96
The year	5,480	15	397	.719	9.76



## Hyco River near Denniston, Va.

Location.- Chain gage at highway bridge 2 miles east of Denniston, Halifax County, and 8 miles south of South Boston. Zero of gage is 315.24 feet above near sea level.

Drainage area.- 219 square miles.

Records available.- July 1929 to March 1934 (discontinued).

Extremes.- Maximum discharge recorded during period, 3,420 second-feet Mar. 2 (gage height, 19.18 feet); minimum, 1.0 second-foot Oct. 11 (gage height, 4.18 feet). 1929-34: Maximum discharge recorded, that of Mar. 2, 1934; minimum, 0.004 second-foot Sept. 14, 1932 (gage height, 3.58 feet) from discharge measurement.

Remarks.- Records fair. Discharge estimated for Dec. 8, Jan. 23 to Feb. 1, Feb. 11-13, 18-20, 25-28, Mar. 4-6, 11, 12, and for period of ice effect, Dec. 30, 31.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	4.8	29	28	50	3,260						
2	2.8	4.8	24	35	40	3,190						
3	2.8	12	22	34	70	3,070						
4	2.7	11	29	37	252	900						
5	2.1	16	24	38	88	700						
6	2.0	19	24	38	43	450						
7	1.7	14	29	38	35	228						
8	2.4	20	28	36	34	156						
9	1.7	18	25	36	34	102						
10	1.8	16	22	31	35	38						
11	1.2	18	25	35	25	240						
12	1.6	15	25	38	50	180						
13	1.7	18	18	31	70	97						
14	2.0	17	25	29	34	48						
15	2.1	19	28	33	37							
16	1.7	20	17	40	38							
17	1.9	17	25	48	44							
18	4.6	16	16	35	40							
19	5.4	18	33	40	90							
20	2.8	18	35	70	70							
21	3.4	19	26	33	62							
22	4.0	16	31	36	44							
23	4.6	18	37	35	44							
24	5.4	18	31	30	39							
25	4.2	17	33	30	30							
26	5.2	22	76	30	100							
27	8.2	17	37	25	100							
28	10	18	33	25	70							
29	9.3	17	32	25								
30	6.8	16	25	20								
31	4.8		20	20								
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				10	1.2	3.67	0.017		0.02			
November				22	4.6	16.4	.075		.08			
December				76	16	28.6	.131		.15			
January				70	20	34.2	.156		.18			
February				252	25	59.6	.272		.28			
March 1-14				3,260	38	904	4.13		2.15			
April												
May												
June												
July												
August												
September												
The year												

## Hyco River near Omega, Va.

Location.- Water-stage recorder at highway bridge  $1\frac{1}{2}$  miles above Hilly Creek,  $2\frac{1}{2}$  miles south of Omega, Halifax County, and 7 miles above mouth.

Drainage area.- 338 square miles.

Records available.- March to September 1934.

Extremes.- Maximum discharge during period, 4,800 second-feet Sept. 8 (gage height, 27.50 feet); minimum, 10 second-feet July 27 (gage height, 1.67 feet).

Remarks.- Records good.

## Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.	Sept.
1							1,180	101	2,450	114	312	64
2							678	100	1,680	98	368	49
3							497	102	902	277	239	41
4							368	107	410	467	89	38
5							368	99	438	205	82	39
6							305	88	822	95	40	302
7							284	76	1,250	68	364	2,500
8							238	67	1,750	56	774	4,690
9							1,650	62	1,640	48	710	4,140
10							3,330	57	774	52	557	3,770
11							3,440	54	382	52	179	3,060
12							3,330	52	250	52	87	1,060
13							2,680	50	198	48	64	333
14							788	44	160	42	262	678
15						160	354	150	126	44	120	774
16						166	662	1,010	102	34	92	1,480
17						160	1,080	1,130	89	61	69	1,860
18						141	870	902	166	44	45	2,310
19						116	632	291	527	34	40	2,510
20						1,010	452	166	467	30	43	1,360
21						1,280	354	118	231	52	43	396
22						966	284	93	113	53	32	305
23						572	231	99	86	31	50	257
24						368	198	154	200	28	53	205
25						806	192	1,050	238	22	600	172
26						1,150	179	1,130	137	17	1,220	152
27						1,170	153	982	86	12	790	135
28						1,820	134	602	74	73	438	438
29						1,770	122	382	66	477	231	368
30						1,550	106	806	92	572	116	340
31						1,600		1,730		557	78	
Month						Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October . . . . .												
November . . . . .												
December . . . . .												
January . . . . .												
February . . . . .												
March 15-31 . . . . .						1,820	116	871	2.58		1.63	
April . . . . .						3,440	106	837	2.48		2.77	
May . . . . .						1,730	44	382	1.13		1.30	
June . . . . .						2,450	66	530	1.57		1.75	
July . . . . .						572	12	124	.367		.42	
August . . . . .						1,220	32	264	.781		.90	
September . . . . .						4,690	38	1,127	3.33		3.72	
The year. . . . .												

## Tar River near Nashville, N. C.

Location.— Chain gage at Cockrell Bridge, on Nashville-Wilson road, 5 miles above Saponey Creek and 10 miles south of Nashville, Nash County.

Drainage area.— 593 square miles.

Records available.— October 1928 to September 1934.

Extremes.— Maximum discharge recorded during year, 9,480 second-feet Apr. 13 (gage height, 15.82 feet); minimum recorded, 13 second-feet Oct. 18 (gage height, 1.60 feet).  
1928-34: Maximum discharge recorded, 11,100 second-feet (revised) Oct. 6, 1929 (gage height, 16.98 feet); minimum recorded, 10 second-feet Sept. 20, 1932 (gage height, 1.50 feet).

Remarks.— Records good except those estimated Sept. 19-30, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	53	81	89	99	2,100	1,320	308	1,280	206	875	386
2	30	63	89	130	120	830	1,500	308	1,420	427	406	290
3	36	54	77	160	327	605	965	346	695	1,690	272	406
4	35	43	77	130	308	536	740	346	492	1,850	238	386
5	36	43	85	99	206	1,550	695	346	492	695	238	327
6	27	108	77	125	181	2,330	1,060	290	875	386	194	290
7	23	130	85	123	163	2,000	920	290	1,600	272	166	346
8	28	106	83	113	136	740	695	255	1,700	206	141	470
9	20	77	93	115	136	582	1,600	222	1,650	178	172	965
10	18	83	113	106	111	515	3,720	206	695	238	1,570	830
11	20	74	106	91	111	605	4,980	206	515	166	2,150	605
12	22	74	111	104	120	650	6,800	194	448	172	740	346
13	25	60	115	120	138	650	9,220	181	538	160	366	1,340
14	25	63	85	115	272	695	7,840	175	560	146	366	1,600
15	20	65	106	116	222	695	1,170	187	427	138	308	1,100
16	25	79	77	104	175	830	920	327	308	130	175	1,700
17	17	74	89	102	163	920	1,280	1,750	238	95	178	1,600
18	17	87	93	93	152	740	2,150	2,150	386	172	146	2,610
19	30	91	113	87	136	582	2,270	920	965	123	146	1,700
20	33	85	106	93	194	650	2,000	515	1,600	95	143	1,100
21	35	79	106	102	255	1,240	1,140	366	965	327	130	750
22	37	72	108	106	238	2,000	875	272	448	1,010	200	600
23	33	72	130	102	206	1,280	695	272	290	1,010	920	500
24	28	67	106	163	222	785	605	366	538	492	695	440
25	31	111	81	178	222	650	538	308	650	406	538	500
26	35	79	83	146	546	965	470	308	492	238	3,260	400
27	31	77	81	125	1,850	1,370	427	695	290	181	3,860	400
28	35	93	85	125	2,570	1,600	406	492	222	272	2,150	360
29	49	75	83	108		2,330	366	386	206	222	2,390	440
30	34	85	62	106		3,170	346	605	190	1,420	1,320	600
31	30		75	91		3,530		1,060		1,650	695	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	49	17	28.8	0.049	0.06
November	130	43	78.1	.132	.15
December	130	62	92.3	.156	.18
January	178	87	115	.194	.22
February	2,570	99	342	.577	.60
March	2,530	515	1,210	2.04	2.33
April	9,220	346	1,920	3.24	3.62
May	2,150	175	473	.798	.92
June	1,700	190	702	1.18	1.32
July	1,850	95	477	.804	.93
August	3,860	130	811	1.37	1.68
September	2,610	290	786	1.33	1.48
The year.	9,220	17	586	.998	13.39

## Tar River at Tarboro, N. C.

Location.- Water-stage recorder at highway bridge at Tarboro, Edgecombe County.

Drainage area.- 2,100 square miles.

Records available.- July 1896 to December 1900, October 1931 to September 1934.

Extremes.- Maximum discharge during year, 15,900 second-feet Apr. 16 (gage height, 22.07 feet); minimum, 36 second-feet Oct. 17, 22 (gage height, 0.45 foot).  
1896-1900, 1931-34: Maximum discharge, 19,800 second-feet Feb. 11, 1899 (gage height, 25.0 feet, old datum); minimum, that of Oct. 17, 22, 1933.  
Maximum stage known, 34.2 feet (present datum) July 27, 1919 (discharge, estimated, 32,000 second-feet).

Remarks.- Records good.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	63	168	168	248	3,270	8,120	1,340	2,470	610	2,770	7,460
2	71	78	109	165	330	3,530	8,100	1,200	2,720	662	2,940	3,380
3	58	52	153	234	279	2,280	7,120	1,240	2,680	1,250	2,620	2,100
4	69	65	155	231	279	1,630	6,150	1,290	2,120	3,110	2,200	3,280
5	58	78	116	289	470	1,500	4,910	1,290	2,100	3,870	1,600	3,280
6	47	56	176	297	540	2,310	3,660	1,240	1,800	3,000	1,300	2,840
7	47	64	162	297	437	3,600	3,280	1,200	1,850	1,720	920	2,500
8	137	100	159	274	391	3,760	3,090	1,040	2,550	1,160	662	2,890
9	65	133	166	248	376	2,530	2,850	960	3,220	1,000	505	2,720
10	45	166	155	254	319	1,850	4,270	880	2,940	760	470	2,560
11	39	116	190	241	319	1,700	6,510	840	2,140	628	1,200	2,350
12	38	127	201	258	274	1,700	8,380	780	1,600	540	3,570	1,750
13	64	118	222	212	350	1,950	10,300	700	1,420	437	3,220	1,960
14	65	102	217	229	376	2,000	12,600	610	1,960	470	2,150	3,270
15	44	116	215	234	505	2,100	14,700	628	2,450	575	1,600	4,370
16	37	127	210	236	558	2,300	15,600	662	2,180	780	1,160	4,800
17	36	90	234	254	470	2,450	13,000	1,140	1,700	628	880	5,430
18	64	102	190	264	422	2,560	9,460	2,700	1,470	454	610	6,480
19	62	131	174	269	376	2,350	6,660	3,680	2,020	406	522	7,200
20	44	118	215	227	505	2,150	6,430	2,860	3,060	454	422	7,460
21	38	123	212	234	488	2,400	6,810	1,740	3,450	470	373	6,290
22	42	166	219	222	488	3,130	6,260	1,340	2,820	422	362	4,380
23	47	145	206	212	592	4,120	5,150	1,080	1,900	1,280	391	3,220
24	37	145	254	248	575	4,170	4,000	1,120	1,290	2,510	1,030	2,560
25	57	145	241	241	488	3,290	3,100	1,000	1,160	2,060	1,600	2,800
26	69	151	227	308	628	2,890	2,550	1,040	1,290	1,340	3,000	2,000
27	46	147	196	355	790	3,110	2,150	980	1,200	985	6,160	1,750
28	39	107	208	316	2,040	4,140	1,850	1,120	860	700	8,750	1,470
29	66	172	166	276		6,340	1,560	1,530	760	610	11,100	1,160
30	75	153	199	251		6,140	1,470	1,600	592	720	11,600	1,160
31	48		208	266		7,130		1,820		1,240	10,600	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					137	36	56.7	C.027		0.03		
November					172	52	115	.055		.06		
December					254	109	191	.091		.10		
January					353	168	253	.120		.14		
February					2,040	248	497	.237		.25		
March					7,130	1,500	3,010	1.43		1.65		
April					15,600	1,470	6,340	3.02		3.37		
May					3,680	610	1,310	.624		.72		
June					3,450	592	1,990	.948		1.06		
July					3,870	406	1,120	.533		.61		
August					11,600	352	2,780	1.32		1.52		
September					7,460	1,160	3,480	1.66		1.83		
The year					15,600	36	1,760	.838		11.36		

## Fishing Creek near Enfield, N. C.

Location.- Water-stage recorder at highway bridge 2,000 feet below Atlantic Coast Line Railroad bridge, 2 miles southwest of Enfield, Halifax County, and  $4\frac{1}{2}$  miles below mouth of Rocky Creek.

Drainage area.- 462 square miles.

Records available.- October 1923 to September 1934.

Average discharge.- 11 years, 470 second-feet.

Extremes.- Maximum discharge during year, 4,430 second-feet Apr. 12 (gage height, 14.60 feet); minimum, about 10 second-feet Oct. 19 (gage height, 0.14 foot).  
1923-34: Maximum discharge, 12,300 second-feet Oct. 1, 2, 1924 (gage height, 17.3 feet); minimum, that of Oct. 19, 1933.

Remarks.- Records good.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	21	14	36	44	51	743	1,510	229	498	162	1,680	116		
2	21	16	39	47	55	546	1,260	243	375	550	1,240	90		
3	18	16	36	56	112	435	530	264	300	542	526	357		
4	16	16	38	78	180	390	562	303	250	345	208	610		
5	16	18	42	75	144	582	498	330	201	229	126	352		
6	16	18	41	70	122	1,030	514	278	187	142	96	187		
7	16	18	49	60	106	855	435	236	469	111	73	147		
8	16	17	49	60	86	530	390	194	466	86	76	174		
9	15	16	50	57	74	375	712	168	300	70	66	187		
10	14	18	50	58	60	308	2,610	161	215	58	623	161		
11	14	20	52	60	63	330	3,420	138	215	51	878	138		
12	13	22	50	52	74	405	4,160	126	264	62	487	135		
13	13	24	52	58	99	435	3,920	128	988	51	330	632		
14	14	24	59	50	180	482	2,010	121	538	50	215	922		
15	13	27	48	61	174	514	795	111	236	54	126	1,030		
16	12	27	49	63	139	643	562	336	144	58	93	977		
17	12	27	42	65	114	593	774	498	116	57	75	1,680		
18	11	28	44	66	97	450	1,120	530	135	53	93	1,450		
19	11	29	47	54	91	360	1,380	405	622	53	71	694		
20	11	31	43	65	114	433	1,090	278	550	46	64	405		
21	11	33	57	47	161	1,050	905	201	352	54	56	368		
22	12	34	50	50	187	1,220	722	157	222	51	84	390		
23	12	36	51	53	154	894	530	149	138	210	173	315		
24	13	36	54	62	136	578	435	180	122	187	395	250		
25	13	37	50	82	143	530	390	194	157	104	578	285		
26	13	36	43	77	439	690	360	352	187	83	615	222		
27	13	33	39	71	1,140	708	308	390	134	53	770	187		
28	13	36	39	65	1,060	1,150	292	257	102	54	466	161		
29	14	37	39	62		1,730	278	333	148	50	405	208		
30	14	36	43	58		1,680	250	562	229	332	300	292		
31	14		46	57		1,380		594		1,270	174			
Month					Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October					21		11		14.0		0.030		0.03	
November					37		14		26.0		.056		.06	
December					59		36		46.0		.100		.12	
January					92		44		60.4		.131		.15	
February					1,140		51		198		.429		.45	
March					1,730		308		713		1.54		1.78	
April					4,160		250		1,100		2.38		2.66	
May					594		111		273		.591		.68	
June					888		102		292		.632		.71	
July					1,270		46		170		.368		.42	
August					1,680		56		360		.779		.90	
September					1,680		90		437		.946		1.06	
The year.					4,160		11		307		.665		9.02	

## Eno River at Hillsboro, N. C.

Location.- Staff gage 1,000 feet below Stage Highway 10 at Hillsboro, Orange County, and 2 miles below Severnile Creek.

Drainage area.- 66.5 square miles.

Records available.- November 1927 to September 1934.

Extremes.- Maximum discharge recorded during year, 2,500 second-feet Apr. 9 (gage height, 13.00 feet); minimum, 1.5 second-feet Oct. 11-15; minimum gage height, 0.56 foot Oct. 11, 12.  
1927-34: Maximum discharge, 4,650 second-feet Oct. 2, 1929 (gage height, estimated, 16.0 feet); minimum, 1.2 second-feet Sept. 24-26, 1932 (gage height, 0.50 foot).

Remarks.- Records good below 500 second-feet, fair above. Slight diurnal regulation, owing to operation of cotton mills.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	2.4	2.2	4.8	17.0	46	121	25	97	20	25	18.0
2	3.0	2.6	2.6	7.6	52	38	80	25	74	44	21	15.5
3	5.0	2.1	2.7	12.6	22	44	56	25	91	23	17.5	14.0
4	4.0	2.4	3.0	14.0	14.5	441	46	24	86	20	15.5	15.5
5	3.4	2.4	3.0	13.5	11.7	165	86	23	520	18.5	13.5	14.0
6	2.7	2.8	3.0	9.4	11.7	80	67	22	202	18.5	12.2	111
7	2.4	2.7	4.2	8.0	9.0	51	48	21	413	16.0	12.6	413
8	2.4	2.4	5.2	8.6	8.3	40	50	19.6	339	14.5	109	461
9	2.1	2.4	4.8	8.0	8.3	34	1,440	18.5	121	15.5	80	115
10	2.0	2.7	4.2	7.2	7.6	30	715	17.5	86	18.5	30	97
11	1.5	2.7	4.5	7.2	6.9	28	189	16.5	80	19.0	23	48
12	1.5	2.7	4.0	6.6	9.9	28	103	16.0	86	15.5	17.0	40
13	1.5	2.6	4.0	7.2	17.5	24	74	15.5	109	14.0	15.5	74
14	1.5	2.4	4.0	7.2	16.0	22	62	14.5	86	13.5	14.0	327
15	1.5	2.4	4.0	7.2	11.7	25	54	134	40	14.0	13.0	259
16	1.8	2.7	4.0	7.2	9.0	30	214	302	35	13.0	11.2	1,140
17	2.0	2.8	4.2	6.6	9.4	27	239	86	32	12.6	15.0	277
18	2.2	3.5	4.8	5.8	8.3	23	146	52	127	13.0	14.5	140
19	2.7	2.1	9.0	5.2	9.4	22	97	37	252	11.2	14.5	91
20	2.8	2.7	5.8	6.2	16.5	97	69	30	57	10.4	13.5	66
21	2.6	2.7	6.2	6.6	15.5	146	58	26	39	10.4	14.5	53
22	2.2	2.8	6.2	6.6	14.5	68	49	24	34	9.4	22	44
23	2.2	3.0	5.8	5.8	11.7	47	44	28	28	9.0	17.5	37
24	3.2	3.2	5.0	5.8	12.6	43	40	28	60	28	15.0	39
25	3.5	3.5	5.0	5.8	12.6	115	37	177	32	12.6	16.0	35
26	3.5	2.4	5.0	5.8	496	109	36	69	25	9.4	33	33
27	4.0	2.1	4.5	6.6	177	74	31	39	23	74	80	30
28	4.5	2.1	4.5	6.2	66	440	29	33	22	23	239	31
29	3.8	2.1	4.5	5.5		140	28	134	22	177	47	36
30	4.0	2.1	4.2	5.2		80	27	264	19.0	134	28	32
31	2.8		4.0	5.8		264		227		43	28	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					5.0	1.5	2.73	0.041		0.05		
November					3.5	2.1	2.58	.040		.04		
December					9.0	2.2	4.46	.067		.06		
January					14.0	5.2	7.30	.110		.13		
February					496	6.9	36.6	.580		.61		
March					441	22	91.1	1.37		1.58		
April					1,440	27	144	2.17		2.42		
May					302	14.5	63.6	.956		1.10		
June					520	19.0	107	1.61		1.80		
July					177	9.0	28.2	.424		.49		
August					239	11.2	33.2	.498		.57		
September					1,140	14.0	137	2.06		2.30		
The year					1,440	1.5	54.7	.822		11.22		

## Neuse River near Northside, N. C.

Location.- Water-stage recorder at Fish Dam Bridge,  $1\frac{1}{2}$  miles below Seaboard Air Line Railway bridge and 2 miles south of Northside, Granville County. Zero of gage is 226.32 feet above mean sea level.

Drainage area.- 574 square miles.

Records available.- July 1927 to September 1934.

Extremes.- Maximum discharge during year, about 12,600 second-feet Apr. 10; maximum gage height, 23.60 feet Apr. 10; minimum, 5.1 second-feet Nov. 5 (gage height, 0.98 foot).

1927-34: Maximum discharge, 26,600 second-feet Oct. 3, 1929 (gage height, 28.64 feet); minimum, 3.1 second-feet Sept. 20, 1932 (gage height, 0.87 foot).

Remarks.- Records good to 1,000 second-feet, fair to 2,000 second-feet, and poor above. Records estimated Nov. 18, 19, Apr. 24-29 good. Flow regulated by storage in Durham Reservoir.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	6.3	6.7	32	20	500	1,070	183	964	158	516	159
2	8.6	6.3	8.6	29	65	500	756	186	660	436	372	129
3	8.6	6.3	8.0	25	78	452	612	192	820	370	140	110
4	8.6	6.7	8.0	21	79	564	554	164	644	230	135	100
5	9.8	5.9	12	21	58	1,520	628	169	960	132	132	105
6	8.6	6.3	13	20	53	970	660	134	2,130	146	97	116
7	8.6	11	18	17	38	660	548	137	2,000	138	121	735
8	7.6	8.6	20	12	32	564	484	142	2,140	110	137	2,370
9	7.2	7.2	20	12	29	500	1,790	134	2,080	110	174	3,680
10	7.6	6.7	18	17	21	468	9,870	122	912	146	276	1,430
11	7.6	5.9	16	20	19	484	6,150	127	628	143	138	657
12	8.6	33	42	21	23	404	3,050	111	612	121	111	452
13	12	12	26	20	50	452	1,810	108	596	129	110	516
14	12	9.2	22	19	42	380	973	98	596	126	108	916
15	9.8	9.8	20	15	42	268	568	232	454	516	113	861
16	10	9.2	20	17	39	340	677	2,400	436	277	111	2,430
17	8.6	7.6	24	19	31	276	1,520	3,680	380	148	103	4,680
18	13	7	18	20	27	182	2,850	1,660	436	129	97	3,510
19	12	7	17	19	26	188	3,260	634	1,380	121	86	1,510
20	10	6.3	26	15	45	356	1,380	452	597	102	73	727
21	9.8	7.6	31	13	58	900	692	220	516	188	108	580
22	11	8.0	20	14	114	676	548	207	420	113	209	532
23	13	12	18	16	68	580	484	268	244	106	162	500
24	12	12	13	20	40	516	468	212	372	86	126	468
25	29	12	12	20	53	612	460	178	340	82	121	468
26	12	9.8	39	19	825	916	440	306	420	70	186	436
27	7.2	6.7	33	17	1,870	788	420	404	332	142	548	210
28	6.3	7.2	18	16	972	1,820	400	364	161	162	921	452
29	6.3	6.7	15	11		2,590	380	516	204	736	1,480	292
30	7.2	6.3	18	10		1,350	284	1,170	190	1,240	436	207
31	6.3		19	11		820		1,170		934	212	

Month	Maximum	Minimum	Mean	Per square m <sup>2</sup> le	Run-off in inches
October	29	6.3	9.96	0.017	0.02
November	33	5.9	8.89	.015	.02
December	42	6.7	19.3	.034	.04
January	32	10	18.0	.031	.04
February	1,870	19	172	.300	.31
March	2,590	182	707	1.23	1.42
April	9,870	284	1,460	2.54	2.83
May	3,680	98	518	.902	1.04
June	2,140	161	756	1.33	1.48
July	1,240	70	245	.427	.49
August	1,480	73	247	.430	.50
September	4,680	100	965	1.68	1.87
The year	9,870	5.9	426	.742	10.06

## Neuse River near Clayton, N. C.

Location.- Water-stage recorder at bridge 3 miles east of Clayton, Johnston County.  
Zero of gage is 128.12 feet above mean sea level.

Drainage area.- 1,180 square miles.

Records available.- July 1927 to September 1934.

Extremes.- Maximum discharge during year, 9,020 second-feet during flood of Apr. 10-15; minimum, 48 second-feet several times during period Oct. 5-10 (gage height, 0.32 foot).

1927-34: Maximum discharge, 23,100 second-feet Oct. 3, 1929 (gage height, 21.62 feet); minimum, 44 second-feet Sept. 15, 1932 (gage height, 0.28 foot).

Remarks.- Records good except those estimated Oct. 5-10, Nov. 9-17, Dec. 30 to Jan. 12, Jan. 30 to Feb. 28, Mar. 25 to Apr. 22, June 24, 25, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	109	110	110	150	2,340	2,500	582	1,920	384	2,060	637
2	71	77	104	110	200	1,140	2,000	486	1,640	1,380	1,110	465
3	87	72	104	120	250	917	1,400	452	1,110	1,440	637	423
4	90	101	88	150	230	857	1,200	448	1,240	1,110	432	415
5	58	164	110	200	200	1,850	1,100	440	1,370	689	322	361
6	52	134	107	220	150	2,580	1,100	403	1,940	461	280	398
7	52	174	101	220	130	2,060	1,100	366	3,060	403	296	403
8	49	166	140	140	120	1,270	1,100	340	3,550	340	296	788
9	48	110	117	130	110	1,010	3,600	329	3,460	336	395	2,160
10	51	110	94	120	110	948	7,000	329	3,220	689	617	3,220
11	55	105	81	110	120	980	8,000	309	1,840	540	857	3,820
12	61	95	145	120	180	1,080	8,200	299	1,140	403	486	2,030
13	57	90	117	136	300	1,010	8,400	296	2,900	333	340	4,130
14	58	120	110	145	200	1,080	8,200	262	1,500	354	350	1,780
15	55	180	143	90	150	1,180	6,000	340	1,010	857	286	1,640
16	57	130	141	121	140	1,270	4,200	1,590	799	689	265	2,140
17	66	120	110	112	130	1,110	3,000	3,220	663	602	277	4,180
18	106	104	80	80	130	857	3,000	4,000	1,300	372	256	4,450
19	112	101	117	125	130	689	3,000	4,000	4,180	322	242	4,720
20	76	96	149	121	130	857	5,000	1,650	2,500	302	232	4,810
21	66	109	157	90	200	1,640	5,000	857	1,500	874	237	2,690
22	72	136	153	81	280	1,850	2,400	564	857	796	399	1,040
23	73	117	123	211	210	1,570	1,140	632	689	1,060	540	857
24	126	123	119	185	150	1,180	980	663	1,200	1,100	1,140	799
25	145	141	82	151	140	1,100	948	508	1,100	545	663	689
26	114	136	102	155	800	1,200	857	432	587	365	2,110	663
27	77	110	121	145	1,400	1,300	799	444	612	312	4,900	837
28	76	116	117	132	2,500	2,200	743	573	545	290	2,030	948
29	93	116	114	90		4,000	716	663	407	305	4,220	1,010
30	94	98	110	90		4,200	663	1,210	329	862	3,760	857
31	101		110	100		4,200		1,780		1,920	1,470	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					145	48	76.5	0.065		0.08		
November					180	72	119	.101		.11		
December					157	80	115	.097		.11		
January					220	80	133	.113		.13		
February					2,500	110	319	.270		.28		
March					4,200	689	1,600	1.35		1.57		
April					8,400	663	3,110	2.64		2.95		
May					4,000	262	918	.778		.90		
June					4,130	329	1,610	1.35		1.52		
July					1,920	290	660	.569		.64		
August					4,900	232	1,020	.864		1.00		
September					4,810	361	1,770	1.50		1.67		
The year.					8,400	48	951	.806		10.96		



## Neuse River near Goldsboro, N. C.

Location.- Water-stage recorder a quarter of a mile above highway bridge on State Highway 40, 2½ miles above Stoney Creek, and 3 miles south of Goldsboro, Wayne County.

Drainage area.- 2,380 square miles.

Records available.- February 1930 to September 1934.

Extremes.- Maximum discharge during year, 9,300 second-feet Apr. 19 (gage height, 15.99 feet); minimum, 134 second-feet Oct. 26 (gage height, 1.31 feet).  
1930-34: Maximum discharge, 11,400 second-feet Aug. 18, 1931 (gage height, 17.50 feet); minimum, 85 second-feet Sept. 14, 1932 (gage height, 1.03 feet).  
Maximum stage known, 25.3 feet Oct. 5, 1929 (discharge, 38,600 second-feet).

Remarks.- Records good. Discharge estimated Aug. 18-25.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	237	157	210	257	326	2,380	5,260	1,420	1,880	827	3,630	5,470
2	221	164	217	270	420	2,860	5,470	1,280	2,360	2,430	4,170	4,540
3	206	170	208	286	468	2,390	5,400	1,190	2,530	3,330	3,930	2,480
4	199	172	215	326	644	1,520	4,540	1,100	2,200	4,420	3,570	1,780
5	189	164	213	376	625	1,280	3,270	1,030	1,920	4,870	2,420	1,680
6	199	164	204	376	554	1,450	2,640	988	2,140	3,970	2,310	1,420
7	191	210	202	356	519	2,500	2,530	920	2,420	2,530	2,310	1,140
8	176	235	228	345	502	2,970	2,480	852	3,210	1,630	1,620	1,140
9	172	230	228	331	436	2,420	2,360	785	4,110	1,240	1,140	1,140
10	161	246	221	298	405	1,780	2,700	701	4,680	1,630	1,030	1,820
11	155	230	243	286	390	1,780	4,050	662	4,800	3,030	1,120	2,800
12	157	195	226	301	390	1,920	4,940	644	4,680	4,170	1,520	3,330
13	165	180	217	270	436	2,140	5,610	589	3,690	4,030	1,820	3,630
14	147	187	217	263	572	2,260	6,390	554	2,530	3,870	1,520	3,270
15	145	191	266	263	742	2,310	7,120	554	2,970	3,330	1,120	3,570
16	142	193	241	296	682	2,480	7,880	625	2,360	3,210	988	3,690
17	140	235	246	282	607	2,700	8,400	1,000	1,620	3,150	875	3,630
18	142	257	252	261	554	2,700	8,950	2,680	1,280	2,640	764	4,420
19	140	243	259	286	519	2,360	9,300	3,750	1,960	1,930	701	5,130
20	147	228	250	275	536	2,090	9,060	4,170	3,870	1,520	644	5,470
21	174	208	239	254	607	2,260	8,290	4,350	5,130	1,530	625	5,750
22	180	206	291	277	742	2,970	7,580	3,370	5,910	1,690	625	6,070
23	164	202	301	277	742	3,510	7,300	1,680	5,610	2,920	701	5,830
24	157	210	308	296	682	3,570	6,870	1,100	3,450	4,630	1,060	4,350
25	140	230	296	376	625	3,090	5,070	1,060	2,040	5,470	1,380	2,360
26	138	224	266	420	607	2,700	2,970	988	1,780	5,540	1,880	1,780
27	176	213	246	420	589	2,580	2,310	625	1,380	5,610	2,040	1,520
28	199	232	237	420	1,270	3,090	1,920	722	1,190	4,540	3,750	1,420
29	176	226	250	420		3,610	1,680	764	1,030	3,030	4,800	1,680
30	161	206	254	390		4,540	1,520	920		875	2,310	5,260
31	155		250	331		5,060		1,190		2,970	5,400	
Month						Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October						237	138	169	0.071		0.08	
November						257	157	207	.087		.10	
December						308	202	242	.102		.12	
January						420	254	319	.134		.15	
February						1,270	326	578	.243		.25	
March						5,060	1,280	2,630	1.11		1.28	
April						9,300	1,520	5,130	2.16		2.41	
May						4,350	554	1,360	.571		.66	
June						5,910	875	2,850	1.20		1.34	
July						5,610	827	3,170	1.33		1.53	
August						5,400	625	2,090	.878		1.01	
September						6,070	1,140	3,150	1.32		1.47	
The year						9,300	138	1,820	.765		10.40	

## Neuse River at Kinston, N. C.

Location.- Chain gage at bridge on State Highway 12 at Kinston, Lenoir County. Zero of gage is 10.00 feet above mean sea level.

Drainage area.- 2,700 square miles.

Records available.- February 1930 to September 1934.

Extremes.- Maximum discharge during year, 9,320 second-feet Apr. 22 (gage height, estimated, 14.70 feet); minimum, 166 second-feet Oct. 27 (gage height, 1.56 feet).  
1930-34: Maximum discharge, 12,000 second-feet Mar. 16, 1932 (gage height, 16.24 feet); minimum, 124 second-feet Sept. 26, 1932 (gage height, 1.29 feet).  
Maximum stage known, 24.6 feet July 1919 (discharge, about 39,000 second-feet).

Remarks.- Records poor.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	353	200	239	280	526	996	4,300	1,560	1,460	1,510	3,300	5,160
2	353	200	226	280	560	1,560	4,600	1,760	1,910	2,450	3,500	5,400
3	368	226	280	323	628	2,960	5,160	1,710	2,340	3,810	4,000	5,740
4	353	226	280	280	664	2,620	5,320	1,560	2,670	4,840	4,760	4,760
5	323	226	280	353	780	2,010	5,480	1,370	2,560	5,080	4,370	3,260
6	308	226	280	395	864	1,610	4,300	1,280	2,230	5,160	3,440	2,340
7	280	239	280	462	700	1,560	3,560	1,180	2,340	5,000	2,900	2,230
8	294	213	266	450	700	2,180	2,900	1,130	2,620	3,680	2,670	2,280
9	280	252	266	395	664	2,780	2,720	1,090	2,960	2,780	2,230	1,960
10	290	266	266	398	560	2,500	2,900	996	3,620	2,060	1,610	1,560
11	252	226	294	353	560	2,450	3,020	908	4,020	2,060	1,660	2,560
12	226	280	280	308	628	2,340	3,500	822	4,440	3,260	1,660	2,720
13	226	280	252	368	664	2,230	4,230	780	4,760	4,090	1,710	3,260
14	213	252	239	335	700	2,340	4,920	780	4,600	4,600	1,810	3,560
15	226	239	239	308	700	2,450	5,400	740	3,950	4,680	1,810	3,660
16	226	239	294	323	780	2,450	5,920	740	2,900	4,370	1,460	3,950
17	239	250	338	323	822	2,560	6,750	780	2,500	3,810	1,280	4,300
18	239	280	294	323	740	2,720	8,440	1,040	2,120	3,500	1,180	4,680
19	213	308	323	308	664	2,840	9,460	2,010	1,860	3,020	1,040	5,160
20	213	323	323	323	864	2,670	9,970	3,080	1,910	2,620	952	6,370
21	200	323	308	353	908	2,560	10,700	3,560	3,140	2,120	864	6,850
22	157	323	280	368	864	2,620	10,700	3,880	3,680	2,060	864	6,850
23	200	280	280	338	952	2,960	10,500	3,740	4,680	2,280	1,040	6,850
24	200	266	323	353	1,040	3,320	9,970	2,560	5,080	2,670	1,320	6,750
25	200	294	353	383	1,090	3,560	9,170	1,560	5,320	3,740	1,460	6,280
26	200	308	368	462	952	3,380	8,300	1,280	3,880	4,920	1,560	4,840
27	174	280	294	560	864	3,020	6,550	1,230	2,500	6,460	2,340	3,080
28	174	266	280	560	908	3,080	3,810	1,130	1,810	6,000	2,780	2,230
29	200	294	213	560		3,320	2,670	1,090	1,610	6,000	3,380	1,660
30	239	294	252	494		3,620	2,120	1,040	1,370	5,000	4,020	1,610
31	239		266	462		3,950		1,180		3,600	4,680	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					368	174	248	0.092		0.11		
November					323	200	264	.098		.11		
December					368	213	282	.104		.12		
January					560	280	380	.141		.16		
February					1,090	526	752	.282		.29		
March					3,950	996	2,620	.970		1.12		
April					10,700	2,120	5,910	2.19		2.44		
May					3,880	740	1,540	.570		.66		
June					5,320	1,370	3,030	1.12		1.25		
July					6,000	1,510	3,780	1.40		1.61		
August					4,760	864	2,320	.859		1.67		
September					6,850	1,610	4,060	1.50		1.99		
The year					10,700	174	2,100	.778		10.53		

## Flat River at Bahama, N. C.

Location.- Water-stage recorder at head of Lake Michie,  $1\frac{1}{2}$  miles (revised) above Dial Creek and 1 mile north of Bahama. Durham County. Zero of gage is 255.05 feet above mean sea level.

Drainage area.- 150 square miles.

Records available.- July 1925 to September 1934.

Extremes.- Maximum discharge during year, 13,600 second-feet Sept. 8 (gage height, 11.14 feet); minimum, 0.47 second-foot Oct. 26, 27 (gage height, 0.27 foot).  
1925-34: Maximum discharge, that of Sept. 8, 1934; minimum, 0.37 second-foot Sept. 26, 27, 1932 (gage height, 0.23 foot).

Remarks.- Records good except those estimated Oct. 13-15, Dec. 31 to Jan. 10, July 8-13, Aug. 18-21, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.55	0.57	.66	7.0	6.6	98	298	48	245	77	56	20
2	1.63	.60	.66	6.0	16.3	73	180	51	178	185	42	22
3	1.67	.60	.69	5.0	47	387	136	48	149	150	31	18.7
4	1.67	.60	.75	4.0	27	1,500	105	45	116	60	27	17.5
5	1.70	.63	.75	3.9	22	526	191	44	506	46	18.7	17.1
6	1.70	.87	.87	4.0	17.9	245	140	42	478	40	18.7	491
7	1.59	.91	1.55	4.3	15.1	145	102	40	636	36	42	3,600
8	1.43	.87	1.51	4.3	12.8	104	98	36	852	30	170	4,950
9	1.32	.81	1.32	4.45	11.1	107	4,080	45	245	27	64	296
10	1.36	.69	1.28	3.9	9.2	86	3,410	34	156	33	44	247
11	1.32	.69	1.18	4.0	8.6	79	440	24	130	34	30	114
12	1.28	.63	1.11	3.76	8.0	68	254	23	98	27	23	79
13	1.25	.63	1.11	4.0	8.0	52	193	22	104	24	23	142
14	1.25	.78	1.11	4.0	8.0	50	156	24	70	20	20	133
15	1.30	.61	1.11	4.0	8.0	53	123	82	57	26	19.1	257
16	3.9	.75	1.14	3.6	7.4	85	700	1,060	53	34	17.1	2,230
17	3.05	.69	1.14	3.05	7.4	63	698	199	40	28	11.8	595
18	2.70	.69	1.14	3.5	7.4	49	490	112	185	17.9	11.4	207
19	2.12	.69	1.18	4.0	8.3	44	248	68	637	17.9	10	132
20	1.63	.69	2.08	4.3	9.2	256	193	54	119	16.3	20	109
21	1.28	.69	3.5	4.3	8.6	452	149	44	73	34	35	85
22	1.04	.69	3.35	4.0	9.5	176	114	38	50	21	15.5	73
23	.84	.69	2.61	4.0	12.2	114	102	48	87	17.9	18.3	63
24	.72	.72	2.21	3.9	12.2	93	87	51	493	19.1	30	57
25	.60	.72	2.34	4.0	20	284	82	546	110	17.1	151	54
26	.47	.75	2.9	4.6	1,050	344	71	241	64	16.7	531	50
27	.47	.72	2.55	5.2	695	209	64	98	51	17.5	178	50
28	.52	.69	2.18	5.5	163	1,720	61	73	47	33	70	216
29	.55	.69	2.75	4.85		372	50	220	40	1,080	42	81
30	.63	.69	3.9	4.15		210	50	760	45	437	36	65
31	.69		5.4	3.35		364		1,010		115	29	
Month	Maximum		Minimum		Mean		Per square mile		Run-off in inches			
October	3.90		0.47		1.39		0.009		0.01			
November	.91		.57		.708		.0047		.005			
December	5.4		.66		1.81		.012		.01			
January	7.0		3.05		4.29		.029		.03			
February	1,050		6.6		79.8		.532		.55			
March	1,720		44		271		1.81		2.09			
April	4,080		50		436		2.91		3.25			
May	1,050		22		169		1.13		1.30			
June	852		40		204		1.36		1.62			
July	1,080		16.3		90.2		.601		.69			
August	531		10		59.2		.395		.46			
September	4,950		17.1		482		3.21		3.58			
The year	4,950		.47		149		.993		13.50			

## Flat River at Dam near Bahama, N. C.

Location.- Water-stage recorder just below new Durham municipal dam at old Tilley mill site, 3 miles southeast of Bahama, Durham County, and 4 miles above junction with Eno River.

Drainage area.- 171 square miles.

Records available.- August 1927 to September 1934.

Extremes.- Maximum discharge during year, 10,800 second-feet Sept. 8 (gage height, 18.48 feet); minimum, 0.14 second-foot Dec. 5 (gage height, 0.85 foot); minimum daily discharge, 0.20 second-foot Dec. 5, 1927-34: Maximum discharge, 11,400 second-feet Oct. 2, 1929 (gage height, 18.72 feet); minimum, that of Dec. 5, 1933; minimum daily discharge, that of Dec. 5, 1933.

Remarks.- Records good except those estimated Dec. 2-4, Mar. 19-23, June 8-10, 24-28, Aug. 24 to Sept. 7, Sept. 9-13, which are fair. Flow regulated by storage reservoir. Diversion for Durham water supply above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.60	3.70	1.25	.76	1.25	258	282	71	276	64	307	60
2	4.60	3.70	1.25	1.25	1.25	250	287	76	235	86	125	50
3	4.60	3.70	1.25	2.50	1.25	250	309	76	195	89	66	60
4	4.60	3.70	.50	1.25	1.25	177	308	61	277	55	85	50
5	4.60	3.70	.20	.65	1.25	270	306	64	306	72	64	60
6	4.60	3.70	.23	.65	1.25	297	278	58	346	78	84	60
7	4.60	3.70	.26	.97	1.25	296	251	68	605	74	85	500
8	4.60	3.70	.23	.97	1.25	321	221	73	350	50	78	5,420
9	4.60	3.70	.26	1.25	1.25	288	2,130	72	500	84	68	600
10	4.60	3.70	2.50	1.25	1.25	311	3,660	73	380	82	51	350
11	4.10	19	31	1.25	1.25	185	614	68	291	76	54	400
12	4.10	3.30	3.30	1.25	.97	259	397	56	289	86	58	350
13	4.10	4.10	1.85	.97	.97	286	284	58	269	75	62	300
14	4.10	3.70	1.25	1.25	1.25	106	236	68	273	70	65	277
15	4.60	3.70	9.7	1.25	1.25	76	161	75	271	54	86	284
16	4.10	3.30	2.70	1.25	1.25	73	289	138	237	67	89	1,250
17	4.60	3.70	.97	1.25	1.25	50	706	281	231	79	81	908
18	4.10	3.70	.97	1.25	1.25	48	713	284	230	82	76	392
19	4.10	3.30	1.25	.97	1.25	130	276	267	284	71	37	301
20	3.70	3.30	1.25	1.25	1.85	320	316	122	283	28	69	274
21	4.10	3.30	1.25	1.25	51	200	255	63	273	41	87	284
22	4.10	4.10	1.25	1.25	41	250	177	78	201	24	85	274
23	3.70	4.10	.97	1.25	4.10	250	287	74	65	29	86	263
24	25	2.50	.97	1.55	4.60	246	299	76	70	44	65	277
25	4.10	.97	33	1.25	4.60	171	264	56	150	20	72	297
26	3.70	.97	11	.97	7.0	279	281	134	140	43	46	165
27	3.70	.97	1.25	1.25	34	288	293	203	125	40	50	76
28	3.70	.97	1.25	1.25	86	314	281	284	84	42	59	76
29	4.10	.97	1.25	1.25		411	196	301	85	68	65	66
30	3.70	.97	1.25	1.25		329	98	287	79	253	50	59
31	3.70		.97	1.25		262		251		308	60	
Month						Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October						25		3.70	4.88	0.029	0.03	
November						19		.97	3.60	.021	.02	
December						33		.20	3.76	.022	.03	
January						2.50		.65	1.20	.007	.008	
February						86		.97	9.19	.054	.06	
March						411	48	234	1.37		1.58	
April						3,660	98	482	2.82		3.15	
May						301	56	126	.737		.85	
June						605	65	247	1.44		1.61	
July						308	20	74.6	.436		.50	
August						307	37	77.7	.454		.52	
September						5,420	50	459	2.68		2.99	
The year						5,420		.20	143	.836	11.35	

## Dial Creek near Bahama, N. C.

Location.- Water-stage recorder three-eighths of a mile above confluence with Flat River and Lake Michie and  $1\frac{1}{2}$  miles northeast of Bahama, Durham County.

Drainage area.- 4.9 square miles.

Records available.- October 1925 to September 1934.

Extremes.- Maximum discharge during year, 273 second-feet Apr. 9 (gage height, 4.18 feet); no flow Oct. 1 to Nov. 4.  
1925-34: Maximum discharge, 575 second-feet Apr. 27, 1928 (gage height, 5.60 feet); no flow at times in 1926, 1930-33.

Remarks.- Records good below 10 second-feet. Those estimated Feb. 26 to Mar. 2 and those above 10 second-feet are fair. Discharge determined by weir formulae, checked by current-meter measurements below 15 second-feet.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.01	0.33	2.81	3	5.0	1.79	5.5	4.58	1.41	0.37
2		0	.01	.77	3.23	2.5	3.71	1.74	14.8	4.56	1.20	.33
3		0	.01	.43	1.20	5.5	3.12	1.74	10.3	4.11	.97	.35
4		0	.01	.31	.80	19.0	2.84	1.64	4.91	1.64	.74	.41
5		.01	.07	.30	.66	10.0	9.3	1.36	22	1.28	.60	.30
6		.01	.16	.33	.55	4.37	4.04	1.28	19.1	.94	.46	3.10
7		.01	.48	.37	.46	2.91	3.48	1.12	20	.74	18.2	26
8		.01	.39	.37	.43	2.34	2.98	.90	7.1	.74	5.6	6.1
9		.01	.20	.35	.35	2.22	129	.84	4.64	1.12	1.94	18.1
10		.01	.18	.28	.23	2.05	36	.84	3.48	.94	1.24	3.64
11		.01	.16	.23	.26	2.46	11.0	.90	2.84	.68	.97	1.94
12		.01	.13	.25	.92	1.69	6.4	.80	2.40	.92	.80	1.41
13		.01	.12	.46	1.16	1.50	4.73	.74	3.05	.87	.68	1.64
14		.02	.12	.48	.66	1.45	3.79	.71	1.74	1.20	.55	2.11
15		.01	.13	.33	.60	2.84	3.26	9.3	1.50	1.86	.50	13.2
16		.01	.13	.26	.55	2.84	17.7	26	1.28	.68	.33	43
17		.01	.14	.25	.48	2.00	35	5.7	1.12	.48	.33	12.7
18		.01	.13	.22	.39	1.79	20	3.26	32	.46	.39	5.0
19		.01	.14	.22	.85	1.59	9.1	2.22	8.5	.37	.41	3.41
20		.01	.46	.25	2.21	9.2	6.3	1.59	3.05	1.12	.39	2.65
21		.01	.55	.23	1.01	5.3	4.73	1.24	2.00	4.76	.30	2.28
22		.01	.31	.25	.90	3.26	3.87	1.12	1.54	.80	.80	2.11
23		.01	.25	.39	1.01	2.65	3.41	1.26	4.66	.58	.48	1.64
24		.01	.22	.35	.84	2.78	3.05	1.04	3.55	.50	.46	1.41
25		.01	.20	.28	27	9.5	2.71	3.20	1.74	.41	1.24	1.32
26		.01	.26	.28	13	6.4	2.34	1.50	1.24	1.07	5.6	1.24
27		.01	.43	.28	6	11.0	2.28	1.24	.97	2.07	2.11	5.0
28		.01	.28	.28	4	39	1.94	1.28	.98	10.3	1.66	6.4
29		.01	.20	.23		8.9	1.89	4.45	.84	34	.97	3.12
30		.01	.16	.16		5.3	1.84	22	.71	7.9	.58	2.11
31			.16	.12		7.6		15.4		2.28	.48	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					0	0	0	0		0		
November					.02	.01	.009	.0018		.002		
December					.55	.01	.199	.041		.05		
January					.77	.12	.311	.063		.07		
February					27	.23	2.59	.529		.55		
March					39	1.45	5.90	1.20		1.38		
April					129	1.84	11.5	2.35		2.62		
May					26	.71	3.81	.778		.90		
June					32	.71	6.25	1.28		1.43		
July					34	.37	3.03	.620		.71		
August					18.2	.30	1.69	.345		.40		
September					43	.30	5.81	1.19		1.33		
The year.					129	0	3.41	.696		9.44		

Note.- No flow during October.

## Little River near Princeton, N. C.

Location.- Staff gage a quarter of a mile above county bridge, three-quarters of a mile above Little Creek, and 3 miles north of Princeton, Johnston County.

Drainage area.- 221 square miles.

Records available.- February 1930 to September 1933, January 1934 to September 1934.

Extremes.- Maximum discharge during period, 2,450 second-feet June 20 (gage height, 10.0 feet, from graph based on gage readings); minimum, 9.2 second-feet Jan. 21 (gage height, 0.58 foot).

1930-33, 1934: Maximum discharge, that of June 20, 1934; minimum, 1.0 second-foot several times in September 1932 and Oct. 2, 3, 1932.  
Maximum known gage height, 14.90 feet September 1924.

Remarks.- Records good. Daily regulation from operation of mill upstream.

Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					20	82	332	86	145	51	264	582
2					38	80	281	88	179	179	230	282
3					45	94	247	72	145	230	170	265
4					41	83	196	83	154	213	145	350
5					56	92	204	77	170	128	704	215
6					50	120	213	69	247	83	518	167
7					38	128	188	76	264	77	154	167
8					37	101	162	60	518	65	95	169
9					31	103	402	60	478	128	82	161
10					31	111	610	56	298	247	128	169
11					28	120	891	57	247	366	170	120
12					38	154	810	52	264	459	366	105
13					53	162	864	37	170	281	281	87
14					70	170	628	51	145	136	145	191
15					73	204	366	46	170	108	105	498
16					63	264	281	92	136	120	77	440
17					54	247	315	204	111	88	61	810
18				23	37	213	352	281	490	84	63	478
19				16	50	188	478	264	1,620	70	54	333
20				28	52	213	628	179	1,700	70	63	539
21				9.2	63	332	864	128	478	95	51	350
22				16	63	349	560	95	349	154	48	207
23				32	62	298	532	86	264	459	69	167
24				27	63	264	230	60	247	918	230	161
25				36	43	230	188	61	170	366	204	135
26				44	63	264	162	58	128	196	402	120
27				44	54	247	136	57	108	188	1,430	105
28				37	74	384	120	70	80	179	1,080	422
29				42	498	108	108	76	66	120	864	560
30				33	421	97	97	111	56	230	1,030	251
31				20	349			128		298	704	
Month	Maximum			Minimum			Mean			Per square mile		Run-off in inches
October												
November												
December												
January 18-31	44			9.2			29.1			0.132		0.07
February	74			20			49.6			.224		.23
March	495			80			212			.959		1.11
April	891			97			381			1.72		1.32
May	281			37			94.2			.426		.49
June	1,820			56			327			1.48		1.65
July	918			51			206			.932		1.07
August	1,430			48			322			1.46		1.68
September	810			87			285			1.29		1.44
The year.												

## Contentnea Creek near Wilson, N. C.

Location.- Water-stage recorder at State Highway bridge 1 mile above Atlantic Coast Line Railroad bridge and 3 miles southwest of Wilson, Wilson County. Prior to June 23, 1934, staff gage with same datum at municipal power plant 250 feet upstream.

Drainage area.- 245 square miles.

Records available.- February 1930 to September 1934.

Extremes.- Maximum discharge during year, 2,360 second-feet July 24 (gage height, 8.68 feet); minimum, about 0.2 second-foot several days in December (gage height, 0.40 foot).

1930-34: Maximum discharge, that of July 24, 1934; minimum, 0.2 second-foot several days in October 1932 and December 1933.

Remarks.- Records good except those estimated June 10, 19-22, Sept. 8, 11-21, which are fair. Flow regulated by storage in pond just above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June.	July	Aug.	Sept.
1	2.4	0.6	0.2	1.2	61	106	351	24	148	30	242	326
2	2.4	.4	.2	.7	1.3	39	311	48	80	363	74	218
3	2.4	.4	.2	.7	42	94	249	138	160	373	172	248
4	2.3	.4	.2	.7	.8	1	179	34	248	346	122	428
5	2.2	.4	.2	.7	36	83	147	148	151	267	1,030	336
6	3.2	.4	.2	.7	37	59	157	6.0	37	144	1,100	280
7	2.3	.3	.3	.6	.8	111	243	130	219	67	734	252
8	2.3	.3	.2	.6	36	159	137	6.0	262	6.8	381	230
9	2.3	.3	.2	18	.7	39	254	30	332	332	222	49
10	2.0	.3	.2	.4	47	134	401	83	350	1,530	90	208
11	1.9	.3	.2	31	.9	30	778	8.9	127	1,280	156	36
12	1.9	.3	.2	3.6	35	131	1,040	42	317	556	260	140
13	1.9	.3	.2	43	78	88	1,020	8.9	190	344	547	36
14	1.9	.3	.2	.6	.8	137	688	8.9	151	260	500	120
15	1.8	.3	.2	.6	54	195	357	65	27	26	274	150
16	1.8	.3	.2	.6	39	183	302	182	156	103	104	500
17	1.4	.3	.2	.6	85	250	267	151	26	54	26	800
18	1.2	.3	.2	36	.5	191	334	242	50	56	137	600
19	1.1	.3	.2	1.8	49	167	382	247	550	196	6.4	400
20	1.1	.3	.2	1.2	34	231	524	39	1,200	46	58	500
21	1.1	.3	.2	1.0	34	182	771	145	900	194	65	370
22	1.0	.3	.2	.9	39	276	581	28	360	194	59	300
23	1.0	.3	.2	31	45	321	455	86	288	466	75	238
24	1.0	.2	.2	1.6	44	321	309	26	28	2,030	231	218
25	1.0	.2	.2	1.0	.6	151	232	26	52	1,340	251	102
26	1.0	.2	.2	36	117	229	185	51	183	514	459	122
27	1.0	.2	12	36	1.8	205	56	28	102	286	1,290	100
28	1.0	.2	22	.4	39	284	228	28	49	240	1,270	173
29	.9	.2	12	36		426	24	152	52	37	1,760	557
30	.8	.2	2.2	1.3		477	138	27	144	552	1,620	584
31	.8		2.0	1.3		450		86		260	726	
Month						Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October						3.2	0.8	1.63	0.0067		0.008	
November						.6	.2	.30	.0012		.001	
December						22	.2	1.79	.0073		.008	
January						43	.4	9.35	.038		.04	
February						117	.5	34.3	.140		.15	
March						477	1.0	165	.755		.87	
April						1,040	24	370	1.51		1.68	
May						247	6.0	75.0	.306		.35	
June						1,200	26	230	.939		1.05	
July						2,030	6.8	403	1.64		1.89	
August						1,760	6.4	453	1.85		2.13	
September						800	49	287	1.17		1.30	
The year						2,030	.2	171	.698		9.48	

## Contentnea Creek at Hookerton, N. C.

Location.- Staff gage just below the East Carolina Railway bridge at Hookerton, Greene County.

Drainage area.- 691 square miles.

Records available.- November 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 2,470 second-feet Sept. 22 (gage height, 11.86 feet); minimum, 15 second-feet Oct. 28 (gage height, 1.22 feet).  
1928-34: Maximum discharge, 11, 100 second-feet Oct. 8, 1929 (gage height, 18.9 feet); minimum, 13 second-feet Sept. 16, 17, 1932 (gage height, 1.17 feet).

Remarks.- Records poor to Aug. 24, fair thereafter.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	26	44	53	136	296	1,020	360	223	251	1,530	2,320
2	53	24	44	50	153	251	994	320	251	765	1,360	2,370
3	53	22	50	61	266	223	952	300	296	994	1,270	2,320
4	46	18	55	78	327	209	889	280	311	931	1,100	1,960
5	46	20	55	82	251	209	826	260	375	889	847	1,530
6	50	26	60	87	209	251	785	240	426	847	805	1,300
7	53	31	65	92	183	223	725	220	479	745	765	1,270
8	61	38	70	92	171	209	646	220	570	589	889	1,300
9	65	43	69	87	159	223	765	200	627	497	1,020	1,140
10	65	46	65	78	142	251	973	190	665	375	1,240	973
11	53	53	61	74	130	343	1,100	180	725	533	1,430	805
12	48	57	61	69	136	497	1,300	180	765	889	1,210	685
13	40	53	61	69	196	570	1,330	183	765	1,890	910	570
14	35	50	65	74	281	570	1,430	183	627	2,180	826	461
15	30	50	65	74	281	570	1,600	183	589	2,280	889	515
16	28	50	69	78	281	570	1,680	311	497	2,280	973	805
17	28	50	69	78	251	551	1,680	443	392	1,600	1,020	1,240
18	33	55	69	78	196	589	1,720	515	311	725	973	1,720
19	38	55	74	74	183	589	1,600	608	311	409	646	1,920
20	43	50	74	69	266	589	1,200	646	359	281	533	2,280
21	43	48	74	69	375	627	1,020	705	409	281	479	2,420
22	35	48	74	65	359	685	1,190	725	443	327	443	2,420
23	27	48	74	65	327	725	1,300	665	461	359	343	2,230
24	23	50	69	65	311	745	1,680	533	1,720	392	497	1,840
25	22	50	69	65	311	745	1,800	443	1,600	868	745	1,360
26	19	48	69	110	281	765	1,560	359	952	1,160	910	952
27	16	48	69	159	251	685	1,160	251	426	1,640	1,040	665
28	15	46	69	196	266	665	900	209	311	2,180	1,120	515
29	18	46	69	209		785	600	209	296	2,370	1,330	461
30	22	46	69	209		1,060	440	196	237	2,480	1,720	461
31	26		57	159		1,120		209		1,920	2,140	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October . . . . .	65	15	38.4	0.056	0.06
November . . . . .	57	13	43.2	.065	.07
December . . . . .	74	44	64.7	.094	.11
January . . . . .	209	50	92.5	.134	.15
February . . . . .	375	130	239	.346	.36
March . . . . .	1,120	209	529	.766	.88
April . . . . .	1,800	440	1,160	1.68	1.87
May . . . . .	725	180	340	.492	.57
June . . . . .	1,720	223	547	.792	.88
July . . . . .	2,480	251	1,090	1.58	1.82
August . . . . .	2,140	343	1,000	1.45	1.57
September . . . . .	2,420	461	1,360	1.97	2.20
The year . . . . .	2,480	15	542	.784	10.64



## Haw River near BenaJa, N. C.

Location.- Water-stage recorder at old High Rock mill site 500 feet above county road crossing, half a mile upstream from county line, and 6 miles east of BenaJa, Rockingham County.

Drainage area.- 168 square miles.

Records available.- October 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 1,640 second-feet Apr. 10 (gage height, 7.73 feet); minimum, 18 second-feet Oct. 15 (gage height, 1.06 feet).  
1928-34: Maximum discharge, 5,020 second-feet Oct. 3, 1929 (gage height, 13.54 feet); minimum, 6.3 second-feet Sept. 1, 1932 (gage height, 0.73 foot).

Remarks.- Slight daily regulation, owing to operation of gristmills. Records good except those estimated Jan. 5-20, Apr. 20-22, Apr. 27 to May 2, May 16-19, 31, June 1, 6, 7, which are poor.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	29	38	56	61	583	364	163	400	50	230	88
2	42	32	43	86	108	533	320	123	342	55	214	61
3	61	34	43	86	106	584	320	78	298	46	101	54
4	40	28	42	68	84	1,240	276	76	226	42	62	51
5	34	35	50	70	70	1,480	240	73	276	40	52	51
6	29	41	43	75	66	1,160	210	66	450	56	44	169
7	28	47	71	80	60	712	180	62	520	49	47	228
8	28	40	84	90	59	458	176	64	446	36	80	479
9	21	35	70	120	59	342	997	57	364	77	82	434
10	26	35	53	90	40	276	1,540	48	266	242	59	342
11	24	38	47	65	54	276	1,010	52	199	298	55	266
12	22	36	50	50	58	276	976	46	163	197	46	287
13	21	34	50	50	70	109	594	46	136	141	40	236
14	24	53	47	60	62	95	375	40	123	103	40	160
15	21	50	49	85	58	101	287	57	123	73	43	186
16	20	42	52	75	55	89	320	700	121	49	36	398
17	31	37	50	70	51	83	364	600	88	46	38	546
18	35	38	45	65	44	77	353	450	66	40	37	835
19	33	42	49	60	49	76	331	350	74	36	36	672
20	26	40	64	61	78	128	287	256	61	36	33	470
21	26	40	127	51	70	184	244	201	51	52	29	320
22	27	46	109	51	68	240	197	123	46	40	31	236
23	26	52	74	52	69	246	155	118	42	40	27	146
24	33	46	60	55	64	230	132	111	50	46	31	99
25	28	40	54	54	65	230	123	241	60	76	111	89
26	27	40	54	54	309	244	120	238	51	51	187	74
27	28	34	74	51	458	276	159	197	41	89	256	61
28	29	37	73	54	712	640	226	155	36	289	331	94
29	28	40	59	50		639	182	151	35	523	287	136
30	27	42	51	40		410	165	287	36	470	182	232
31	33		52	34		410		600		320	114	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October . . . . .					61	20	29.2	0.174	0.20			
November . . . . .					53	28	39.4	.235	.26			
December . . . . .					127	38	59.6	.355	.41			
January . . . . .					120	34	64.8	.386	.45			
February . . . . .					712	40	111	.661	.69			
March . . . . .					1,480	76	401	2.39	2.76			
April . . . . .					1,540	120	374	2.23	2.49			
May . . . . .					700	40	189	1.12	1.29			
June . . . . .					520	35	173	1.03	1.15			
July . . . . .					523	36	119	.708	.82			
August . . . . .					331	27	94.9	.565	.65			
September . . . . .					835	51	249	1.48	1.65			
The year . . . . .					1,540	20	159	.946	12.82			

## Haw River at Haw River, N. C.

Location.- Water-stage recorder 400 feet below Southern Railway bridge at Haw River, Alamance County.

Drainage area.- 592 square miles.

Records available.- October 1928 to September 1934.

Extremes.- Maximum discharge during year, 15,800 second-feet Apr. 9 (gage height, 23.01 feet); minimum, 6 second-feet Oct. 30 (gage height, 1.02 feet); minimum daily discharge, 10 second-feet Oct. 29.

1928-34: Maximum discharge, 17,000 second-feet (revised) Feb. 28, 1929 (gage height, 23.96 feet); minimum, 3 second-feet Sept. 5, 1930; minimum daily discharge, 5 second-feet Sept. 6, 1930.

Remarks.- Daily regulation. Records good except those estimated Apr. 8, 14, 15, 22, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	75	48	169	144	1,520	1,610	202	1,440	401	641	151
2	97	32	23	276	339	1,140	1,140	182	1,540	626	533	130
3	36	84	26	273	332	2,210	870	153	1,990	247	423	118
4	80	34	85	186	239	4,740	715	148	1,410	164	299	148
5	101	22	93	194	220	3,310	659	142	2,710	202	221	124
6	107	83	99	230	183	2,570	606	166	2,640	157	142	270
7	55	90	103	259	196	1,620	554	174	3,270	148	181	1,670
8	36	91	123	279	196	1,040	588	137	1,740	137	490	2,710
9	85	77	134	333	162	772	9,630	123	1,750	780	403	809
10	97	72	113	269	127	623	6,700	140	1,320	2,940	246	569
11	90	24	133	194	90	571	3,230	128	991	2,030	166	498
12	34	12	105	156	149	456	2,120	71	645	1,310	124	498
13	69	83	100	154	146	335	1,320	68	594	655	124	1,220
14	28	88	87	200	158	285	830	132	425	430	111	1,330
15	11	93	84	268	146	262	659	444	387	343	98	1,190
16	55	101	55	184	131	259	1,370	2,460	337	315	107	4,790
17	32	95	75	153	97	219	1,460	1,750	312	246	123	2,350
18	68	38	129	137	117	242	972	1,250	308	142	103	1,610
19	38	25	111	132	137	272	830	753	280	168	88	1,420
20	86	88	112	74	236	459	659	533	212	255	96	953
21	42	90	234	113	234	944	587	387	176	240	104	641
22	19	93	249	151	171	696	498	292	147	175	123	440
23	70	94	203	134	154	659	444	673	263	136	109	352
24	40	91	145	120	144	554	403	399	534	130	109	287
25	75	38	121	134	276	776	334	1,100	262	116	42	316
26	32	32	147	125	3,340	952	272	706	220	199	185	273
27	79	118	126	59	3,530	927	224	447	153	1,010	551	191
28	47	108	162	53	2,040	4,770	216	381	131	400	498	174
29	10	110	137	153		2,290	229	487	137	1,730	400	318
30	62	112	133	168		1,290	221	2,620	58	2,840	287	605
31	38		154	132		1,830		2,940		966	194	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	107	10	56.2	0.093	0.11
November	118	12	73.1	.123	.14
December	249	23	118	.197	.23
January	333	53	176	.297	.34
February	3,530	90	480	.811	.84
March	4,770	219	1,240	2.09	2.41
April	9,630	216	1,330	2.25	2.51
May	2,940	68	632	1.07	1.23
June	3,270	58	876	1.43	1.65
July	2,940	116	634	1.07	1.23
August	641	42	236	.399	.46
September	4,790	118	872	1.47	1.64
The year	9,630	10	559	.944	12.79

## Haw River near Pittsboro, N. C.

Location.- Water-stage recorder about 100 feet above Robinsons Creek, 2 miles below highway bridge on State Highway 90, and 5 miles east of Pittsboro, Chatham County. Zero of gage is 180.06 feet (revised) above mean sea level.

Drainage area.- 1,340 square miles.

Records available.- November 1928 to September 1934.

Extremes.- Maximum discharge during year, 31,200 second-feet Apr. 10 (gage height, 18.38 feet); minimum, 17 second-feet Oct. 1 (gage height, 1.31 feet); minimum daily discharge, 18 second-feet Nov. 13.  
1928-34: Maximum discharge, 47,300 second-feet Oct. 2, 1929 (gage height, 22.1 feet); minimum, 9 second-feet Oct. 13, 1930 (gage height, 1.32 feet); minimum daily discharge, 18 second-feet Sept. 30, 1933, Nov. 13, 1933.  
Flood of August 1908 reached a stage of about 32.1 feet (discharge, estimated, 98,000 second-feet).

Remarks.- Records good except those for Mar. 28 to Apr. 9, which are fair, and those estimated Sept. 24-30, which are poor. Daily regulation.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	23	128	262	200	2,250	4,650	385	3,200	290	1,190	370
2	55	76	139	277	276	1,720	2,640	436	2,310	2,180	866	193
3	104	39	163	343	508	1,430	1,900	426	2,470	1,460	762	194
4	120	44	147	431	662	7,070	1,640	332	2,690	603	578	473
5	114	52	171	391	461	6,120	1,320	356	4,550	397	432	755
6	106	21	100	235	440	4,010	1,320	230	10,600	330	381	569
7	62	114	103	237	398	1,340	1,140	229	7,400	268	414	1,410
8	49	182	131	362	298	1,760	994	317	6,840	200	2,040	9,700
9	36	92	112	501	266	1,320	8,020	327	3,890	570	2,120	2,590
10	118	75	69	431	189	1,050	25,000	280	2,600	1,990	621	1,300
11	110	48	161	506	208	930	6,450	165	2,150	3,400	495	946
12	45	19	298	353	312	842	3,710	213	1,690	2,000	355	766
13	95	18	272	320	254	683	2,470	192	1,490	1,260	306	2,270
14	39	101	173	255	238	542	1,660	226	1,270	758	324	7,610
15	24	145	136	172	268	536	1,320	235	834	626	230	2,710
16	51	100	128	270	269	492	1,890	3,800	706	477	171	11,000
17	134	99	37	337	164	432	4,120	3,760	554	466	135	8,230
18	171	86	217	357	167	318	2,670	2,240	546	381	227	3,490
19	98	26	149	272	278	432	1,760	1,440	974	1,090	232	2,600
20	32	86	188	72	266	702	1,400	1,010	646	354	143	1,950
21	31	146	164	60	227	2,280	1,180	770	522	422	215	1,500
22	26	162	197	242	304	1,660	994	636	377	408	1,090	1,050
23	21	113	153	222	313	1,220	906	480	292	380	982	826
24	76	82	247	237	172	1,050	822	824	778	395	453	706
25	38	46	233	228	204	1,060	651	639	843	271	303	650
26	118	30	216	192	3,820	1,910	650	1,450	497	247	638	682
27	81	150	394	68	6,080	1,590	621	917	369	1,450	830	439
28	27	194	322	38	3,580	9,930	594	642	299	1,180	917	344
29	19	114	239	287		6,040	351	650	410	838	843	696
30	22	67	164	242		2,950	435	1,490	233	5,660	582	1,630
31	80		54	157		3,570		4,930		2,530	499	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					171	19	68.5	0.051		0.06		
November					194	18	85.0	.063		.07		
December					394	37	171	.128		.15		
January					506	38	270	.201		.23		
February					8,080	164	812	.606		.63		
March					9,930	318	2,170	1.62		1.87		
April					25,000	351	2,780	2.07		2.31		
May					4,930	165	969	.723		.83		
June					10,600	233	2,070	1.54		1.72		
July					5,660	200	1,060	.791		.91		
August					2,120	135	632	.472		.54		
September					11,000	193	2,260	1.69		1.89		
The year					25,000	18	1,110	.828		11.21		

## Cape Fear River at Lillington, N. C.

Location.- Water-stage recorder at highway bridge just below Norfolk Southern Railroad bridge at Lillington, Harnett County, and 1 mile below Neill Creek. Zero of gage is 105.71 feet above mean sea level.

Drainage area.- 3,530 square miles.

Records available.- December 1923 to September 1934.

Average discharge.- 10 years (1924-34), 3,080 second-feet.

Extremes.- Maximum discharge during year, 40,000 second-feet Apr. 10 (gage height, 16.45 feet); minimum, 66 second-feet Nov. 13 (gage height, 0.38 foot); minimum daily discharge, 68 second-feet Nov. 13.

1923-34: Maximum discharge, 101,000 second-feet Oct. 2, 1929 (gage height, 27.55 feet); minimum, 8 second-feet Oct. 8, 1926 (gage height, 0.01 foot); minimum daily discharge, 8 second-feet Oct. 8, 1926.

Remarks.- Records good except those estimated Nov. 27 to Jan. 9, which are poor. Large diurnal fluctuation caused by operation of Buckhorn power plant 14 miles above.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	201	80	600	294	4,820	15,700	958	5,820	594	2,470	1,480
2	75	83	80	320	586	3,510	9,180	927	4,050	2,990	1,690	1,120
3	74	78	85	650	834	2,790	4,950	919	4,530	8,240	1,440	662
4	314	86	420	360	831	5,160	3,610	984	5,240	4,140	1,120	518
5	200	106	260	650	1,160	10,300	2,770	741	8,640	2,050	1,150	1,290
6	80	348	95	800	932	8,420	2,390	686	21,700	1,100	854	1,480
7	74	211	85	260	638	5,300	2,430	779	22,200	1,240	903	2,430
8	74	141	85	550	616	3,660	2,230	279	19,900	1,190	1,950	12,200
9	74	93	340	550	596	2,960	5,130	592	9,430	2,170	4,090	11,200
10	322	74	300	616	549	2,130	34,500	866	6,240	1,670	2,090	4,560
11	206	70	110	695	229	1,680	26,200	590	4,490	11,800	1,930	3,240
12	79	69	90	746	620	2,560	11,700	393	3,810	7,050	1,380	1,980
13	74	68	420	618	676	2,120	7,210	209	7,480	3,750	1,110	1,660
14	74	364	300	476	512	1,270	4,640	499	7,520	1,900	758	12,000
15	74	214	550	446	221	1,540	3,060	693	3,130	1,740	833	10,600
16	74	80	300	206	554	1,440	2,810	4,750	1,980	1,270	464	11,700
17	318	70	150	449	566	1,650	7,550	8,600	1,340	1,220	424	21,700
18	214	69	110	570	216	1,360	8,210	6,150	1,450	950	536	14,100
19	83	70	100	243	676	1,260	4,910	4,000	3,390	2,290	698	7,280
20	311	340	500	500	726	1,520	4,650	2,760	2,680	1,840	990	4,980
21	209	202	260	310	568	4,010	4,140	1,940	1,790	1,460	973	3,390
22	82	86	100	90	261	5,040	3,070	1,250	1,510	1,450	662	2,210
23	76	79	440	507	573	3,590	2,460	1,140	1,140	1,170	2,550	2,340
24	85	76	240	314	662	2,920	2,220	1,210	542	1,410	3,330	1,650
25	85	76	95	437	256	2,870	1,720	1,240	1,460	1,300	2,730	1,450
26	79	76	440	517	1,180	3,200	1,530	1,470	1,290	886	1,690	1,300
27	76	360	240	210	11,300	3,650	1,600	1,690	941	836	3,300	1,300
28	75	240	420	90	9,190	11,800	1,170	1,260	766	1,760	3,110	1,380
29	76	90	260	497	18,700	1,220	1,060	732	1,060	2,210	1,510	1,510
30	75	80	110	281	8,760	1,140	1,520	750	5,310	1,830	4,610	4,610
31	311		360	436		6,910		6,070		4,660	1,690	
Month				Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October				322	74	132	0.037	0.04				
November				384	66	141	.040	.04				
December				550	80	239	.063	.08				
January				800	90	458	.130	.15				
February				11,300	216	1,260	.363	.38				
March				18,700	1,250	4,410	1.25	1.44				
April				34,500	1,140	6,140	1.74	1.94				
May				8,600	209	1,810	.513	.59				
June				22,200	542	5,200	1.47	1.64				
July				11,800	594	2,590	.734	.85				
August				4,090	424	1,640	.463	.54				
September				21,700	518	5,150	1.46	1.63				
The year.				34,500	68	2,420	.683	9.32				

## Cape Fear River at Fayetteville, N. C.

Location.- Water-stage recorder at highway bridge just below Cross Creek at Fayetteville, Cumberland County. Zero of gage is 20.23 feet above mean sea level.

Drainage area.- 4,290 square miles.

Records available.- January 1889 to May 1903, September 1928 to September 1934.

Average discharge.- 19 years (1889-1902, 1928-34), 4,680 second-feet.

Extremes.- Maximum discharge during year, 36,700 second-feet Apr. 11; maximum gage height, 35.97 feet Apr. 11; minimum discharge, 180 second-feet Oct. 15, 16 (gage height, 0.73 foot); minimum daily discharge, 184 second-feet Oct. 16.  
1889-1903, 1928-34: Maximum discharge, 110,000 second-feet Oct. 4, 1929 (gage height, 63.43 feet); minimum, 73 second-feet Oct. 6, 1930; minimum daily discharge, 110 second-feet Oct. 5, 1930.  
Maximum discharge known (estimated), 133,000 second-feet Aug. 29, 1908 (gage height, about 68.0 feet).

Remarks.- Records good except those estimated Jan. 30 to Feb. 1, which are fair. Regulation during low-water periods from operation of Buckhorn Shoals power plant. Rate of change in stage used as a factor in the determination of discharge during high stages.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	252	274	318	422	800	6,520	14,900	1,420	6,900	800	3,280	1,770
2	226	404	310	800	900	3,560	12,630	1,270	4,750	3,860	2,560	1,420
3	235	316	304	685	1,220	3,450	7,350	1,220	4,450	10,000	1,920	1,120
4	234	272	294	826	1,170	3,270	5,300	1,170	5,230	7,890	1,870	660
5	298	241	475	720	1,420	9,290	3,780	1,080	7,650	4,320	1,170	780
6	392	247	580	780	1,520	10,200	3,340	860	17,000	2,700	1,220	1,320
7	286	410	428	840	1,270	6,920	2,980	880	23,700	1,920	980	1,570
8	230	492	386	615	1,040	4,780	2,680	880	25,700	1,470	1,270	12,200
9	204	375	340	740	940	3,460	2,680	528	14,200	2,170	4,530	14,200
10	202	332	320	840	840	3,160	24,800	632	9,800	3,800	3,820	5,920
11	276	294	458	900	740	2,740	26,900	860	7,000	5,160	3,600	4,350
12	372	240	389	960	650	3,160	14,200	615	5,210	10,400	3,350	2,740
13	270	241	386	960	1,080	3,280	10,800	434	5,480	7,360	2,740	2,170
14	224	310	545	840	1,220	2,740	7,320	375	9,650	4,300	2,070	7,380
15	192	510	615	702	1,080	2,380	4,580	528	4,390	2,590	1,670	12,800
16	184	562	545	740	860	2,680	3,450	1,250	2,540	2,500	1,620	8,740
17	202	396	492	598	900	2,620	6,490	3,980	1,970	1,770	1,040	21,100
18	276	320	352	632	840	2,500	10,100	7,200	1,520	1,520	880	17,400
19	386	270	360	720	632	2,020	7,080	5,220	3,200	1,320	940	10,500
20	290	260	362	562	1,170	2,320	6,000	3,300	3,400	2,440	1,040	7,400
21	284	410	615	536	1,520	3,840	5,400	2,560	2,500	2,170	1,420	5,020
22	348	528	668	562	1,220	5,290	4,300	2,020	2,120	1,770	1,270	3,550
23	254	389	475	492	940	5,020	3,200	1,420	1,720	2,120	1,220	2,560
24	244	355	510	740	1,000	4,000	3,040	1,370	1,720	2,920	3,160	2,320
25	264	320	528	702	940	3,600	2,740	1,220	1,720	2,620	3,220	1,470
26	270	274	365	800	702	3,470	2,120	1,220	1,970	2,120	2,320	1,720
27	274	256	510	880	6,630	4,500	2,070	1,320	1,520	1,520	3,040	1,570
28	252	413	562	720	10,800	7,740	1,820	1,470	1,120	1,420	3,680	1,520
29	234	528	562	475		19,900	1,420	1,420	920	1,870	3,040	1,770
30	212	380	545	702		12,100	1,570	1,570	800	2,830	2,440	2,930
31	240		355	650		7,950		3,710		6,150	2,070	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October					392	184	261	0.061	0.07			
November					562	240	354	.083	.09			
December					668	294	450	.105	.12			
January					960	422	717	.167	.19			
February					10,800	632	1,570	.366	.38			
March					19,900	2,020	5,140	1.20	1.36			
April					26,900	1,420	6,830	1.59	1.77			
May					8,960	375	1,890	.441	.51			
June					25,700	800	6,000	1.40	1.56			
July					10,400	800	3,410	.795	.92			
August					4,530	860	2,200	.513	.59			
September					21,100	780	5,350	1.25	1.40			
The year					26,900	184	2,840	.662	8.98			

## Reedy Fork near Gibsonville, N. C.

Location.- Water-stage recorder a quarter of a mile below Huffines Mill,  $1\frac{1}{4}$  miles above Buffalo Creek, and 6 miles northwest of Gibsonville, Guilford County.

Drainage area.- 133 square miles.

Records available.- September 1928 to September 1934.

Extremes.- Maximum discharge during year, 2,410 second-feet July 10 (gage height, 8.55 feet); minimum, 2.6 second-feet Oct. 14 (gage height, 0.53 foot); minimum daily discharge, 5.8 second-feet Oct. 29.  
1928-34: Maximum discharge, 4,090 second-feet Oct. 3, 1929 (gage height, 12.65 feet); minimum, 0.8 second-foot Aug. 27, 1932 (gage height, 0.35 foot); minimum daily discharge, 1.8 second-feet Aug. 24, 1930.

Remarks.- Records good except those estimated Apr. 8, 9, 15, 21, 22, 24, 25, May 16, 17, July 10, 11, Aug. 1-9, which are poor. Flow regulated at low stages by storage for Greensboro water supply, which is diverted at confluence of Horsepen Creek and Reedy Fork, 14 miles upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.2	19.0	17.4	62	28	549	320	34	268	19.2	150	19.8
2	20	16.8	23	119	56	334	252	38	429	43	110	20
3	34	13.4	11.4	47	42	481	232	30	314	37	80	21
4	22	16.6	19.4	30	31	750	215	32	240	29	50	22
5	17.6	11.0	21	32	28	696	208	28	415	41	30	22
6	15.2	24	22	35	28	690	198	27	381	27	24	42
7	20	29	24	42	22	410	95	27	424	19.6	30	103
8	8.0	24	33	53	23	270	80	24	296	25	55	68
9	16.6	16.7	26	99	21	213	339	23	230	183	65	49
10	17.2	22	22	43	16.6	191	605	22	360	1,310	34	98
11	15.9	17.6	20	31	19.0	177	1,190	21	312	874	28	149
12	13.2	13.6	21	27	26	92	575	22	204	560	28	144
13	19.2	23	15.8	35	29	48	325	22	186	301	26	119
14	16.7	29	26	98	27	40	244	21	151	208	21	62
15	25	28	19.8	111	24	36	196	122	134	182	19.2	188
16	15.8	23	14.4	39	23	34	270	373	130	162	15.4	404
17	19.6	19.9	19.8	28	22	40	220	147	59	22	390	22
18	17.8	24	23	24	21	103	230	213	153	31	18.0	401
19	23	14.0	17.8	23	71	71	215	189	63	27	17.0	404
20	17.9	23	38	19.8	132	77	213	165	34	28	18.0	262
21	17.8	18.5	56	22	49	107	203	84	27	31	20	109
22	10.0	21	96	22	35	158	162	95	24	26	13.9	79
23	15.8	23	51	22	35	186	121	80	24	23	18.0	67
24	24	22	31	22	29	101	80	53	30	25	18.3	67
25	18.2	19.2	27	20	38	108	73	74	27	19.2	53	121
26	23	19.8	27	22	499	177	51	66	23	58	146	58
27	11.4	19.6	33	23	578	233	72	112	18.0	195	164	35
28	22	24	28	23	648	508	103	56	20	74	66	27
29	5.8	15.1	38	111		347	56	89	19.6	315	28	72
30	13.4	22	64	58		250	38	287	15.8	384	24	101
31	29		38	21		325		260		277	26	
Month	Maximum		Minimum		Mean		Per square mile		Run-off in inches			
October	34		5.8		17.8		0.134		0.15			
November	29		11.0		20.4		.153		.17			
December	96		11.4		30.4		.229		.26			
January	119		19.8		44.0		.331		.38			
February	648		18.6		93.0		.699		.38			
March	750		34		252		1.89		2.18			
April	1,190		38		240		1.80		2.01			
May	373		21		96.2		.723		.83			
June	429		15.8		170		1.28		1.43			
July	1,310		19.2		151		1.36		1.37			
August	164		15.9		45.7		.344		.40			
September	404		19.8		123		.925		1.03			
The year	1,310		5.8		109		.820		11.14			



## Buffalo Creek near Greensboro, N. C.

Location.— Water-stage recorder at McConnell road crossing 3 miles east of Greensboro, Guilford County, and 6 miles above confluence with North Buffalo Creek.

Drainage area.— 32.8 square miles.

Records available.— August 1928 to September 1934.

Extremes.— Maximum discharge during year, 840 second-feet Feb. 26 (gage height, 7.36 feet); minimum, 1.3 second-feet during October.

1928-34: Maximum discharge, 1,870 second-feet (revised) Feb. 28, 1929 (gage height, 8.74 feet); minimum, 0.2 second-foot Oct. 2, 1930.

Remarks.— Records fair above 10 second-feet, poor below and for estimated periods, Oct. 1 to Nov. 15, Feb. 28, Apr. 22 to May 8. Sewage from Greensboro enters just above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	4	4.5	9.4	22.5	53	186	12	68	6.0	9.2	3.1
2	14	4	5.0	23	54	49	90	12	53	12.3	9.2	2.8
3	9	4	5.1	9.2	16.4	193	38	12	173	11.9	7.4	2.6
4	7	3	7.2	6.2	10.0	491	24	11	188	25	5.8	3.0
5	4	3	7.4	19.8	8.1	242	23	11	350	11.2	5.0	6.4
6	4	5	6.0	25	7.0	124	19.5	9	421	8.3	4.8	10.0
7	3	10	14.6	22	6.1	52	15.3	8	285	7.0	42	40
8	3	8	10.2	32	5.8	32	13.0	7	662	16.5	98	14.8
9	2	7	6.1	17.2	5.4	26	222	5.5	310	107	16.6	14.6
10	3	5	4.6	10.4	4.1	20	247	5.2	141	350	8.8	6.4
11	3	4	4.6	8.1	4.2	18.0	178	5.0	64	256	6.7	4.5
12	3	4	4.6	7.2	7.9	14.4	72	5.2	34	51	5.4	52
13	3	4	4.1	11.7	10.6	12.8	38	4.1	21	24	5.0	397
14	2	13	3.9	10.2	6.8	12.8	27	4.3	13.7	15.6	5.0	261
15	2	14	4.0	8.1	5.8	11.2	21	58	9.6	11.5	4.7	80
16	2	3	4.3	6.7	5.5	7.9	103	206	7.2	9.0	7.5	365
17	4	3.2	4.6	6.6	4.8	6.8	165	110	6.0	8.3	22	258
18	9	3.4	4.8	9.4	4.5	6.6	77	30	28	29	8.6	78
19	5	3.8	5.0	6.0	9.0	6.6	46	16.1	19.8	139	5.8	39
20	4	4.1	28	5.8	18.6	53	37	11.5	6.8	97	5.5	28
21	3	4.2	17.2	5.4	8.4	90	28	9.0	4.2	22	4.7	19.2
22	3	5.8	6.6	5.5	7.2	29	22	7.9	4.0	10.6	3.9	13.7
23	3	7.2	5.0	5.6	6.1	9.2	18	72	9.8	8.6	4.3	11.9
24	3	5.6	4.0	5.8	6.2	7.7	14	34	22	8.3	5.6	7.9
25	4	4.6	3.7	5.4	28	45	13	19.2	8.1	8.3	5.0	8.1
26	3	4.1	6.8	5.5	512	56	13	15.1	6.2	7.2	11.0	9.2
27	3	4.3	11.2	5.8	432	50	13	9.6	6.1	14.4	12.3	7.5
28	3	5.2	6.4	6.4	127	276	13	8.8	8.4	8.8	6.1	7.4
29	3	5.1	5.0	6.1		181	12	66	10.9	25	4.5	108
30	3	5.0	4.3	5.4		71	12	137	6.8	63	3.7	97
31	4		4.2	4.7		147		144		17.7	3.7	
Month				Maximum			Minimum		Mean		Per square mile	Run-off in inches
October				14			2		4.03		0.123	0.14
November				7.2			3		5.35		.163	.18
December				28			3.7		6.87		.209	.24
January				32			4.7		10.1		.308	.36
February				512			4.1		48.1		1.47	1.53
March				491			6.6		77.2		2.35	2.71
April				247			12		60.7		1.85	2.06
May				206			4.1		34.4		1.03	1.21
June				662			4.0		98.3		3.00	3.35
July				350			6.0		44.8		1.37	1.58
August				98			3.7		11.2		.341	.39
September				397			2.6		65.2		1.99	2.22
The year.				662			2		38.6		1.18	15.97



## North Buffalo Creek near Greensboro, N. C.

Location.- Water-stage recorder at county highway bridge 3 miles above junction with Buffalo Creek and 6 miles northwest of Greensboro, Guilford County.

Drainage area.- 36.4 square miles.

Records available.- August 1928 to September 1934.

Extremes.- Maximum discharge during year, 1,070 second-feet Feb. 26 (gage height, 7.90 feet); minimum, 3.8 second-feet Oct. 15.  
1928-34: Maximum discharge, 1,650 second-feet Oct. 17, 1932 (gage height, 10.98 feet); minimum, 1.6 second-feet Aug. 28, 1932.

Remarks.- Records good except those estimated Apr. 15, 22, 23, which are fair. Sewage from Greensboro and Proximity Mills enters above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.3	10.3	7.4	30	29	32	66	16.0	58	11.1	19.2	9.6
2	27	10.6	7.1	24	56	35	41	16.6	48	13.7	19.2	6.4
3	10.9	10.3	6.9	17.6	22	349	35	17.1	46	17.7	15.4	7.8
4	9.8	8.1	10.0	16.1	14.2	452	31	16.6	130	30	11.5	11.1
5	9.2	6.9	10.9	35	13.2	92	30	13.7	460	12.0	9.2	16.6
6	8.9	16.1	11.6	26	14.9	50	26	12.0	160	13.1	10.1	18.4
7	7.1	10.9	31	26	14.9	36	24	12.6	184	10.1	139	55
8	5.4	10.0	13.8	39	14.9	32	20	14.3	232	82	61	33
9	6.9	9.8	10.6	22	13.8	29	683	13.7	58	263	17.7	10.6
10	9.2	9.5	8.1	18.5	11.2	24	330	14.3	35	503	13.7	10.6
11	9.2	8.4	8.9	16.8	10.3	21	61	13.7	29	72	12.0	13.1
12	9.2	6.9	11.6	16.1	17.4	19.4	43	11.1	34	31	10.6	77
13	9.2	15.1	12.2	19.8	18.6	20	35	9.6	24	19.9	11.1	291
14	7.6	26	12.2	13.2	14.6	19.8	28	10.6	19.2	15.4	13.7	50
15	5.2	14.6	12.2	13.5	15.7	19.8	26	163	14.8	12.0	13.7	86
16	6.5	12.2	10.6	14.9	14.6	18.9	207	202	13.7	13.1	13.1	444
17	15.3	10.0	8.9	14.9	12.5	18.5	55	37	11.1	18.4	34	63
18	10.9	9.2	9.2	14.6	10.0	13.8	38	25	28	49	11.5	32
19	8.9	8.1	12.2	13.8	25	15.3	32	17.7	21	85	9.6	34
20	8.4	8.9	56	11.2	32	111	27	13.7	16.6	62	10.6	26
21	7.1	10.9	19.4	10.6	18.9	65	36	14.3	14.8	16.6	13.1	21
22	6.0	16.8	13.8	9.5	18.9	35	26	40	12.0	12.6	13.1	16.6
23	7.4	12.2	10.6	12.8	21	29	24	117	64	12.6	16.0	13.7
24	10.6	10.9	9.5	13.2	15.3	29	29	86	28	15.4	12.6	14.8
25	10.3	9.5	8.6	14.6	61	74	26	27	13.1	14.8	11.1	17.1
26	9.8	9.2	18.9	13.8	895	50	18.4	16.6	15.4	33	27	16.6
27	10	8.1	13.2	13.2	242	148	18.4	14.3	13.7	26	16.0	16.0
28	8.4	10.9	9.8	10.0	41	497	16.0	14.3	18.4	14.9	14.3	16.0
29	6.5	10.6	9.2	8.9		65	13.1	125	12.6	118	13.7	190
30	8.4	8.9	9.2	11.6		43	14.8	144	9.6	110	13.1	38
31	10.6		9.8	11.6		291		70		25	12.0	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	27			5.2			9.23			0.254	0.29	
November	26			6.9			11.0			.302	.34	
December	56			6.9			13.0			.357	.41	
January	39			9.9			17.2			.473	.55	
February	895			10.0			60.3			1.66	1.73	
March	497			13.8			88.2			2.42	2.79	
April	683			13.1			68.7			1.89	2.11	
May	202			9.6			40.6			1.12	1.29	
June	460			9.6			60.8			1.67	1.86	
July	503			10.1			55.9			1.54	1.78	
August	139			9.2			19.9			.547	.63	
September	444			6.4			55.2			1.52	1.70	
The year.	895			5.2			41.4			1.14	15.48	

## West Fork of Deep River near High Point, N. C.

Location.- Water-stage recorder a quarter of a mile above State highway bridge at head of High Point Reservoir, 1½ miles northwest of Jamestown, and 3½ miles northeast of High Point, Guilford County.

Drainage area.- 33 square miles.

Records available.- June 1923 to September 1926, July 1928 to September 1934.

Extremes.- Maximum discharge during year, 1,050 second-feet Feb. 26 (gage height, 10.73 feet); minimum, 2.3 second-feet several times in October (gage height, 1.90 feet). 1923-26, 1928-34: Maximum discharge, 1,740 second-feet Oct. 17, 1932; minimum, 0.3 second-foot Sept. 1, 1932.

Remarks.- Records good except those for periods of ice effect, Feb. 1, 10, 21, and those estimated May 23, July 27, which are fair. Flow slightly regulated by gristmill 4 miles above.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	4.2	6.3	18	23	32	65	11	16	5.6	15.1	5.7
2	4.5	4.3	6.7	14	18	33	35	10	13	6.9	12.5	5.2
3	3.8	4.5	7.2	9.4	11	380	27	11	11	68	10.2	5.2
4	3.3	5.6	8.5	8.9	9.6	410	22	10	14	13	8.6	5.2
5	3.3	4.3	8.0	12	8.9	97	22	9.8	65	6.3	9.1	6.6
6	3.3	7.8	6.9	16	9.2	44	19	9.4	76	6.1	7.4	13.2
7	3.2	5.2	15	23	8.0	31	18	9.2	57	4.4	6.8	118
8	3.2	5.7	8.7	25	8.9	26	17	8.9	195	88	9.6	17.2
9	3.0	4.1	7.6	14	6.9	22	525	8.3	28	354	8.4	10.2
10	3.2	5.0	7.2	11	8.0	19	251	8.3	20	357	7.1	10.2
11	3.3	5.2	7.2	9.6	16	17	53	8.5	17	42	7.1	7.8
12	3.4	5.2	7.6	10	15	15	33	7.8	14	20	6.2	55
13	3.2	7.4	6.9	13	12	14	25	7.6	14	16	8.0	120
14	3.0	8.7	8.9	10	11	13	21	8.5	12	13	6.5	26
15	3.2	6.3	6.9	9.4	10	12	18	42	11	12	6.0	69
16	3.6	5.2	7.2	9.2	9.4	12	132	81	9.5	12	9.1	661
17	5.9	6.1	7.2	9.2	8.5	12	41	19	8.8	10	13.4	78
18	5.0	6.3	6.9	8.9	9.8	12	27	15	9.1	9.6	7.6	29
19	4.0	6.3	7.8	8.9	25	12	23	12	8.0	9.4	7.6	39
20	3.7	6.9	27	8.7	15	50	21	11	7.1	12	6.4	24
21	4.0	5.9	12	8.3	10	26	18	9.8	6.3	8.3	5.2	18.2
22	3.8	8.5	8.7	8.0	12	18	16	12	6.1	8.0	5.7	15.5
23	4.1	7.4	7.8	8.3	13	16	16	9.1	5.8	7.3	6.0	13.5
24	4.5	6.3	7.6	8.0	10	18	15	8.0	6.1	7.4	6.2	11.6
25	4.5	6.1	7.8	8.0	96	52	14	8.5	5.6	7.4	9.5	11.6
26	4.5	6.5	10	8.3	696	33	14	8.0	5.8	6.9	28	11.0
27	4.1	6.3	9.4	8.0	193	116	12	8.3	4.9	21	13	10.2
28	5.7	6.1	8.0	8.0	46	162	11	8.3	5.8	11.0	7.6	9.4
29	4.8	5.9	7.8	8.0		47	11	45	6.3	77	7.1	161
30	3.7	6.1	8.7	9.2		29	11	146	5.4	160	6.8	40
31	5.0		8.0	11		326		27		23	7.6	
Month	Maximum					Minimum			Mean		Per square mile	Run-off in inches
October	5.9					3.0			3.90		0.118	0.14
November	8.7					4.1			5.98		.181	.20
December	27					6.3			8.69		.233	.30
January	25					8.0			11.0		.333	.38
February	696					6.9			47.2		1.43	1.49
March	410					12			67.9		2.03	2.38
April	525					11			51.1		1.65	1.73
May	146					7.6			19.3		.535	.67
June	195					4.9			22.1		.670	.75
July	357					4.4			45.2		1.37	1.58
August	28					5.2			8.79		.236	.31
September	661					5.2			53.6		1.63	1.81
The year.	696					3.0			28.5		.834	11.74

## Deep River near Randleman, N. C.

Location.— Water-stage recorder 500 feet below county bridge at Coltrane's mill, half a mile south of Guilford County line, and 7 miles north of Randleman, Randolph County. Zero of gage is 636.11 feet above mean sea level.

Drainage area.— 124 square miles.

Records available.— October 1928 to September 1934.

Extremes.— Maximum discharge during year, 3,670 second-feet Apr. 9 (gage height, 16.62 feet); minimum, 1.0 second-foot Nov. 13 (gage height, 1.43 feet); minimum daily discharge, 1.2 second-foot Nov. 12.  
1928-34: Maximum discharge, 5,790 second-feet Feb. 28, 1929 (gage height, 23.9 feet); minimum, 0.5 second-foot Nov. 28, 1931 (gage height, 1.41 feet); minimum daily discharge, that of Nov. 12, 1933.

Remarks.— Records good except those estimated Dec. 28 to Jan. 12, June 15-18, which are fair. Daily gage readings used Aug. 6-17. Flow regulated by Coltrane's mill and by storage in High Point Reservoir.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1	13.6	9.4	30	53	161	360	33	113	25	38	9.5
2	20	5.3	14.9	60	77	109	186	56	227	163	74	9.4
3	15.7	13.9	3.7	40	29	1,150	152	55	218	37	39	13.4
4	5.1	7.3	19.4	30	18.0	1,400	104	29	293	51	37	13.8
5	4.9	9.9	8.1	25	25	442	125	31	1,060	63	52	18.6
6	5.0	5.7	15.1	20	15.5	225	94	18.7	720	25	34	17.8
7	7.9	16.0	21	15	19.9	154	82	48	997	25	25	142
8	4.5	9.6	25	85	13.5	99	77	27	1,420	11.9	17.0	114
9	5.4	8.6	22	75	14.3	98	1,920	27	300	527	14.4	37
10	5.6	6.6	4.8	55	14.9	84	1,270	20	156	725	7.4	50
11	3.9	9.5	13.8	45	16.4	64	297	25	134	185	12.8	15.0
12	3.9	1.2	20	35	19.0	79	152	24	56	107	57	9.6
13	4.9	6.3	10.9	25	28	64	135	16.1	84	65	44	675
14	6.3	20	14.2	22	20	38	87	23	97	25	25	188
15	2.1	10.6	6.8	55	17.6	65	92	183	75	21	13.4	202
16	4.9	8.5	24	24	12.7	55	477	465	40	57	10.6	1,500
17	8.8	8.5	3.5	34	8.3	33	273	157	15	65	8.5	460
18	5.6	13.8	12.1	21	13.5	29	168	77	50	65	11.8	161
19	13.4	2.7	25	22	32	66	128	41	73	75	11.2	127
20	5.0	7.4	46	120	91	140	109	30	64	65	8.4	121
21	7.5	5.6	30	120	25	180	67	62	37	28	9.6	114
22	2.5	11.2	14.2	114	40	83	74	32	10.4	15.8	11.8	43
23	3.8	12.8	18.6	25	42	86	105	96	11.2	7.4	7.6	18.2
24	9.3	12.1	7.4	10.3	46	72	52	37	33	16.8	9.0	19.4
25	3.1	11.1	12.5	15.1	121	141	69	53	8.8	18.9	9.0	23
26	7.8	4.0	28	24	2,560	170	64	32	18.6	21	9.8	17.6
27	35	5.6	22	18.6	858	379	33	15.6	8.7	27	25	14.4
28	50	11.3	25	9.3	216	1,160	33	34	18.4	11.4	9.8	44
29	14.1	16.1	20	11.1	278	28	73	19.5	8.4	22	112	167
30	20	13.2	15	7.4	180	67	484	9.5	184	175	7.7	167
31	5.9	10	8.6	1,120	250				116	12.8		
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				50	2.1	9.55	0.077		0.09			
November				20	1.2	9.63	.075		.09			
December				46	3.5	16.9	.136		.16			
January				120	7.4	38.9	.314		.36			
February				2,560	8.3	159	1.28		1.33			
March				1,400	29	271	2.19		2.53			
April				1,920	28	230	1.85		2.06			
May				484	15.6	61.8	.660		.76			
June				1,420	8.7	212	1.71		1.91			
July				729	7.4	91.6	.739		.85			
August				74	7.4	21.7	.175		.20			
September				1,500	9.4	151	1.22		1.36			
The year				2,560	1.2	107	.863		11.70			

## Deep River at Ramseur, N. C.

Location.— Water-stage recorder 2,000 feet below railroad station at Ramseur, Randolph County, and  $1\frac{1}{2}$  miles below mouth of Sandy Creek. Zero of gage is 419.50 feet above mean sea level.

Drainage area.— 343 square miles.

Records available.— November 1922 to September 1934.

Average discharge.— 11 years (1923-34), 340 second-feet.

Extremes.— Maximum discharge during year, 15,800 second-feet Sept. 14 (gage height, 20.3 feet, from flood marks); minimum, 8 second-feet Dec. 21 (gage height, C.28 foot); minimum daily discharge, 8 second-feet Nov. 16, 17, 19, 23, 24, Dec. 17.  
1922-34: Maximum discharge (estimated), 21,100 second-feet Sept. 19, 1928 (gage height, 25.44 feet); minimum, 6 second-feet several times in October and November 1931; minimum daily discharge, 6 second-feet Oct. 20-22, 1931.

Remarks.— Records good except those partly estimated Oct. 7-11, Nov. 16-23, which are fair, and those estimated Oct. 12 to Nov. 15, Dec. 30 to Jan. 8, Jan. 31 to Feb. 2, Feb. 10 to Mar. 10, Aug. 1 to Sept. 15, which are poor. Marked regulation, owing to operation of power plants. Considerable storage at High Point Reservoir.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	30	30	60	150	400	1,020	92	577	224	140	48
2	175	28	16	80	406	300	514	112	390	1,360	90	40
3	145	24	12	100	130	900	341	72	737	312	120	65
4	75	30	22	70	80	2,000	282	83	819	196	100	140
5	37	14	23	60	121	2,500	244	72	3,480	120	60	220
6	65	20	30	60	99	900	231	65	2,570	106	90	180
7	16	28	26	70	71	600	179	107	3,200	91	70	1,300
8	16	24	29	100	49	450	161	106	1,840	77	60	500
9	49	24	25	177	35	270	3,380	86	668	426	90	240
10	34	20	44	191	40	167	4,470	109	392	1,050	70	120
11	36	30	85	119	46	133	642	42	289	1,250	65	75
12	26	12	50	87	65	154	495	19	206	242	60	600
13	24	20	40	49	95	150	331	19	192	173	110	2,400
14	22	24	27	46	65	132	238	63	171	102	100	8,000
15	14	16	22	40	55	102	201	325	174	84	75	1,000
16	22	8	11	123	48	110	1,190	1,550	143	122	50	5,000
17	26	8	8	70	28	58	859	519	67	104	45	1,520
18	24	16	56	81	50	65	417	262	131	68	55	656
19	26	8	61	64	120	125	302	154	103	97	90	377
20	22	23	39	41	270	281	262	100	109	138	220	288
21	24	21	40	20	70	549	232	142	88	97	198	245
22	12	21	66	91	80	284	190	116	75	82	120	190
23	26	8	57	152	100	179	174	75	89	115	1,000	124
24	28	8	26	146	120	150	183	122	90	84	300	166
25	24	12	28	86	600	281	133	93	113	62	200	137
26	28	9	42	59	3,000	437	138	47	109	63	500	114
27	36	12	72	52	1,800	856	102	72	109	260	300	95
28	50	48	83	10	600	4,280	172	120	103	95	108	90
29	36	22	53	10		864	49	121	91	63	250	4,090
30	24	23	50	83		467	101	765	16	171	120	228
31	24		40	60		2,690		750		228	80	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	175	12	38.5	0.112	0.13
November	48	8	19.7	.037	.06
December	85	8	39.1	.114	.13
January	191	10	79.5	.231	.27
February	3,000	28	300	.875	.91
March	4,280	58	679	1.98	2.28
April	4,470	49	581	1.69	1.69
May	1,550	19	205	.598	.69
June	3,480	16	578	1.69	1.89
July	1,360	62	247	.720	.83
August	1,000	45	159	.464	.53
September	6,000	40	875	2.56	2.84
The year	6,000	8	315	.978	12.45

## Deep River at Moncure, N. C.

Location.- Water-stage recorder  $1\frac{1}{2}$  miles northwest of Moncure, Chatham County. Zero of gage is 185.88 feet above mean sea level.

Drainage area.- 1,340 square miles.

Records available.- May 1898 to December 1899, July 1930 to September 1934.

Extremes.- Maximum discharge during year, 17,200 second-feet Sept. 8 (gage height, 7.86 feet); minimum, 13 second-feet Dec. 5 (gage height, 0.46 foot); minimum daily discharge, 13 second-feet Dec. 5.

1898-99, 1930-34: Maximum discharge, 24,600 second-feet Feb. 8, 1899; minimum, that of Dec. 5, 1933; minimum daily discharge, that of Dec. 5, 1933.

Remarks.- Records good except those for Oct. 2 to Nov. 16, which are fair, and those for estimated periods, Apr. 30 to June 25, Sept. 12-30, which are poor. Flow regulated by power plants upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	96	28	122	66	1,330	11,000	340	2,200	190	311	286
2	372	66	21	119	245	830	4,260	120	2,200	2,870	386	218
3	305	54	17	101	200	515	1,850	140	2,400	5,860	287	101
4	286	50	14	101	438	653	1,220	140	2,600	1,900	415	670
5	256	44	13	101	438	4,940	951	140	6,000	800	200	973
6	213	49	14	99	142	3,000	810	100	12,000	640	172	694
7	305	49	36	142	204	1,460	780	75	5,000	531	213	3,140
8	372	50	42	99	216	951	658	170	6,000	286	524	12,600
9	208	54	40	180	182	770	3,430	170	4,600	131	1,030	4,870
10	146	56	39	142	182	452	12,000	140	2,800	351	640	1,890
11	190	54	39	317	84	614	9,590	170	1,800	3,830	415	685
12	135	48	38	190	119	460	2,670	100	1,400	4,430	344	480
13	87	42	40	256	229	415	1,480	70	1,200	1,350	218	320
14	60	42	40	122	91	400	1,050	260	1,200	676	240	260
15	50	52	36	71	71	468	820	240	950	430	153	3,200
16	49	50	30	161	200	515	1,300	3,000	850	438	150	13,000
17	125	52	24	119	142	555	4,050	5,500	500	545	177	12,000
18	82	41	20	122	172	372	3,400	1,900	260	341	245	5,500
19	60	64	16	131	195	330	1,630	1,000	600	2,020	979	1,100
20	66	46	30	77	190	554	1,510	600	500	697	612	700
21	52	31	58	60	161	2,460	1,420	400	440	554	286	600
22	40	25	38	82	122	2,050	1,040	360	360	256	358	500
23	38	21	29	200	182	1,190	907	300	480	236	1,690	440
24	107	25	25	89	172	984	598	240	260	232	2,130	300
25	101	64	21	164	142	1,010	491	300	100	377	1,090	240
26	64	56	24	204	688	1,180	523	240	240	240	1,020	300
27	50	34	84	91	4,930	1,390	468	190	256	345	1,460	220
28	46	23	79	71	3,780	6,380	468	220	213	298	830	220
29	44	36	50	119		9,980	438	500	330	415	564	6,500
30	44	41	46	153		3,390	200	1,400	267	974	523	2,400
31	64		161	82		4,630		3,600		554	317	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	372	38	132	0.098	0.11
November	96	21	47.2	.035	.04
December	161	13	38.5	.029	.03
January	517	60	130	.097	.11
February	4,930	66	499	.372	.39
March	9,980	330	1,750	1.31	1.51
April	12,000	200	2,370	1.77	1.98
May	5,500	70	714	.533	.61
June	12,000	100	1,930	1.44	1.61
July	5,860	131	1,050	.764	.90
August	2,130	160	579	.432	.50
September	13,000	101	2,480	1.85	2.06
The year.	13,000	13	972	.725	9.85

## East Fork of Deep River near High Point, N. C.

Location.- Water-stage recorder at county highway bridge a quarter of a mile above High Point Reservoir and 6 miles northeast of High Point, Guilford County.

Drainage area.- 13.9 square miles.

Records available.- July 1928 to September 1934.

Extremes.- Maximum discharge during year, about 1,660 second-feet June 8 (gage height, 7.5 feet); minimum, 1.6 second-feet Feb. 9 (gage height, 0.14 foot).  
1928-34: Maximum discharge, that of June 8, 1934; minimum, 1.3 second-feet Dec. 17, 1930 (gage height, 0.13 foot).

Remarks.- Records fair except those estimated June 14-16, July 11-14, and those for extremely low and high discharges, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	2.8	2.9	8.3	12	11	23	6.1	8.9	6.2	4.6	2.8
2	3.1	2.8	2.9	5.4	7.8	16	14	6.1	7.2	7.4	4.3	2.8
3	2.8	2.9	3.1	4.7	5.9	206	11	5.9	10	13	3.9	2.8
4	2.8	2.8	3.1	4.5	5.0	92	9.4	5.4	10	5.0	3.5	3.0
5	2.7	3.1	2.9	6.1	4.8	31	9.4	5.4	101	4.1	3.4	3.5
6	2.7	3.6	3.2	8.6	4.7	17	8.6	5.2	61	3.9	3.2	8.3
7	2.7	3.1	4.5	13	4.7	11	8.3	5.0	31	3.7	3.2	103
8	2.6	3.1	3.3	10	4.7	10	7.5	4.8	248	133	3.4	8.3
9	2.5	2.9	3.2	6.3	3.6	8.6	222	4.8	22	66	3.5	5.3
10	2.6	2.9	3.1	5.4	4.3	8.0	42	4.8	14	35	3.7	4.6
11	2.5	3.1	3.1	5.0	4.7	7.5	20	4.8	11	12	3.4	4.1
12	2.6	2.9	3.1	5.2	5.7	6.5	14	4.7	9.2	10	3.0	69
13	2.6	4.0	3.2	5.7	4.8	6.3	11	4.7	7.1	8	3.0	65
14	2.6	3.3	3.2	5.0	4.5	6.1	9.7	4.7	6.0	5.8	3.0	10
15	2.6	2.8	3.1	4.7	4.7	5.7	8.9	4.6	6	5.0	2.8	129
16	2.7	2.9	3.2	4.7	4.5	5.7	62	16	5.6	4.8	6.8	289
17	3.3	2.8	3.2	4.5	4.5	5.4	18	6.8	5.6	4.6	4.6	27
18	2.8	2.7	3.1	4.3	4.5	5.2	14	5.7	6.3	5.0	3.5	14
19	2.8	2.8	3.5	4.3	9.7	5.4	12	4.8	5.8	5.6	3.2	26
20	2.8	2.9	10	4.3	6.3	28	10	4.3	5.0	5.6	3.0	11
21	2.8	2.8	4.7	4.3	5.2	17	9.2	4.3	4.8	4.1	2.6	8.6
22	2.6	3.2	4.2	4.5	5.4	9.2	8.6	6.1	4.3	4.1	3.0	8.0
23	2.8	3.1	4.0	4.5	5.7	8.3	7.8	5.2	4.3	4.1	3.4	6.6
24	2.8	3.1	4.0	4.3	5.0	11	7.5	4.2	4.6	4.8	3.0	6.3
25	2.7	3.1	3.8	4.3	99	24	7.0	4.3	4.1	4.1	11	6.0
26	2.7	3.1	5.0	4.3	702	15	6.9	4.0	3.9	6.0	9.8	6.0
27	2.8	2.9	4.3	4.2	38	64	6.8	4.0	3.9	4.6	3.9	5.8
28	2.8	3.1	4.0	4.2	13	39	6.5	4.0	3.7	11	3.4	5.6
29	2.8	3.1	4.0	3.3	17	17	6.5	53	3.7	65	3.2	75
30	2.8	3.1	3.6	3.3	14	14	6.3	64	3.5	18	3.2	12
31	2.8		4.0	3.8		118		14		5.8	3.2	
Month	Maximum					Minimum		Mean		Per square mile		Run-off in inches
October	3.3					2.5		2.75		0.198		0.23
November	4.0					2.7		3.03		.218		.24
December	10					2.9		3.76		.271		.31
January	13					3.3		5.32		.383		.44
February	702					3.6		35.2		2.53		2.64
March	206					5.2		26.7		1.92		2.21
April	222					6.3		20.3		1.46		1.63
May	64					4.0		10.4		.748		.86
June	248					3.5		20.7		1.49		1.66
July	133					3.7		15.3		1.10		1.27
August	11					2.6		3.96		.285		.33
September	289					2.8		31.0		2.23		2.49
The year.	702					2.5		14.7		1.06		14.31

## Muddy Creek near Archdale, N. C.

Location.- Water-stage recorder 600 feet above county highway bridge, 2 miles east of Glenola brick plant, 3 miles southwest of Coltrane's mill, and 7 miles southeast of Archdale, Randolph County. Prior to Aug. 7, staff gage 75 feet downstream with datum 1.05 feet lower.

Drainage area.- 14.2 square miles.

Records available.- May to September 1934.

Extremes.- Maximum discharge during period, 637 second-feet June 7; minimum, 0.05 second-foot Sept. 4.

No flow at times during 1930.

Remarks.- Records fair.

Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									10.2	7.70	.60	.13
2									49	89	.55	.09
3									50	5.9	.55	.07
4									54	3.9	.50	.05
5									250	2.85	.45	.68
6									109	2.6	.45	.73
7									221	2.2	.43	2.62
8									39	1.8	.95	1.88
9									25	2.35	.49	.60
10									18.2	4.47	.29	.38
11									13.7	2.45	.19	.29
12									14.3	2.2	.16	.22
13									14.5	1.65	.16	1.38
14									7.3	1.4	.16	12.5
15									5.7	1.2	.13	.21
16									4.65	1.1	.09	.80
17									4.05	1.0	.07	.20
18									5.2	1.1	.11	14.2
19								11.9	5.3	4.16	.22	6.55
20								8.0	3.2	3.80	.19	6.7
21								5.9	2.7	1.1	.40	5.7
22								6.3	2.2	.8	.16	4.24
23								22	2.0	.85	.11	3.57
24								5.9	2.0	1.0	.16	2.75
25								11.9	1.8	.65	.25	2.30
26								4.2	1.45	.65	.38	2.14
27								3.40	1.3	1.1	.33	5.6
28								3.55	2.1	.8	.29	29
29								10.2	1.55	.8	.22	28
30								57	1.25	.8	.16	10.1
31								14.2		1.15	.13	
Month				Maximum		Minimum		Mean		Per square mile		Run-off in inches
October												
November												
December												
January												
February												
March												
April												
May 19-31				57		3.40		12.6		0.887		0.43
June				250		1.25		30.7		2.16		2.41
July				89		.85		4.96		.549		.40
August				.95		.07		.30		.021		.02
September				138		.05		14.1		.993		1.11
The year												

## Lower Little River at Linden, N. C.

Location.- Water-stage recorder at bridge on State Highway 21, on Cumberland-Harnett County line, 1 mile west of Linden, Cumberland County, 1 mile above Stewart Creek, and 4 miles above mouth. Prior to Aug. 26, 1934, chain gage at same site and same datum was used. Zero of gage is 71.37 feet above mean sea level.

Drainage area.- 450 square miles.

Records available.- November 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 2,280 second-feet Apr. 10 (gage height, 8.40 feet); minimum, 43 second-feet Oct. 15 (gage height, 2.25 feet).  
1928-34: Maximum discharge recorded, 10,300 second-feet Oct. 2, 1929; maximum gage height, 35.5 feet Oct. 4, 1929; minimum discharge, 33 second-feet Sept. 14, 1932.  
Maximum stage known, 37.3 feet Sept. 21, 1928 (estimated discharge, 13,000 second-feet).

Remarks.- Records good except those estimated July 8-12, which are poor.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	90	83	90	93	149	794	218	362	74	231	186
2	69	97	97	106	101	181	794	181	330	1,560	205	193
3	73	93	92	101	139	130	755	181	272	1,040	139	145
4	68	81	87	110	272	219	599	193	362	916	113	166
5	70	55	98	106	218	231	464	101	638	677	139	143
6	60	106	108	130	205	411	464	130	875	464	93	141
7	58	95	100	115	149	346	428	130	957	244	120	203
8	55	93	90	117	110	272	428	84	999	200	446	303
9	54	84	101	105	97	218	446	52	999	300	1,040	394
10	54	120	120	101	97	272	2,060	92	957	240	999	468
11	56	93	139	108	113	502	1,840	99	560	600	1,040	521
12	58	70	130	139	139	521	1,340	53	394	1,400	1,080	365
13	52	93	130	149	205	521	1,080	73	315	1,080	755	334
14	56	113	139	112	315	483	755	90	286	834	677	253
15	54	120	130	105	258	502	560	79	272	521	330	205
16	53	108	130	84	170	560	638	97	100	286	378	599
17	72	110	113	90	139	483	755	378	139	300	244	875
18	59	106	115	97	130	428	957	362	120	218	231	936
19	56	100	139	100	149	378	957	286	346	149	218	916
20	56	93	130	87	159	560	834	231	362	139	181	736
21	44	139	120	101	394	916	755	181	244	218	205	580
22	46	149	118	97	362	716	716	130	159	149	218	472
23	50	120	106	149	159	521	521	159	149	428	170	362
24	65	120	112	120	159	560	346	149	272	521	231	356
25	79	103	120	130	159	560	378	90	378	483	231	295
26	68	103	113	170	159	560	300	100	346	346	231	283
27	73	97	113	181	170	521	231	95	181	272	560	247
28	64	70	115	170	170	599	231	103	110	286	395	234
29	55	105	130	139		834	181	118	90	286	334	253
30	66	105	106	86		875	193	272	77	362	272	247
31	63		100	81		794		378		394	218	
Month				Maximum		Minimum		Mean		Per square mile		Run-off in inches
October				79		44		60.7		0.135		0.16
November				149		55		101		.224		.25
December				139		83		113		.251		.29
January				181		81		115		.256		.30
February				394		93		178		.396		.41
March				916		130		478		1.06		1.22
April				2,060		151		693		1.54		1.72
May				378		52		157		.349		.40
June				999		77		389		.862		.96
July				1,560		74		483		1.07		1.23
August				1,080		93		378		.840		.97
September				936		141		380		.844		.94
The year.				2,060		44		294		.653		8.85



## Yadkin River at Wilkesboro, N. C.

Location.- Water-stage recorder at highway bridge connecting North Wilkesboro and Wilkesboro, Wilkes County, just below mouth of Reddies River.

Drainage area.- 480 square miles.

Records available.- October 1928 to September 1934. April 1903 to June 1909, October 1920 to September 1928 at North Wilkesboro, 1 mile below.

Average discharge.- 14 years (1920-34), 733 second-feet.

Extremes.- Maximum discharge during year, 10,600 second-feet Apr. 10 (gauge height, 13.72 feet); minimum, 130 second-feet Jan. 31 (gauge height, 1.55 feet).

1903-9, 1920-34: Maximum discharge, about 23,000 second-feet Oct. 2, 1929; minimum, that of Jan. 31, 1934.

Maximum stage recorded, 34.5 feet July 1916.

Remarks.- Records fair except those estimated July 4-22, July 25 to Aug. 11, Aug. 13 to Sept. 11, Sept. 14-30, which are poor. Slight diurnal fluctuations from operation of power plant on Reddies River 1 mile upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	303	298	274	317	353	427	764	545	444	327	360	400
2	379	293	265	379	406	551	665	534	406	444	340	360
3	342	295	263	317	355	3,940	592	511	406	342	420	340
4	312	346	293	293	327	3,190	551	505	433	300	1,000	320
5	312	348	283	358	306	1,730	522	483	709	300	500	300
6	296	438	274	422	303	1,220	505	433	528	340	400	300
7	298	379	327	592	293	828	500	455	511	300	400	280
8	283	348	296	696	283	671	466	455	528	500	1,500	340
9	278	322	278	500	278	575	4,070	422	505	600	600	600
10	283	302	274	416	233	494	5,440	427	472	790	400	360
11	276	298	269	379	298	460	1,940	472	438	1,100	332	263
12	274	306	265	363	298	422	1,280	406	395	600	332	308
13	278	298	278	406	303	411	1,020	374	395	600	340	293
14	274	312	278	353	274	389	892	389	363	700	500	360
15	269	298	276	327	274	368	764	528	332	460	700	500
16	276	293	269	337	269	353	1,280	665	322	400	550	5,000
17	627	293	260	312	260	348	1,270	483	293	337	460	1,500
18	455	283	260	308	262	337	1,730	406	735	288	650	800
19	322	283	278	308	265	337	1,280	411	822	900	550	600
20	293	278	575	303	265	665	1,090	353	505	500	440	460
21	293	288	400	298	255	575	925	327	422	400	340	400
22	358	276	317	298	298	455	822	394	379	360	320	380
23	368	288	298	308	312	438	758	665	353	332	300	360
24	342	278	288	303	274	449	702	406	368	263	400	340
25	327	274	283	293	327	733	683	406	337	340	1,700	340
26	296	263	332	303	1,440	860	628	332	308	280	1,000	460
27	308	269	379	293	860	2,720	610	332	303	360	600	600
28	293	274	317	283	449	5,590	580	327	303	700	500	550
29	303	278	288	283		1,800	557	406	368	750	440	650
30	296	269	283	242		1,150	551	628	342	600	400	500
31	298		274	233		925		540		460	400	
Month	Maximum				Minimum			Mean		Per square mile		Run-off in inches
October	627				269			320		0.667		0.77
November	438				269			303		.631		.70
December	575				260			300		.625		.72
January	696				233			349		.727		.84
February	1,440				233			364		.758		.79
March	5,590				337			1,080		2.25		2.59
April	5,440				466			1,110		2.31		2.58
May	665				327			452		.942		1.09
June	822				293			434		.904		1.01
July	1,100				280			490		1.02		1.16
August	1,700				300			554		1.15		1.33
September	5,000				280			609		1.27		1.42
The year	5,590				233			531		1.11		15.02

## Yadkin River at Yadkin College, N. C.

Location.- Water-stage recorder at State highway bridge 1 mile southwest of Yadkin College, Davidson County.

Drainage area.- 2,250 square miles.

Records available.- July 1928 to September 1934.

Extremes.- Maximum discharge during year, 22,400 second-feet Mar. 28 (gage height, 16.18 feet); minimum, 774 second-feet Oct. 15 (gage height, 0.53 foot).  
1928-34: Maximum discharge, 67,800 second-feet Oct. 3, 1929 (gage height, 29.8 feet); minimum, 395 second-feet Sept. 20, 1932 (gage height, 0.05 foot).

Remarks.- Records good. Discharge estimated Nov. 16, 17, 23. Staff gage readings used Oct. 31 to Nov. 22. Slight diurnal fluctuation caused by operation of small power plant about 10 miles upstream.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	830	1,010	1,030	1,220	928	2,400	6,960	1,900	2,300	1,400	2,300	2,400
2	2,000	1,010	1,010	1,360	1,360	2,000	5,190	1,860	2,700	1,500	1,810	1,760
3	1,840	982	1,040	1,450	1,540	5,790	3,210	1,810	2,500	1,760	1,580	1,900
4	1,150	1,050	1,050	1,360	1,400	20,100	2,800	1,810	2,150	1,400	1,450	1,400
5	1,040	1,090	1,050	1,320	1,270	13,100	2,600	1,760	3,240	1,360	1,360	1,320
6	964	1,270	1,090	1,540	1,150	6,280	2,600	1,680	6,780	1,630	1,360	1,540
7	946	1,270	1,220	1,810	1,170	4,200	2,300	1,680	4,700	1,220	1,270	2,150
8	910	1,270	1,150	2,300	1,130	3,100	2,200	1,580	2,900	1,160	1,630	2,900
9	870	1,140	1,180	2,350	1,120	2,600	5,080	1,580	2,700	1,840	1,540	1,900
10	862	1,060	1,100	1,860	955	2,300	17,100	1,540	2,150	3,100	1,540	1,400
11	846	1,050	1,050	1,580	1,040	2,050	13,000	1,540	1,950	4,530	1,320	1,270
12	870	1,100	1,040	1,450	1,100	1,900	5,670	1,450	1,760	4,090	1,360	1,170
13	854	1,100	1,040	1,500	1,220	1,760	4,090	1,500	1,950	4,300	1,500	1,400
14	870	1,130	1,050	1,500	1,150	1,680	3,430	1,360	1,760	2,700	1,540	1,630
15	846	1,090	1,050	1,400	1,090	1,580	3,000	1,860	1,500	1,680	2,050	1,680
16	846	1,040	1,070	1,360	1,070	1,540	4,110	3,760	1,560	1,360	1,810	5,730
17	937	1,020	1,110	1,320	1,030	1,600	6,300	3,540	1,220	1,220	1,580	13,900
18	1,320	991	1,050	1,270	1,030	1,450	4,640	2,100	1,270	1,760	1,540	5,490
19	1,540	1,060	1,070	1,220	1,110	1,450	4,750	1,680	1,400	2,100	4,340	3,980
20	1,170	1,050	1,540	1,220	1,090	1,900	3,980	1,500	2,200	1,540	3,240	3,870
21	1,030	1,050	2,350	1,180	1,060	3,210	3,430	1,450	1,680	2,340	1,680	2,450
22	991	1,140	1,760	1,180	1,060	2,700	2,900	1,360	1,320	1,810	1,270	2,050
23	1,040	1,100	1,360	1,140	1,140	2,100	2,700	1,760	1,220	2,050	1,500	1,860
24	1,060	1,110	1,270	1,180	1,140	2,000	2,500	2,100	1,810	1,360	4,860	1,720
25	1,160	1,070	1,180	1,140	1,270	2,450	2,400	2,100	1,810	1,360	5,910	1,680
26	1,090	1,030	1,220	1,130	5,890	3,210	2,500	2,700	1,320	1,500	6,930	1,540
27	1,020	990	1,360	1,140	7,950	3,650	2,200	1,540	1,140	2,390	6,340	1,450
28	991	1,020	1,400	1,100	4,420	17,400	2,100	1,360	1,040	3,100	3,000	1,500
29	1,030	1,010	1,320	1,080	15,000	2,000	2,000	1,400	1,220	2,400	2,100	4,160
30	1,020	1,030	1,180	964	5,840	1,900	2,300	1,220	1,220	3,650	2,100	6,940
31	991		1,170	919	6,460		2,800			3,210	3,100	
Month					Maximum	Minimum	Kean	Per square mile	Run-off in inches			
October					2,000	830	1,060	0.471	0.54			
November					1,270	982	1,080	.480	.54			
December					2,350	1,010	1,210	.538	.62			
January					2,350	919	1,370	.609	.70			
February					7,950	928	1,670	.742	.77			
March					20,100	1,450	4,600	2.04	2.35			
April					17,100	1,900	4,250	1.89	2.11			
May					3,760	1,360	1,680	.836	.96			
June					6,780	1,040	2,070	.920	1.05			
July					4,530	1,160	2,160	.960	1.11			
August					6,930	1,270	2,420	1.08	1.24			
September					13,900	1,170	2,800	1.24	1.38			
The year					20,100	830	2,220	.987	13.35			

## Pee Dee River near Rockingham, N. C.

Location.- Water-stage recorder at State highway bridge 1 mile above Falling Creek, 4 miles below Blewett Falls hydroelectric plant, and 6 miles west of Rockingham, Richmond County. Zero of gage is 81.81 feet above mean sea level.

Drainage area.- 6,910 square miles.

Records available.- September 1927 to September 1934.

Extremes.- Maximum discharge during year, 47,200 second-feet June 7 (gage height, 9.81 feet); minimum, 30 second-feet May 28 (gage height, 0.60 foot); minimum daily discharge, 45 second-feet Dec. 25.

1927-34: Maximum discharge, 212,000 second-feet Sept. 19, 1928 (gage height, 25.38 feet, present datum); minimum, 30 second-feet Oct. 9, 1932, May 28, 1934; minimum daily discharge, 40 second-feet Oct. 9, 1932.

Remarks.- Records good except those estimated, Jan. 26, 27, Sept. 10-30, which are fair. Flow partly regulated by several storage reservoirs. Large diurnal fluctuations caused by operation of power plant.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	4,000	3,470	2,860	4,410	5,040	21,600	5,080	12,500	77	6,100	4,310
2	2,740	2,220	142	2,290	5,210	5,760	13,100	4,740	8,950	3,793	7,810	5,460
3	4,420	2,140	57	2,890	3,290	3,110	10,500	4,780	7,720	5,207	6,200	4,100
4	4,250	3,340	2,050	4,210	1,940	2,830	9,730	2,500	13,900	3,000	1,010	4,280
5	4,120	769	4,550	2,430	3,940	5,740	9,090	452	29,200	1,737	204	4,410
6	3,050	2,870	5,640	2,260	5,320	7,590	9,460	383	42,400	4,010	2,210	4,840
7	3,400	2,120	6,190	1,610	5,550	7,300	6,430	1,800	42,500	2,337	2,890	4,090
8	1,420	2,750	2,640	2,910	3,670	4,900	2,140	2,780	21,100	264	5,010	8,620
9	4,540	2,750	3,840	3,090	2,490	4,180	7,040	2,240	12,000	4,017	4,680	4,880
10	3,790	2,410	1,830	4,630	1,370	2,560	32,600	1,920	7,680	6,650	3,030	6,500
11	3,600	1,940	3,150	4,750	2,300	1,780	35,500	4,070	9,460	5,447	2,760	5,000
12	4,860	965	3,540	5,110	5,120	2,320	22,800	1,870	9,200	9,207	3,850	4,800
13	4,860	3,600	4,340	6,100	1,860	4,260	12,800	1,080	8,080	9,207	3,220	5,000
14	3,050	2,860	2,870	1,190	1,980	3,050	10,700	5,300	5,090	7,397	2,890	8,000
15	1,130	2,800	3,470	2,810	2,580	4,590	4,880	6,210	2,920	4,827	3,390	9,500
16	4,480	2,780	372	2,960	2,830	3,800	7,800	9,200	2,440	5,197	4,150	16,000
17	4,630	2,610	2,310	2,520	3,010	2,870	13,200	9,200	476	2,437	3,900	38,000
18	5,610	2,770	3,160	2,520	1,920	1,350	9,780	9,740	4,280	3,500	1,620	28,000
19	1,810	2,580	3,900	3,110	2,540	2,290	13,900	5,980	4,460	4,087	2,970	16,000
20	2,760	1,880	4,060	2,010	4,180	3,780	13,000	99	5,410	2,867	4,340	10,000
21	1,970	2,780	3,780	56	3,280	2,220	12,500	2,100	3,610	2,927	6,900	8,940
22	2,260	3,810	3,260	1,640	3,070	3,370	5,980	5,610	2,610	847	5,290	8,500
23	3,770	1,580	1,550	1,230	3,280	5,230	6,530	7,760	914	2,650	5,090	3,400
24	3,890	2,860	508	2,170	677	2,330	9,460	7,770	3,770	4,320	6,750	2,800
25	3,310	2,530	45	2,160	2,600	2,440	9,460	2,540	2,330	3,597	4,940	3,400
26	3,850	2,010	262	2,000	5,830	3,300	9,730	2,740	2,610	4,710	1,990	6,000
27	2,390	2,220	1,840	1,800	7,790	5,260	7,710	92	4,360	4,020	5,350	3,200
28	818	4,280	2,260	102	8,080	9,200	3,040	1,930	3,790	7,617	8,920	3,000
29	1,300	4,890	3,590	2,260		13,100	229	7,160	3,950	4,337	8,820	2,200
30	3,420	3,410	1,360	631		17,200	3,930	10,700	1,540	4,850	4,950	1,200
31	3,600		1,690	2,870		27,300		16,600		7,637	4,190	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,610	270	3,210	0.465	0.54
November	4,890	769	2,680	.388	.43
December	6,190	45	2,630	.381	.44
January	6,100	56	2,550	.366	.42
February	8,080	677	3,680	.518	.54
March	27,300	1,350	5,490	.795	.92
April	35,600	229	11,200	1.62	1.61
May	16,600	92	4,660	.674	.78
June	42,500	476	9,320	1.35	1.51
July	9,200	70	4,280	.619	.71
August	8,920	204	4,440	.643	.74
September	38,000	1,200	7,810	1.13	1.26
The year	42,500	45	5,130	.742	10.10

## Fisher River near Copeland, N. C.

Location.- Staff gage 300 feet above highway bridge on State Highway 268, 1 mile above Cody Creek, and 2 miles west of Copeland, Surrey County.

Drainage area.- 125 square miles.

Records available.- October 1931 to September 1934.

Extremes.- Maximum discharge recorded during year, 2,980 second-feet Mar. 23 (gage height, 6.80 feet); minimum recorded, 35 second-feet several times during October (gage height, 1.86 feet).  
1931-34: Maximum discharge recorded, 6,890 second-feet Nov. 1, 1932 (gage height, 10.60 feet); minimum recorded, 21 second-feet Sept. 18, 1932 (gage height, 1.70 feet).

Remarks.- Records good.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	50	54	75	66	88	258	97	86	55	84	76
2	200	52	50	79	93	97	167	95	86	73	82	71
3	54	55	63	75	72	111	148	93	81	53	82	70
4	49	63	61	73	65	552	135	89	86	53	78	65
5	48	105	60	82	65	275	120	84	499	53	74	63
6	46	93	60	73	66	173	106	89	140	56	71	117
7	48	65	58	140	65	135	106	93	109	53	68	78
8	46	60	56	149	63	117	100	93	100	53	64	68
9	42	58	55	103	63	106	1,320	89	89	447	62	64
10	36	56	54	89	65	102	552	79	86	634	58	55
11	38	56	54	84	66	98	396	76	79	422	58	53
12	38	56	52	79	66	98	212	71	140	499	55	53
13	37	60	56	80	63	95	167	68	93	177	151	50
14	36	58	60	77	61	91	136	67	82	100	662	51
15	37	56	58	79	60	84	124	70	78	84	70	56
16	36	55	54	75	55	78	372	167	64	78	67	2,400
17	124	60	56	72	55	74	499	88	58	88	64	662
18	80	60	58	66	56	74	324	76	113	86	1,240	170
19	56	60	113	63	60	73	238	73	102	93	552	129
20	52	56	302	63	56	250	258	67	67	840	271	120
21	56	58	115	63	58	140	173	64	60	187	161	115
22	56	61	77	60	63	115	151	187	55	750	324	109
23	58	66	72	65	61	111	129	190	173	151	212	100
24	54	65	63	63	61	219	127	89	372	120	447	97
25	52	60	63	61	132	215	246	161	78	91	140	89
26	50	60	91	61	95	190	167	70	56	117	662	78
27	52	58	75	60	88	960	104	67	55	965	634	70
28	52	56	66	60	86	1,900	95	64	54	297	146	68
29	54	55	65	52	271	271	97	70	54	840	98	840
30	50	55	66	50	190	190	97	82	54	208	422	208
31	49		63	52		526		78		102	95	
Month				Maximum		Minimum		Mean		Per square mile		Run-off in inches
October				200		36		55.6		0.445		0.51
November				105		50		60.9		.487		.54
December				302		50		72.6		.581		.67
January				149		50		74.9		.599		.69
February				132		55		68.8		.650		.57
March				1,900		73		245		1.56		2.26
April				1,320		97		238		1.50		2.12
May				190		64		91.8		.734		.85
June				499		54		108		.854		.96
July				966		53		252		2.00		2.33
August				1,240		55		234		1.67		2.16
September				2,400		50		208		1.66		1.85
The year				2,400		36		143		1.14		15.51

## South Yadkin River at Cooleemee, N. C.

Location.- Water-stage recorder below tailrace of Erwin Cotton Mills, at Cooleemee, Davidson County.

Drainage area.- 560 square miles.

Records available.- June 1928 to September 1934.

Extremes.- Maximum discharge during year, about 6,630 second-feet Mar. 4 (gage height, 14.75 feet, from flood marks); minimum, 40 second-feet Jan. 15 (gage height, 0.81 foot); minimum daily discharge, 111 second-feet Nov. 25.  
1928-34: Maximum discharge (estimated), 24,800 second-feet Oct. 3, 1929 (gage height, 32.25 feet); minimum, 10 second-feet Nov. 25, 1931 (gage height, 0.40 foot); minimum daily discharge, 46 second-feet Sept. 11, 1932.

Remarks.- Records below 500 second-feet good except those estimated. Records above 500 second-feet and those estimated Jan. 29 to Mar. 14, Apr. 22-25, Apr. 29 to May 14, July 24 to Aug. 7 poor. Large diurnal fluctuations during low and medium stages caused by operation of Erwin Cotton Mills.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	240	245	175	323	400	800	946	390	748	347	350	474
2	450	268	215	325	320	1,500	704	350	722	507	320	357
3	338	266	224	318	270	3,500	622	350	360	432	300	329
4	313	194	263	260	280	2,500	569	310	560	172	200	290
5	289	220	239	307	270	1,500	526	250	1,900	349	400	225
6	316	314	233	333	270	1,100	496	400	1,020	237	350	312
7	193	268	250	426	260	900	477	380	596	117	1,500	346
8	244	214	274	653	280	700	458	350	609	209	903	516
9	336	215	153	514	250	550	2,320	350	253	642	328	303
10	279	234	234	404	200	400	4,250	340	391	352	442	325
11	260	146	300	332	260	500	5,090	380	447	393	480	251
12	272	186	217	259	300	450	1,830	300	358	441	223	242
13	286	272	202	353	280	420	941	350	316	274	469	270
14	203	221	235	353	260	410	863	322	283	183	275	390
15	211	231	232	357	250	409	521	572	274	237	258	298
16	304	213	128	279	240	420	1,520	657	254	433	282	1,420
17	255	225	231	321	150	287	1,680	533	248	244	279	1,590
18	317	159	273	262	250	379	1,020	359	345	897	148	644
19	339	161	268	308	300	421	822	271	252	623	898	478
20	308	250	327	235	250	458	728	322	404	607	335	367
21	207	220	450	188	240	645	736	373	238	435	286	357
22	229	209	346	335	250	545	570	301	262	335	208	291
23	397	280	174	279	240	461	500	316	181	417	252	164
24	295	267	260	255	200	332	500	300	211	1,027	538	353
25	284	111	249	258	1,000	609	490	295	339	600	591	285
26	245	218	281	183	4,000	656	441	328	233	500	943	281
27	266	271	357	272	2,000	838	382	312	235	400	807	213
28	156	226	326	267	1,000	3,070	481	354	205	300	753	273
29	217	238	311	260		5,070	430	703	297	500	479	808
30	294	153	211	250		3,180	400	2,670	245	400	653	1,340
31	238		218	240		1,440		1,380		350	1,110	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	450			156			277			0.494	0.57	
November	314			111			223			.398	.44	
December	450			128			253			.452	.52	
January	653			183			313			.559	.64	
February	4,000			150			509			.909	.95	
March	5,070			287			1,110			1.98	2.28	
April	5,090			382			1,040			1.85	2.08	
May	2,670			250			480			.857	.99	
June	1,900			181			426			.761	.85	
July	1,020			117			418			.746	.86	
August	1,500			148			495			.884	1.02	
September	1,690			164			463			.827	.92	
The year	5,090			111			501			.895	12.12	

## Uharie River near Trinity, N. C.

Location.- Water-stage recorder 500 feet below county highway bridge 2 miles south of Trinity, Randolph County. Prior to July 17, staff gage 50 feet downstream.

Drainage area.- 11.3 square miles.

Records available.- May to September 1934.

Extremes.- Maximum discharge during period May 16 to Sept. 30, 1934, 755 second-feet June 6; minimum, 0.25 second-foot Sept. 5.

Remarks.- Records good.

Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									34	65	3.28	0.47
2									93	14.3	1.65	.47
3									33	3.50	1.32	.47
4									26	2.97	1.12	.42
5									130	2.34	.60	6.1
6									151	2.22	.80	1.12
7									62	1.76	1.63	36
8									22	1.53	2.46	3.14
9									13.9	9.7	1.54	2.19
10									10.7	36	2.1	2.46
11									7.7	21	2.59	1.22
12									6.05	3.68	1.43	17.2
13									5.1	2.80	1.32	6.0
14									4.20	2.22	1.22	6.3
15									4.02	1.76	1.01	15.9
16								93	3.66	1.53	.74	143
17								16.5	3.15	1.74	2.76	15.1
18								9.9	6.0	1.64	1.22	8.65
19								6.8	4.20	2.21	1.01	6.0
20								5.1	2.62	1.74	.74	4.72
21								4.20	2.62	1.32	.64	4.21
22								3.85	2.22	1.22	.74	3.52
23								7.4	2.10	1.43	.69	2.96
24								6.1	2.10	1.12	.80	2.59
25								5.35	2.22	13.9	1.17	2.40
26								3.65	1.53	12.9	2.26	2.22
27								3.32	1.30	4.21	1.01	3.64
28								3.50	1.30	1.74	.69	20
29								12.0	1.16	1.64	.69	19.7
30								11.4	1.16	17.7	.64	6.6
31								7.4		2.78	.64	
Month				Maximum		Minimum		Mean		Per square mile		Run-off in inches
October												
November												
December												
January												
February												
March												
April												
May 16-31				93		3.32		12.4		1.10		0.65
June				151		1.16		21.3		1.83		2.10
July				65		1.12		8.37		.741		.85
August				21		.64		1.93		.171		.20
September				143		.42		1.16		.103		.11
The year												

## Rocky River near Norwood, N. C.

Location.- Water-stage recorder at Hyatts Ford, 1,000 feet below Lanes Creek and 6 miles southwest of Norwood, Stanley County.

Drainage area.- 1,380 square miles.

Records available.- October 1929 to September 1934.

Extremes.- Maximum discharge during year, 13,600 second-feet June 4 (gage height, 11.45 feet); minimum, about 19 second-feet Nov. 13.  
1929-34: Maximum discharge (estimated), 52,500 second-feet Oct. 2, 1929 (gage height, 31.4 feet); minimum, 19 second-feet Oct. 28, 1931, Nov. 13, 1933.  
Maximum stage known, about 35 feet in August 1908 (estimated discharge, 60,000 second-feet).

Remarks.- Records good except those for October to February and those estimated Apr. 8-13, 22-28, which are fair. Slight diurnal fluctuation during low stages.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	56	46	94	85	694	1,550	281	2,860	155	319	510
2	135	54	74	110	917	510	981	226	2,140	120	304	166
3	375	58	59	182	787	470	654	222	1,970	233	254	110
4	365	58	54	156	352	1,740	523	214	11,200	230	147	92
5	168	50	74	118	258	5,360	440	207	11,200	167	115	76
6	120	35	70	135	214	2,490	376	179	10,700	141	98	558
7	90	76	81	267	193	1,120	339	169	10,500	129	101	2,350
8	70	74	70	304	166	728	304	160	3,200	113	196	3,690
9	35	87	81	616	150	586	4,000	129	2,520	364	230	1,880
10	54	85	85	281	138	510	2,500	138	2,760	1,550	200	1,520
11	39	66	76	189	120	393	1,630	103	1,380	939	304	583
12	60	66	81	153	120	354	1,040	108	1,010	1,010	464	222
13	33	28	56	141	193	299	702	110	855	646	449	1,190
14	28	72	66	163	304	263	529	113	616	286	991	7,070
15	48	64	68	176	214	258	434	163	464	172	945	2,890
16	35	74	68	150	172	250	1,940	649	360	133	160	5,850
17	46	89	78	123	163	234	3,190	1,570	304	120	108	4,820
18	219	74	66	118	138	214	2,090	1,040	295	101	103	1,420
19	222	56	83	108	132	211	1,680	523	376	1,250	101	496
20	120	35	83	101	147	238	3,020	309	281	483	513	422
21	94	72	406	98	211	586	2,330	218	250	225	491	299
22	78	56	276	98	179	558	1,530	1,130	193	123	166	250
23	46	66	150	96	150	920	1,000	4,030	169	98	218	222
24	74	110	113	94	163	927	700	990	179	150	2,900	189
25	60	103	101	94	154	719	600	464	339	1,990	1,070	169
26	89	85	98	92	2,210	1,200	500	428	324	723	354	153
27	92	68	103	92	6,020	1,040	360	344	204	4,290	659	153
28	76	72	238	96	1,820	5,120	329	193	153	1,460	422	138
29	62	64	144	94		3,640	290	2,370	166	589	176	132
30	26	68	108	81		1,400	263	8,560	166	972	135	120
31	72		92	81		2,170		4,780		728	249	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					375	26	100	0.072		0.08		
November					110	28	87.4	.049		.06		
December					406	46	105	.076		.09		
January					616	81	152	.110		.13		
February					5,020	85	532	.366		.40		
March					5,360	211	1,140	.826		.95		
April					4,000	263	1,190	.862		.96		
May					8,560	103	972	.704		.81		
June					11,200	153	2,240	1.62		1.81		
July					4,290	98	656	.461		.55		
August					2,900	98	417	.302		.35		
September					7,070	76	1,260	.913		1.02		
The year.					11,200	26	731	.530		7.18		

## Lynches River at Effingham, S. C.

Location.- Water-stage recorder at steel highway bridge 75 feet upstream from Atlantic Coast Line Railroad bridge and 1 mile south of Effingham, Florence County. Staff gage with same datum about 75 feet upstream used prior to Sept. 7, 1934. Zero of gage is 58.70 feet (revised) above mean sea level, unadjusted.

Drainage area.- 1,070 square miles.

Records available.- August 1929 to September 1934.

Extremes.- Maximum discharge recorded during year, 2,300 second-feet June 13 (gage height, 10.30 feet); minimum, 157 second-feet Oct. 15.  
1929-34: Maximum discharge recorded, 15,200 second-feet Oct. 7, 1929 (gage height, 19.25 feet); minimum, 152 second-feet Oct. 24, 25, 1931.  
Maximum stage known, 20.0 feet Aug. 30, 1908 (estimated discharge, 18,000 second-feet).

Remarks.- Records good. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	175	220	235	355	445	507	571	385	355	310	507	571		
2	175	220	235	340	415	539	639	370	445	295	491	460		
3	175	205	235	325	385	571	744	355	523	370	460	370		
4	182	205	250	340	400	587	817	340	639	355	491	310		
5	190	220	250	370	445	621	792	325	768	310	539	280		
6	250	220	250	370	507	604	768	310	894	340	400	265		
7	295	265	250	370	555	587	658	295	976	400	310	280		
8	250	280	250	385	587	639	539	295	1,060	430	280	333		
9	235	310	250	370	539	678	539	280	1,160	415	265	348		
10	220	310	250	355	460	744	523	265	1,240	325	250	415		
11	205	265	250	355	400	894	491	250	1,340	295	310	491		
12	190	235	250	370	415	976	507	235	1,940	295	400	523		
13	175	235	250	355	415	1,040	539	220	2,300	310	460	491		
14	168	220	250	340	445	948	604	220	2,190	415	415	430		
15	160	220	250	340	460	842	678	220	1,980	507	400	415		
16	168	220	250	340	507	894	792	220	1,770	587	370	430		
17	175	235	250	355	571	921	817	220	1,420	678	310	460		
18	175	250	265	355	604	894	621	205	868	792	280	523		
19	168	265	265	355	621	744	539	250	587	658	340	571		
20	168	265	265	340	555	678	523	325	460	415	340	621		
21	182	250	280	325	491	621	587	400	400	355	310	678		
22	190	250	280	340	491	604	678	460	400	385	370	744		
23	220	250	280	325	523	621	792	475	415	460	475	817		
24	220	250	295	325	555	621	868	370	400	539	604	768		
25	205	235	325	325	555	658	894	340	370	621	699	491		
26	190	235	370	325	523	678	894	340	340	555	587	370		
27	205	250	370	325	491	639	721	400	355	355	445	348		
28	220	265	340	310	491	571	523	430	400	310	507	316		
29	235	265	325	340	555	555	430	385	430	295	571	295		
30	235	250	340	385	539	539	415	340	370	340	587	295		
31			340	430		539		340		430	555			
Month					Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October					295		160		201		0.188		0.22	
November					310		205		246		.230		.26	
December					370		235		276		.258		.30	
January					430		310		350		.327		.38	
February					621		385		495		.463		.48	
March					1,040		507		695		.650		.75	
April					894		415		650		.607		.68	
May					475		205		318		.297		.34	
June					2,300		340		893		.835		.93	
July					792		295		424		.395		.46	
August					699		250		430		.402		.46	
September					817		265		457		.427		.48	
The year					2,300		160		451		.421		5.74	



## Lumber River at Boardman; N. C.

Location.- Staff gage at State highway bridge  $1\frac{1}{2}$  miles below Big Swamp and 1 mile below Atlantic Coast Line Railroad bridge at Boardman, Columbus County.

Drainage area.- 1,240 square miles.

Records available.- September 1929 to September 1934.

Extremes.- Maximum discharge recorded during year, 2,120 second-feet Sept. 21 (gage height, 8.60 feet); minimum recorded, 140 second-feet Oct. 16, 17, 18 (gage height, 0.54 foot).

1929-34: Maximum discharge recorded, 7,430 second-feet Oct. 9, 1929 (gage height, 9.20 feet); minimum (estimated), 132 second-feet Oct. 12, 1930.

Remarks.- Records good.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	210	172	224	238	332	457	820	636	400	332	795	552
2	197	172	224	238	349	438	845	573	419	356	749	573
3	197	172	224	253	349	419	845	495	457	400	703	552
4	197	172	238	253	349	419	845	457	573	438	680	533
5	197	172	238	268	366	419	870	419	680	476	657	514
6	184	172	238	268	366	419	870	363	749	514	636	514
7	184	172	238	268	363	419	870	349	795	573	616	533
8	184	184	238	268	363	438	845	332	845	703	573	533
9	184	184	238	268	400	457	845	315	870	900	457	533
10	172	197	238	268	400	457	845	298	900	1,040	400	514
11	172	197	238	268	419	495	845	283	960	1,130	438	514
12	160	197	238	268	419	533	845	283	1,040	1,240	457	514
13	160	210	238	268	419	573	845	268	1,130	1,180	476	573
14	172	224	238	253	419	594	820	268	1,240	1,180	533	616
15	160	224	238	253	419	616	820	298	1,360	1,130	616	703
16	160	224	238	253	438	657	795	315	1,480	1,080	657	900
17	140	224	253	253	457	680	795	315	1,360	1,000	616	1,130
18	140	238	253	253	457	680	795	332	1,240	900	573	1,540
19	160	238	238	253	476	703	820	349	1,130	845	514	1,840
20	160	238	238	253	514	703	820	366	1,040	795	476	2,020
21	160	238	238	253	514	726	845	363	930	749	438	2,120
22	160	238	238	253	514	749	845	400	795	703	457	1,840
23	160	224	238	253	495	749	845	400	726	657	476	1,680
24	160	238	224	253	495	749	845	419	657	657	514	1,540
25	160	238	238	253	495	726	845	419	594	680	533	1,480
26	160	238	238	253	476	726	820	419	533	703	552	1,420
27	172	238	238	253	457	749	795	419	457	726	552	1,360
28	172	238	238	268	457	772	772	419	419	749	533	1,300
29	184	238	238	298		795	749	419	366	795	514	1,180
30	184	224	238	298		795	680	419	349	845	514	1,130
31	184		224	315		820		400		845	533	
Month	Maximum					Minimum		Mean		Per square mile	Run-off in inches	
October	210					140		170		0.137	0.16	
November	238					172		211		.170	.19	
December	253					224		237		.191	.22	
January	316					332		262		.211	.24	
February	514					332		429		.346	.36	
March	820					419		611		.493	.57	
April	870					680		825		.665	.74	
May	636					268		382		.308	.36	
June	1,480					349		816		.658	.73	
July	1,240					332		785		.633	.73	
August	795					400		556		.448	.52	
September	2,120					514		1,020		.823	.92	
The year.	2,120					140		524		.423	5.74	

## Black River at Kingstree, S. C.

Location.- Tape gage at highway bridge at Kingstree, Williamsburg County. Zero of gage is 25.86 feet (revised) above mean sea level, unadjusted.

Drainage area.- 1,240 square miles.

Records available.- August 1929 to September 1934.

Extremes.- Maximum discharge recorded during year, 908 second-feet June 12, 13 (gage height, 6.80 feet); minimum, 13 second-feet several times in October.  
1929-34: Maximum discharge recorded, 6,400 second-feet Jan. 25, 1930 (gage height, 12.2 feet); minimum, 5 second-feet from Oct. 18 to Dec. 4, 1931 (gage height, 0.20 foot).  
Maximum stage known, 18.0 feet Sept. 21, 1928 (discharge estimated, 26,300 second-feet).

Remarks.- Records good. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	17	21	66	161	388	403	141	122	92	18	215
2	85	17	21	66	171	388	388	131	289	76	15	227
3	73	17	21	73	182	388	373	122	388	65	15	239
4	73	17	22	81	204	388	358	104	289	72	15	227
5	73	17	26	89	227	388	344	92	251	72	15	204
6	66	17	30	97	239	388	330	80	289	72	15	204
7	52	17	30	97	239	403	316	72	358	65	17	388
8	46	17	30	97	239	403	302	62	419	58	26	520
9	40	17	30	97	251	388	302	51	538	51	30	502
10	34	17	31	106	251	388	302	45	721	45	23	419
11	29	17	35	115	251	419	302	38	859	45	58	316
12	25	17	35	124	276	435	302	32	908	38	26	251
13	24	17	35	124	302	435	276	28	908	33	19	263
14	20	17	35	124	316	451	263	28	811	33	19	302
15	17	17	35	134	344	468	251	30	678	39	19	373
16	17	17	35	134	358	465	251	40	596	48	18	538
17	17	17	35	134	373	502	251	51	557	62	15	678
18	17	17	35	134	358	502	251	72	557	68	15	596
19	16	17	40	134	358	502	263	68	557	58	22	502
20	13	17	46	134	403	502	276	58	520	51	38	451
21	13	18	46	134	403	502	302	51	485	54	58	419
22	13	21	46	144	419	502	302	45	419	54	92	403
23	13	21	52	161	451	485	302	45	373	45	104	403
24	13	21	52	161	451	468	276	45	350	38	96	403
25	13	21	52	161	435	451	251	39	276	32	88	388
26	15	21	52	161	435	419	227	38	251	27	88	344
27	21	21	59	161	419	403	204	33	227	23	104	330
28	20	21	59	151	403	403	182	33	204	22	131	289
29	17	21	66	151	419	419	171	34	161	19	161	263
30	17	21	66	151	419	419	161	45	122	19	182	227
31	17		66	151		419		65		19	204	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October					102	13	32.6	0.026	0.03			
November					21	17	18.2	.015	.02			
December					66	21	40.1	.032	.04			
January					161	66	124	.100	.12			
February					451	161	319	.257	.27			
March					502	388	436	.352	.41			
April					403	161	283	.228	.25			
May					141	28	58.6	.047	.05			
June					908	122	449	.362	.40			
July					92	19	48.2	.039	.04			
August					204	15	56.3	.045	.05			
September					678	204	363	.293	.33			
The year					908	13	183	.148	2.01			

## Wateree River near Camden, S. C.

Location.— Water-stage recorder at steel highway bridge 4,800 feet upstream from Seaboard Air Line Railroad bridge, 3 miles southwest of Camden, Kershaw County, and 7 miles downstream from Wateree Dam. Zero of gage is 119.735 feet above mean sea level.

Drainage area.— 5,010 square miles.

Records available.— January 1903 to June 1910; October 1929 to September 1934.

Extremes.— Maximum discharge during year, 20,200 second-feet June 9 (gage height, 20.65 feet); minimum (estimated), 153 second-feet Dec. 25 (gage height, 1.49 feet) caused by shut-down of power plant; minimum daily discharge, 202 second-feet Dec. 10. 1904-10, 1929-34: Maximum discharge determined, 199,000 second-feet Oct. 3, 1929 (gage height, 36.2 feet); minimum (estimated), 153 second-feet Oct. 3, 1932, and Dec. 25, 1933 (gage height, 1.49 feet); minimum daily discharge, that of Dec. 10, 1933.

Maximum stage known, 40.4 feet July 18, 1916, from U. S. Weather Bureau record. Maximum stage during flood of Aug. 1908, 38.4 feet.

Remarks.— Records fair. Large diurnal fluctuation caused by operation of power plant at Wateree dam. Considerable regulation by storage in reservoirs upstream. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	491	2,760	1,200	3,790	3,350	5,340	419	8,530	7,980	2,820	5,860	994
2	4,180	2,890	2,020	5,340	3,400	4,590	3,350	8,870	4,110	4,730	6,470	291
3	5,440	2,560	429	5,020	2,350	3,400	4,920	7,760	1,750	7,250	3,940	3,640
4	5,710	916	2,480	4,130	536	1,070	4,380	6,500	6,530	5,570	2,340	5,290
5	5,360	444	3,910	3,790	2,460	4,360	5,140	3,020	8,040	4,320	483	3,520
6	5,120	3,480	4,560	2,560	3,640	5,390	4,990	523	12,000	3,790	4,440	3,490
7	1,440	5,270	3,790	826	3,380	4,920	1,810	4,460	13,900	2,600	5,830	4,910
8	504	5,310	2,900	2,230	2,860	5,130	503	5,540	13,200	782	4,380	4,870
9	2,500	5,120	766	2,940	3,180	5,040	2,640	6,670	19,100	4,500	4,610	1,700
10	2,910	4,090	202	2,860	1,980	3,640	2,920	7,760	17,000	5,870	2,710	4,180
11	2,890	1,610	4,280	2,960	618	955	2,730	7,000	13,100	4,540	1,790	4,510
12	3,400	825	5,190	3,120	2,580	4,160	3,680	3,500	10,900	4,810	567	4,630
13	3,300	4,110	4,760	2,310	3,100	5,270	5,000	1,160	9,360	3,770	3,800	5,260
14	963	5,160	5,190	670	3,040	5,240	2,410	4,840	8,190	3,180	5,370	5,770
15	222	4,230	4,640	2,420	3,300	4,990	463	7,520	6,630	1,460	4,980	1,760
16	2,460	4,640	2,470	3,110	3,210	5,160	3,390	6,090	6,630	5,060	4,960	502
17	2,790	2,720	580	3,600	1,820	2,690	5,180	5,670	4,790	6,110	2,510	3,310
18	2,010	528	4,860	3,410	608	817	5,140	5,610	5,480	6,030	1,730	4,430
19	2,360	244	7,600	3,640	2,600	4,770	5,340	3,770	5,660	6,170	657	4,770
20	1,750	3,270	7,700	2,140	3,360	5,670	6,260	1,250	6,500	2,830	3,490	4,580
21	631	4,300	6,760	698	3,110	5,030	3,440	5,040	5,930	1,660	4,830	2,580
22	213	4,200	5,740	2,330	3,060	4,760	1,830	7,400	5,330	420	5,410	1,610
23	1,490	3,650	2,380	2,600	2,820	4,690	5,990	6,400	6,320	4,620	5,110	437
24	1,740	2,190	649	3,300	1,860	2,390	7,980	7,170	1,630	5,950	3,180	3,910
25	1,990	579	671	3,610	631	1,230	7,400	6,290	4,660	5,800	2,300	4,860
26	2,730	277	1,940	3,040	3,890	4,410	8,720	3,610	7,750	5,140	598	5,150
27	2,600	3,360	1,920	2,170	4,960	4,850	8,860	901	8,100	2,930	4,300	6,020
28	1,560	3,360	1,720	560	5,230	5,800	4,860	5,490	7,510	1,150	5,490	5,000
29	691	3,820	1,690	2,420	6,000	510	8,180	4,740	264	5,200	2,080	2,080
30	3,370	1,620	1,680	3,090	3,290	5,610	8,930	6,000	4,530	4,370	443	
31	4,210		701	2,970	1,180		8,260		6,830	3,740		
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	5,710			213			2,486			0.496	0.57	
November	5,310			244			2,917			.592	.65	
December	7,700			202			3,077			.614	.71	
January	5,340			560			2,860			.571	.66	
February	5,230			536			2,748			.549	.57	
March	6,000			817			4,072			.813	.94	
April	8,860			419			4,196			.838	.94	
May	8,930			523			5,604			1.12	1.29	
June	19,100			1,630			7,960			1.59	1.77	
July	7,250			264			4,048			.808	.93	
August	6,470			483			3,724			.745	.86	
September	6,020			291			3,478			.694	.77	
The year	19,100			202			3,933			.786	10.66	

## Santee River at Ferguson, S. C.

Location.- Water-stage recorder at Ferguson, Orangeburg County, 4 miles downstream from mouth of Eutaw Creek. Zero of gage is 42.88 feet above mean sea level.

Drainage area.- 14,800 square miles.

Records available.- December 1907 to September 1934.

Average discharge.- 26 years (1908-34), 18,710 second-feet.

Extremes.- Maximum discharge during year, 47,000 second-feet June 11-14; maximum gage height, 13.80 feet June 12; minimum discharge, 3,770 second-feet Dec. 13 (gage height, 1.60 feet).  
1907-34: Maximum discharge, 368,000 second-feet July 22, 1916 (gage height, 24.5 feet); minimum, 2,570 second-feet Sept. 2, 1925 (gage height, -0.7 $\bar{F}$  foot), caused by regulation of storage reservoirs upstream.

Remarks.- Records good. Discharge estimated July 22, 23. No daily fluctuation but very distinct weekly fluctuations during medium and low-water periods caused by power plants at Parr Shoals Reservoir on Broad River, Camden Reservoir on Wateree River, and Lake Murray on Saluda River. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,700	9,880	9,320	7,380	9,600	16,000	20,000	11,600	18,800	14,300	9,320	16,700
2	14,000	12,900	7,620	5,420	10,300	18,500	20,900	12,400	20,500	12,400	13,100	17,500
3	9,880	13,800	6,660	6,540	10,300	19,200	21,400	14,700	22,600	9,880	14,100	16,500
4	12,500	14,100	6,180	10,500	10,300	9,200	20,500	15,800	25,000	11,800	14,100	12,700
5	16,100	14,000	4,740	11,000	10,000	17,800	18,600	16,000	27,200	14,000	12,700	11,900
6	16,200	10,700	5,520	11,200	7,020	18,500	17,000	15,300	28,800	13,800	10,600	14,900
7	16,500	7,140	8,270	10,600	7,140	20,000	15,800	11,900	30,500	13,400	8,400	14,700
8	16,000	10,600	9,600	8,920	9,600	21,400	14,700	7,750	32,500	13,200	10,600	13,600
9	12,300	13,600	9,600	6,540	10,200	23,300	11,200	8,140	38,000	10,900	13,800	12,700
10	8,660	14,100	8,790	7,880	10,400	26,000	8,530	11,200	44,000	8,530	14,300	11,900
11	11,300	13,400	6,660	11,000	10,700	27,200	11,800	12,300	47,000	10,600	14,500	9,460
12	13,400	12,100	4,380	10,900	8,530	27,200	15,100	12,900	47,000	14,100	12,900	9,740
13	13,800	8,790	5,320	10,000	5,960	22,600	16,800	12,700	47,000	15,800	9,740	11,600
14	13,800	5,960	9,320	9,740	8,270	18,800	15,300	10,300	47,000	15,700	8,140	11,900
15	12,700	7,380	9,880	8,790	11,200	17,000	14,500	7,020	44,000	15,800	10,300	12,100
16	9,180	10,400	10,300	6,070	11,800	15,800	11,500	8,400	41,000	12,600	13,400	12,600
17	6,660	11,300	10,600	6,780	11,200	14,300	8,660	12,400	38,000	9,320	14,900	10,900
18	9,740	11,600	8,270	9,320	9,880	13,200	10,600	15,300	32,500	11,500	14,700	10,200
19	12,900	10,400	5,220	9,600	7,880	11,600	14,500	17,200	26,000	14,300	13,100	14,100
20	14,300	7,140	6,780	9,600	5,630	8,790	16,700	18,100	22,000	15,600	10,200	15,800
21	14,700	4,470	11,200	9,600	6,900	8,400	18,100	18,100	20,900	16,500	8,790	15,800
22	14,100	6,070	12,600	8,400	10,000	11,800	19,200	15,300	20,500	15,600	12,300	14,900
23	11,200	9,320	13,100	5,630	10,700	12,400	19,600	14,900	20,000	11,600	14,500	12,400
24	8,270	10,400	12,400	5,960	11,500	11,600	18,500	16,500	17,800	8,010	15,300	9,180
25	10,700	10,700	9,320	8,920	10,300	11,300	17,800	17,000	15,800	9,880	15,100	7,260
26	12,700	10,200	7,750	10,600	8,270	10,200	17,800	17,200	12,300	13,100	13,600	10,200
27	13,600	7,140	6,180	11,000	5,630	8,400	17,500	17,000	12,600	14,300	11,800	13,400
28	14,100	4,380	5,960	9,740	8,400	9,320	17,800	14,500	14,500	14,500	10,000	14,700
29	14,100	6,070	6,780	8,010		12,100	17,800	11,200	15,600	12,600	11,200	15,600
30	11,000	9,050	7,500	6,180		16,000	15,600	12,700	15,800	9,320	14,000	16,000
31	7,380		7,880	7,260		18,500		16,500		6,780	16,000	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	16,700			6,660			12,490			0.844	0.97	
November	14,100			4,380			9,903			.669	.75	
December	13,100			4,380			8,184			.553	.64	
January	11,200			5,420			8,674			.566	.68	
February	11,800			5,630			9,200			.622	.65	
March	27,200			8,400			16,340			1.10	1.27	
April	21,400			8,530			16,100			1.00	1.22	
May	18,100			7,020			13,620			.920	1.06	
June	47,000			12,300			28,170			1.90	2.12	
July	16,700			5,780			12,600			.851	.98	
August	16,000			8,140			12,440			.841	.97	
September	17,500			7,260			13,030			.880	.96	
The year	47,000			4,380			13,390			.905	12.29	

## Linville River at Branch, N. C.

Location.- Staff gage at steel highway bridge 800 feet from Branch post office, Burke County, and a quarter of a mile above Lake James.

Drainage area.- 65 square miles.

Records available.- June 1922 to September 1934.

Average discharge.- 12 years, 131 second-feet.

Extremes.- Maximum discharge recorded during year, 1,700 second-feet Mar. 27 (gage height, 4.30 feet); minimum recorded, 27 second-feet Oct. 12, 15 (gage height, 1.64 feet).

1922-34: Maximum discharge (estimated), 16,800 second-feet Aug. 15, 1928 (gage height, about 12.0 feet); minimum recorded, 7 second-feet Sept. 8, 1925 (gage height, 1.28 feet).

Remarks.- Records good.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	41	32	61	61	101	205	87	74	96	96	61
2	44	44	35	70	61	194	164	85	194	124	130	64
3	50	44	35	62	52	1,190	142	81	133	96	89	57
4	48	53	45	59	42	910	136	76	251	79	81	50
5	47	74	33	70	47	670	127	74	417	68	72	48
6	40	96	33	83	50	361	116	72	389	68	66	47
7	41	76	41	153	50	253	130	68	329	76	190	45
8	32	64	44	124	47	231	108	68	323	133	235	47
9	47	52	33	87	44	156	708	68	345	108	133	47
10	48	40	48	87	37	150	568	64	323	108	113	41
11	41	48	33	76	47	139	389	61	231	153	96	35
12	28	48	33	79	48	124	248	57	182	122	85	34
13	32	48	34	89	53	113	222	55	153	105	113	40
14	44	48	40	72	50	108	186	57	127	92	119	48
15	30	45	50	70	47	98	156	76	105	81	170	87
16	37	44	48	66	50	92	197	74	87	74	103	785
17	194	40	48	62	47	89	217	74	98	76	98	222
18	96	48	33	59	38	87	248	64	505	130	105	150
19	57	50	48	57	48	85	235	61	339	160	127	113
20	44	47	62	52	50	116	201	52	213	119	108	113
21	41	41	66	48	50	105	182	52	164	92	89	89
22	47	48	52	50	47	103	167	89	130	96	83	74
23	48	48	47	57	37	124	150	81	110	89	83	66
24	52	47	48	57	35	108	139	68	103	66	96	66
25	62	48	47	57	44	186	130	66	94	89	101	68
26	48	48	50	55	389	222	113	66	87	76	92	64
27	48	37	53	38	194	1,140	110	62	85	81	81	76
28	50	32	53	47	108	708	103	52	76	66	72	70
29	42	33	50	37		389	94	62	92	174	66	160
30	37	40	50	33		277	87	98	96	156	70	124
31	45		50	42		226		96		116	64	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	194	28	50.6	0.778	0.90
November	96	32	49.1	.755	.84
December	66	32	44.3	.682	.79
January	153	33	66.1	1.02	1.18
February	389	35	66.9	1.03	1.07
March	1,190	85	286	4.40	5.07
April	708	87	199	3.06	3.41
May	98	52	69.9	1.08	1.24
June	505	74	194	2.98	3.32
July	174	66	102	1.57	1.81
August	235	64	104	1.60	1.94
September	785	34	99.7	1.53	1.71
The year	1,190	28	111	1.71	23.18

## Little Sugar Creek near Charlotte, N. C.

Location.- Water-stage recorder just above sewage-disposal plant of city of Charlotte, a quarter of a mile below the mouth of Brier Creek, and 5 miles south of Charlotte, Mecklenburg County. Zero of gage is 571.6 feet above mean sea level.

Drainage area.- 41.4 square miles.

Records available.- July 1924 to September 1934.

Average discharge.- 10 years (1924-34), 43.2 second-feet.

Extremes.- Maximum discharge during year, 5,860 second-feet June 3 (gage height, 13.86 feet); minimum, 5.9 second-feet Aug. 21 (gage height, 1.66 feet).  
1924-34: Maximum discharge, about 7,050 second-feet Aug. 16, 1928 (gage height, 14.97 feet); minimum, 1.6 second-feet July 30, Aug. 1, 1925.

Remarks.- Records good except those above 700 second-feet and those estimated Apr. 26 to May 1, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	10	8.9	40	139	24	25	17	144	10	12	7.4
2	333	10	9.4	26	48	29	22	15	66	23	11	7
3	17	10	10	16	26	36	21	15	1,080	13	8.9	6.6
4	12	10	12	14	20	190	20	14	192	12	9.4	6.6
5	11	20	8.9	29	18	88	18	13	815	12	7.4	15
6	10	15	8.9	24	17	41	17	12	426	11	7.4	19
7	9.4	10	10	42	16	29	17	12	132	10	7.9	347
8	9.4	9.4	8.9	38	15	26	40	12	304	12	8.9	25
9	8.9	9.4	8.9	19	14	22	205	12	94	33	8.4	12
10	9.4	8.4	8.4	15	10	21	52	12	55	14	25	10
11	9.4	8.4	8.4	13	12	20	33	12	39	18	16	10
12	8.4	8.4	8.9	16	41	18	30	12	30	17	10	9.4
13	8.4	9.4	8.4	23	24	18	21	12	27	12	8.9	421
14	7.9	8.9	8.9	15	16	17	20	12	23	10	8.4	42
15	7.4	8.4	10	14	15	20	20	34	20	10	7.9	51
16	7.9	8.4	10	13	15	18	143	93	19	9.4	7.4	137
17	73	8.4	9.4	12	12	17	47	84	18	8.9	7	26
18	12	7.9	8.9	12	12	17	45	28	19	82	7.9	19
19	8.9	8.4	18	12	20	19	75	20	17	43	8.4	15
20	8.4	8.4	75	12	17	41	80	12	16	12	7	13
21	8.4	9.4	16	11	14	23	36	12	15	34	6.3	13
22	9.4	36	12	12	14	53	27	17	15	34	6.3	12
23	10	12	11	12	15	67	24	20	14	11	274	11
24	9.4	10	11	12	12	32	29	17	163	10	29	10
25	7.9	8.9	10	12	55	42	34	14	20	10	12	10
26	7.4	8.4	69	12	295	32	20	11	15	62	18	9.4
27	8.9	8.9	22	12	45	94	19	11	14	55	14	9.4
28	9.4	9.4	13	11	27	102	17	11	12	12	10	8.2
29	9.4	9.4	12	11		42	17	94	11	21	8.9	7.9
30	10	9.4	11	10		32	17	129	11	41	25	7.4
31	10		10	10		29		42		12	8.9	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				333	7.4	21.9	0.529		0.61			
November				36	7.9	10.6	.256		.29			
December				75	8.4	14.7	.355		.41			
January				42	10	17.1	.413		.48			
February				295	10	35.1	.948		.88			
March				190	17	40.6	.981		1.13			
April				205	17	39.6	.957		1.07			
May				129	11	26.8	.647		.75			
June				1,080	11	128	3.09		3.45			
July				82	8.9	21.8	.527		.61			
August				274	6.3	19.6	.473		.55			
September				421	6.6	43.2	1.04		1.16			
The year.				1,080	6.3	34.7	.838		11.39			

## Broad River near Chimney Rock, N. C.

Location.— Water-stage recorder 1,000 feet below Lake Lure Dam and 3 miles east of Chimney Rock, Rutherford County.

Drainage area.— 97 square miles.

Records available.— March 1927 to September 1934; May 1907 to June 1909 at Uree, 1 1/8 miles downstream.

Extremes.— Maximum discharge during year, 900 second-feet Mar. 4 (gage height, 2.60 feet); minimum, 1.3 second-feet Mar. 9 (gage height, 0.37 foot); minimum daily discharge, 1.9 second-feet Dec. 3.  
1907-9, 1927-34: Maximum discharge (estimated), 20,500 second-feet Aug. 15, 1928 (gage height, 15.0 feet); minimum, 0.7 second-foot Sept. 13, 1928 (gage height, 0.28 foot); minimum daily discharge, 0.8 second-foot Sept. 13, 14, 1928.

Remarks.— Records good. Large diurnal fluctuation caused by operation of power plant at dam. Flow regulated by storage in Lake Lure.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.3	72	70	143	71	131	112	76	72	72	74	154
2	145	73	68	70	142	159	219	147	71	147	75	4.7
3	68	75	1.9	72	102	449	150	75	76	76	148	154
4	4.3	132	146	73	2.7	816	145	150	226	74	72	92
5	149	71	70	143	148	568	222	76	294	149	3.9	78
6	4.3	147	2.1	145	70	399	121	72	245	72	150	76
7	67	74	144	109	73	183	125	149	151	72	190	74
8	3.5	69	120	274	72	205	103	74	270	98	315	76
9	146	72	68	146	69	206	263	77	315	201	77	4.3
10	4.3	68	2.3	146	67	101	143	75	168	74	148	142
11	135	64	148	75	2.7	126	148	148	274	234	74	75
12	4.7	3.5	70	104	144	134	69	146	142	74	154	78
13	69	133	2.3	79	71	137	147	3.1	150	149	234	73
14	68	3.3	70	77	69	65	150	150	152	73	78	148
15	4.3	69	70	149	71	136	70	310	149	73	231	73
16	145	68	66	77	50	65	227	207	108	73	149	390
17	146	46	2.5	75	35	91	211	125	74	73	149	195
18	145	35	144	60	2.5	67	270	151	572	74	105	231
19	65	2.9	104	76	142	136	150	77	597	149	125	147
20	4.3	140	113	110	68	143	230	78	282	70	234	76
21	108	69	74	3.1	2	139	182	153	150	71	73	137
22	4.3	71	70	143	69	72	108	153	150	3.1	75	71
23	144	69	68	69	71	147	232	155	111	145	105	73
24	94	4.4	2.5	71	62	178	72	79	72	84	116	71
25	3.9	64	2.1	71	54	154	229	78	149	72	75	71
26	71	3.9	142	74	520	261	147	75	148	72	75	69
27	72	138	136	69	446	438	148	3.3	73	146	224	140
28	69	66	73	2.7	219	627	104	152	75	100	75	110
29	4.7	67	74	144		401	94	111	150	126	152	610
30	147	2.1	34	71		242	146	319	74	297	97	275
31	4.7		2.7	2.7		263		125		72	150	
Month	Maximum		Minimum		Mean		Per square mile		Run-off in inches			
October	149		3.5		67.9		0.700		0.81			
November	147		2.1		65.7		.677		.76			
December	148		1.9		69.7		.719		.83			
January	274		2.7		94.3		.972		1.12			
February	520		2.0		104		1.07		1.11			
March	816		65		234		2.41		2.75			
April	270		69		158		1.63		1.82			
May	319		3.1		122		1.26		1.45			
June	597		71		185		1.91		2.13			
July	297		3.1		105		1.08		1.24			
August	315		3.9		129		1.33		1.53			
September	610		4.3		132		1.36		1.52			
The year	516		1.9		122		1.26		17.10			

## Broad River near Boiling Springs, N. C.

Location.- Water-stage recorder half a mile above mouth of Sandy Run Creek and  $3\frac{1}{2}$  miles southwest of Boiling Springs, Cleveland County. Prior to July 20, 1934, water-stage recorder 500 feet upstream with datum 1.00 foot higher.

Drainage area.- 815 square miles.

Records available.- June 1925 to September 1934.

Extremes.- Maximum discharge during year, 10,900 second-feet Mar. 28 (gage height, 8.05 feet, old datum); minimum, 322 second-feet Oct. 15 (gage height, 0.74 foot, old datum); minimum daily discharge, 375 second-feet Oct. 9, 15.

1925-34: Maximum discharge, 56,800 second-feet Aug. 16, 1928 (gage height, 23.3 feet, old datum); minimum, 186 second-feet Sept. 21, 22, 1925; minimum daily discharge, 232 second-feet Sept. 20, 1925.

Remarks.- Records good except those estimated July 21-27, which are fair. Considerable diurnal fluctuation caused by power operations. Flow slightly regulated by storage in Lake Lure.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	425	684	523	711	812	1,720	1,920	1,180	1,610	550	860	1,180
2	443	604	734	1,320	937	1,440	1,370	1,160	2,360	621	867	862
3	697	620	479	989	1,010	4,630	1,690	1,190	1,340	1,160	824	717
4	649	571	537	1,100	743	8,500	1,420	1,100	1,650	830	640	876
5	568	697	806	1,140	628	6,240	1,470	1,140	2,570	720	570	853
6	668	775	828	1,300	1,080	4,050	1,400	799	2,740	895	597	804
7	533	858	980	1,190	836	3,000	1,600	813	2,250	788	984	605
8	391	750	1,020	1,470	872	2,470	896	1,170	3,560	749	1,910	890
9	375	726	904	1,870	856	2,270	2,760	1,060	2,760	743	1,480	660
10	614	707	578	1,610	806	2,140	2,360	1,030	1,780	1,090	1,100	579
11	561	699	571	1,400	585	1,480	1,940	1,030	1,440	1,210	750	620
12	624	550	817	1,190	846	1,160	1,710	1,120	1,670	1,190	1,070	808
13	460	518	840	1,080	842	1,670	1,710	780	1,680	990	1,020	838
14	512	771	853	864	836	1,700	1,150	710	1,410	680	1,430	750
15	375	745	728	799	815	1,540	980	1,610	1,270	530	1,280	986
16	380	620	703	1,380	798	1,520	1,480	2,620	1,090	631	1,080	5,300
17	959	597	537	1,210	780	1,280	2,720	2,010	969	930	1,010	2,320
18	1,100	572	578	984	585	900	3,200	1,460	2,630	781	996	2,390
19	1,020	425	850	968	610	982	2,460	1,240	3,260	778	864	1,470
20	716	560	1,490	852	821	1,300	2,500	841	2,190	835	837	1,310
21	586	664	1,360	736	792	1,570	2,140	825	1,620	800	1,200	1,180
22	580	864	1,130	679	769	1,420	1,320	1,120	1,130	600	874	1,060
23	504	770	920	966	680	1,420	1,230	1,400	1,090	900	886	757
24	748	705	650	921	744	1,300	1,850	1,450	777	800	1,470	750
25	744	657	599	859	646	1,320	1,740	1,030	732	800	942	844
26	619	518	791	988	4,710	1,360	1,410	1,230	1,140	650	773	875
27	640	504	1,230	797	3,810	4,180	1,330	865	1,210	1,300	1,070	848
28	644	732	1,160	592	2,220	9,220	1,280	696	1,090	728	1,910	910
29	498	767	970	585		4,470	906	1,010	941	608	1,280	1,480
30	425	831	938	792		3,060	979	1,310	660	753	2,570	2,010
31	662		719	806		2,460		1,590		1,070	2,130	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,100	375	604	0.741	0.95
November	864	425	669	0.821	.92
December	1,490	479	833	1.02	1.18
January	1,870	585	1,040	1.28	1.48
February	4,710	585	1,080	1.33	1.28
March	9,220	900	2,640	3.24	3.74
April	3,200	896	1,700	2.09	2.33
May	2,620	665	1,180	1.46	1.67
June	3,660	660	1,690	2.07	2.31
July	1,300	550	829	1.02	1.18
August	2,570	670	1,140	1.40	1.61
September	5,300	579	1,200	1.47	1.64
The year	9,220	375	1,220	1.50	20.29



## Broad River at Richtex, S. C.

Location.- Water-stage recorder 1 mile upstream from mouth of Little River at Richtex, Fairfield County. Zero of gage is 184.98 feet above mean sea level.

Drainage area.- 4,800 square miles.

Records available.- November 1925 to September 1934.

Extremes.- Maximum discharge during year, 34,400 second-feet Mar. 29 (gage height, 10.48 feet); minimum, about 143 second-feet July 9 (gage height, 0.28 foot); minimum daily discharge, 450 second-feet Oct. 15.

1925-34: Maximum discharge (estimated), 228,000 second-feet (revised) Oct. 3, 1929 (gage height, 30.7 feet); minimum, about 113 second-feet Sept. 21, 1931 (gage height, 0.23 foot); minimum daily discharge, 250 second-feet June 5, 1932.

Remarks.- Records good. Diurnal fluctuation caused by operation of Parr Shoals hydro-electric plant 11 miles upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	960	2,070	2,040	3,380	3,380	11,600	6,670	4,610	11,900	1,680	3,380	9,860
2	2,630	2,670	1,660	3,760	4,500	7,670	8,100	4,420	12,500	3,150	2,840	5,400
3	5,020	1,920	900	4,220	5,840	5,950	6,080	4,330	14,000	4,730	3,010	3,640
4	4,950	2,350	2,610	4,360	1,710	12,700	5,780	4,270	24,600	4,300	2,400	3,140
5	2,640	873	2,730	4,310	4,050	30,900	5,400	2,380	23,100	2,960	1,330	2,580
6	2,400	3,040	2,880	3,590	3,770	24,600	5,240	1,390	25,700	4,460	2,030	3,220
7	1,710	2,000	2,870	2,800	3,380	16,700	2,090	2,620	24,800	2,670	2,620	2,590
8	1,130	3,270	2,860	6,140	3,210	10,200	3,690	3,790	20,300	1,010	2,580	3,620
9	1,560	2,660	1,400	7,360	3,410	8,190	8,140	3,260	22,200	2,970	3,020	1,900
10	1,860	2,850	1,650	5,540	2,860	6,620	12,700	3,140	21,900	6,160	4,160	2,960
11	1,930	1,840	2,250	4,940	1,320	5,450	9,040	3,070	13,400	8,280	2,820	2,460
12	2,690	1,670	2,760	4,520	2,950	6,310	7,260	1,960	8,080	11,000	3,370	2,220
13	1,740	1,150	2,630	4,790	3,810	5,120	6,090	1,640	7,190	6,660	2,240	2,720
14	1,250	2,110	2,700	1,420	3,640	4,890	3,380	2,760	7,120	3,080	3,470	5,100
15	450	2,980	3,250	4,260	2,920	4,180	3,440	4,810	6,280	1,720	4,620	3,820
16	2,140	2,550	1,470	4,170	2,920	4,790	5,510	9,940	3,690	2,760	3,090	4,360
17	3,410	2,420	1,290	2,910	2,990	4,720	7,370	15,900	3,030	2,860	3,840	15,400
18	5,360	1,350	2,330	3,450	1,200	3,270	13,100	15,000	4,950	3,960	1,950	11,600
19	3,100	1,120	2,740	3,420	3,260	2,840	13,500	9,300	7,290	5,620	3,340	7,500
20	3,220	1,510	3,420	3,740	3,050	6,030	12,800	5,290	9,080	5,520	6,970	6,710
21	2,140	2,480	4,620	1,010	3,350	5,440	11,000	5,900	7,140	2,820	4,540	3,940
22	1,800	2,710	4,800	2,190	3,420	4,410	7,710	5,610	5,380	1,270	3,510	2,980
23	2,540	3,640	2,010	3,420	3,530	4,910	7,360	6,830	4,610	2,650	3,200	2,540
24	2,260	4,200	5,880	3,100	2,990	4,720	6,010	7,160	2,220	2,770	4,020	2,450
25	2,930	1,990	1,660	2,930	634	4,200	5,900	7,480	2,640	2,820	5,350	2,260
26	2,660	1,340	2,950	2,900	4,600	5,040	6,670	4,010	3,040	4,520	4,060	3,060
27	2,710	1,840	3,470	2,760	23,600	6,080	6,230	2,940	3,650	2,960	2,650	3,100
28	1,960	2,950	4,630	1,790	19,300	15,600	3,790	3,930	3,740	2,220	4,820	2,860
29	834	2,450	4,820	2,300		31,400	3,720	6,930	3,500	1,400	7,600	2,770
30	1,590	2,180	4,080	2,770		19,500	4,990	13,300	2,520	3,160	8,980	1,360
31	2,280		913	2,750		11,000		19,600		3,700	11,600	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,360	450	2,379	0.496	0.57
November	4,200	873	2,273	.474	.53
December	4,820	900	2,718	.566	.65
January	7,360	1,010	3,644	.738	.85
February	23,600	634	4,486	.935	.97
March	31,400	2,840	9,523	1.98	2.28
April	15,500	2,090	6,959	1.45	1.62
May	19,600	1,390	6,050	1.26	1.45
June	25,700	2,220	10,320	2.15	2.40
July	11,000	1,010	3,731	.777	.90
August	11,600	1,330	3,981	.829	.96
September	15,400	1,360	4,271	.890	.99
The year	31,400	450	5,014	1.04	14.17

## Second Broad River at Cliffside, N. C.

Location.- Water-stage recorder at Cliffside, Rutherford County, 2 miles above mouth of river.

Drainage area.- 230 square miles.

Records available.- June 1925 to September 1934.

Extremes.- Maximum discharge during year, 6,670 second-feet June 8 (gage height, 7.62 feet); minimum, 8 second-feet July 26 (gage height, 0.61 foot); minimum daily discharge, 72 second-feet Oct. 18.  
1925-34: Maximum discharge, 15,000 second-feet Aug. 16, 1928 (gage height, 17.26 feet); minimum, that of July 26, 1934; minimum daily discharge, 11 second-feet Oct. 4, 1931.

Remarks.- Records good except those estimated Oct. 23 to Dec. 15, which are poor.  
Large diurnal fluctuation caused by operation of Cliffside Mills, a quarter of a mile upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	180	190	240	189	299	349	226	513	149	148	320
2	163	170	100	291	202	312	394	216	800	256	124	232
3	190	220	80	218	215	1,140	311	180	333	184	115	265
4	190	180	130	271	211	2,750	250	191	483	104	105	184
5	175	110	170	209	231	2,020	350	175	492	307	83	155
6	158	150	150	247	241	754	271	183	588	207	152	116
7	79	190	180	233	211	498	264	258	443	145	132	116
8	127	190	190	446	209	355	197	182	1,670	119	470	173
9	181	190	100	344	202	329	880	241	1,320	270	235	153
10	159	170	80	285	156	278	506	190	497	257	178	155
11	161	100	120	263	98	283	370	193	367	242	135	196
12	141	80	150	250	244	291	269	163	287	255	361	136
13	127	110	160	195	178	272	374	179	276	182	403	109
14	72	170	170	233	175	291	200	242	249	176	730	133
15	99	170	140	259	143	265	239	258	168	135	425	156
16	171	150	86	224	113	227	439	277	194	249	155	1,890
17	236	140	81	197	112	175	439	244	193	154	165	1,250
18	242	100	205	184	110	186	594	223	687	142	281	533
19	164	80	196	250	220	263	461	193	706	128	238	313
20	146	150	321	135	161	203	539	183	347	125	264	276
21	90	170	348	77	144	234	385	245	249	128	176	280
22	215	240	319	224	156	257	333	182	259	116	114	215
23	220	200	203	217	106	290	354	287	201	221	133	195
24	200	170	183	161	104	202	297	236	227	154	223	243
25	180	110	179	164	120	336	240	94	302	157	151	157
26	170	90	158	282	1,300	419	229	155	163	75	223	187
27	160	170	299	128	1,100	1,060	228	112	182	391	338	154
28	90	170	288	90	440	2,850	216	241	122	150	354	134
29	80	180	220	225		1,220	206	149	150	117	334	411
30	120	190	194	210		526	291	219	159	262	956	389
31	170		198	161		403		245		166	903	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				242	72	155	0.674		0.78			
November				240	80	156	.678		.76			
December				348	80	181	.737		.91			
January				446	77	223	.970		1.12			
February				1,300	98	253	1.10		1.14			
March				2,850	175	613	2.67		3.08			
April				880	197	349	1.52		1.70			
May				287	94	206	.876		1.03			
June				1,670	122	421	1.83		2.04			
July				391	75	190	.836		.95			
August				956	83	285	1.21		1.43			
September				1,890	109	308	1.34		1.50			
The year				2,850	72	278	1.21		16.44			

## North Pacolet River at Fingerville, S. C.

Location.- Water-stage recorder about 400 feet downstream from mouth of Obed Creek at McMiller's mill and 1 mile south of Fingerville, Spartanburg County. Zero of gage is 715.62 feet above mean sea level. Prior to Nov. 23, 1933, water-stage recorder about 400 feet downstream with datum 5.60 feet higher.

Drainage area.- 116 square miles.

Records available.- November 1929 to September 1934.

Extremes.- Maximum discharge during year, 2,100 second-feet Mar. 4 (gage height, 12.0 feet, present datum); minimum (estimated), 15 second-feet July 17; minimum daily discharge, 59 second-feet July 23.  
1929-34: Maximum discharge (estimated), 6,820 second-feet Oct. 17, 1932 (gage height, 15.73 feet, old site and datum); minimum (estimated), 13 second-feet several times in Oct. 1931; minimum daily discharge (estimated), 34 second-feet Oct. 1, 2, 1931.

Remarks.- Records good. Diurnal fluctuation caused by operation of mills upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	87	32	138	153	176	164	164	278	176	86	242
2	86	92	80	153	190	245	164	160	205	179	99	181
3	81	95	84	132	150	920	158	152	276	202	93	167
4	74	91	104	123	123	1,770	156	144	1,110	114	83	149
5	74	134	96	156	120	900	156	140	608	107	93	141
6	70	150	95	167	114	442	168	136	533	102	98	132
7	73	114	143	207	110	331	161	132	402	93	356	132
8	73	102	111	284	111	267	155	117	470	114	419	129
9	70	98	98	188	107	231	440	112	326	154	184	109
10	68	95	93	164	90	217	221	107	288	130	150	100
11	68	94	98	145	93	176	186	114	246	181	209	98
12	72	94	94	142	111	161	154	111	196	184	203	93
13	68	98	94	167	102	150	146	107	162	136	154	99
14	66	84	96	130	93	144	136	107	161	99	134	104
15	63	79	85	114	93	139	132	541	149	89	150	178
16	71	78	88	110	90	136	375	400	146	82	112	919
17	171	77	84	106	88	129	426	284	328	69	103	301
18	115	79	78	100	88	118	500	233	618	79	152	573
19	94	77	113	100	91	119	316	181	255	96	179	261
20	92	79	327	99	93	172	290	148	179	81	130	202
21	91	78	200	96	85	161	231	137	161	68	107	186
22	95	150	148	106	89	143	198	142	146	66	96	188
23	97	116	124	107	89	148	179	137	126	59	139	117
24	95	103	102	100	83	164	228	122	130	70	497	107
25	87	103	95	103	164	230	255	128	115	63	242	99
26	90	91	195	109	880	226	212	111	98	90	193	98
27	91	84	176	104	613	683	191	108	93	320	550	94
28	97	79	135	102	231	1,420	176	103	99	135	306	92
29	88	78	114	95		535	169	119	93	111	214	164
30	90	80	109	85		282	168	212	85	102	581	142
31	86		96	89		222		278		89	396	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	171			63			84.7			0.730	0.84	
November	150			77			94.6			1.816	1.91	
December	327			78			117			1.01	1.16	
January	284			85			130			1.12	1.29	
February	880			83			159			1.37	1.43	
March	1,770			118			360			3.10	3.57	
April	500			132			221			1.91	2.13	
May	541			103			167			1.44	1.66	
June	1,110			85			270			2.33	2.60	
July	320			59			118			1.02	1.18	
August	561			85			210			1.81	2.09	
September	919			92			185			1.59	1.77	
The year	1,770			59			176			1.52	20.63	

## Pacolet River near Fingerville, S. C.

Location.- Water-stage recorder 100 feet above new county highway bridge, a quarter of a mile downstream from confluence of North and South Pacolet Rivers, and 2½ miles southeast of Fingerville, Spartanburg County. Zero of gage is 706.39 feet above mean sea level.

Drainage area.- 212 square miles.

Records available.- November 1929 to September 1934.

Extremes.- Maximum discharge during year, 3,810 second-feet Mar. 4 (gage height, 6.39 feet); minimum, 64 second-feet July 23 (gage height, 0.31 foot), caused by shut-down of power plants; minimum daily discharge, 100 second-feet Oct. 15. 1929-34: Maximum discharge, 11,000 second-feet Oct. 17, 1932; minimum, about 28 second-feet Oct. 19, 1931; minimum daily discharge, 38 second-feet Oct. 4, 1931.

Remarks.- Records good. Diurnal fluctuation caused by operation of power plant on South Pacolet River and by mills on North Pacolet River. About 3,000,000 gallons a day diverted above station for Spartanburg water supply.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	117	139	129	249	255	404	252	267	396	230	161	500
2	167	140	129	277	291	467	376	276	328	308	168	205
3	139	141	121	256	268	1,310	366	274	315	330	155	294
4	124	150	157	246	144	3,280	372	263	1,300	230	150	275
5	128	162	139	282	199	1,690	368	242	1,350	226	139	265
6	122	210	166	292	191	877	354	173	1,040	190	160	258
7	156	158	240	226	188	568	354	184	1,070	175	417	252
8	114	154	160	407	176	500	207	182	1,020	154	517	226
9	120	150	147	309	187	460	548	184	766	226	310	140
10	122	146	134	286	146	450	422	174	416	246	274	182
11	137	156	204	266	132	234	366	184	506	309	326	156
12	150	120	195	238	215	289	275	174	442	287	238	145
13	124	150	191	254	169	283	265	183	418	210	283	154
14	150	131	166	156	159	275	258	176	342	164	265	154
15	100	125	138	162	153	268	194	598	262	148	225	232
16	124	123	154	150	151	265	493	483	254	152	172	1,030
17	209	125	129	156	156	250	596	491	434	146	160	794
18	164	140	130	139	139	156	712	420	1,020	142	198	864
19	140	115	201	180	159	254	525	305	706	171	230	510
20	138	148	467	201	161	298	505	190	446	150	196	408
21	152	148	326	130	154	283	440	258	410	140	170	266
22	124	236	273	175	158	204	232	254	360	122	154	275
23	146	236	246	183	152	241	392	190	225	127	184	156
24	143	227	135	177	147	290	444	200	178	140	571	160
25	140	176	127	181	198	284	482	182	226	143	314	154
26	140	117	313	214	1,180	347	422	170	190	156	232	156
27	158	133	303	168	1,260	948	403	146	165	386	652	159
28	138	128	253	131	473	2,580	390	166	196	206	507	168
29	114	128	239	140		1,050	202	226	166	150	400	220
30	146	128	192	130		520	266	334	208	163	784	180
31	138		136	175		460		404		158	746	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				209	100	136	0.642		0.74			
November				236	113	151	.7.2		.79			
December				467	121	195	.920		1.06			
January				407	130	211	.995		1.15			
February				1,260	132	263	1.2 <sup>A</sup>		1.29			
March				3,280	156	645	3.0 <sup>A</sup>		3.50			
April				712	194	384	1.81		2.02			
May				598	146	257	1.21		1.40			
June				1,350	165	505	2.38		2.66			
July				386	122	196	1.925		1.07			
August				784	138	305	1.44		1.66			
September				1,030	140	299	1.41		1.57			
The year				3,280	100	295	1.39		18.91			

## South Pacolet River Reservoir near Fingerville, S. C.

Location.- Water-stage recorder at highway bridge across South Pacolet River Reservoir, 1 mile upstream from dam, and  $1\frac{1}{2}$  miles south of Fingerville, Spartanburg County. Zero of gage is 760 feet above mean sea level.

Drainage area.- 92 square miles.

Records available.- March 1930 to September 1934.

Extremes.- Maximum gage height during year, 16.42 feet Mar. 4; minimum, 5.70 feet May 5. 1930-34: Maximum gage height, 17.09 feet Oct. 17, 1932; minimum, 2.76 feet Oct. 8, 1930.

Remarks.- Records good. Gage heights estimated Oct. 13-16, Dec. 12-28. City of Spartanburg diverts about 3,000,000 gallons daily for water supply from reservoir, also uses water for power purposes. Elevation of crest of concrete spillway is 772 feet with 3 feet of flashboards used to increase storage during periods of low flow. Capacity of reservoir, 117,500,000 cubic feet at gage height 15 feet.

Gage-height, in feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.17	11.37	11.98	12.00	11.93	14.47	14.77	7.78	12.64	11.04	12.00	14.80
2	12.06	11.38	12.00	12.08	12.02	13.83	14.65	7.47	12.52	12.05	12.13	14.45
3	11.86	11.40	12.18	11.81	11.81	14.80	14.05	7.00	13.04	12.64	12.07	14.27
4	11.80	11.43	12.35	11.42	11.76	16.31	13.31	6.41	13.70	12.55	12.03	13.79
5	11.75	11.63	12.48	11.15	11.72	15.81	12.47	5.84	15.58	12.19	12.03	13.29
6	11.68	12.10	12.57	11.00	11.59	15.38	11.65	6.02	15.43	12.06	12.03	12.74
7	11.62	12.27	12.41	11.37	11.40	15.06	10.84	6.38	15.52	11.96	12.10	12.17
8	11.57	12.36	12.47	12.07	11.29	14.68	10.70	6.58	15.50	12.10	13.24	11.61
9	11.47	12.38	12.63	11.99	11.12	14.00	11.69	6.57	15.47	12.31	13.21	11.62
10	11.37	12.40	12.78	11.78	11.12	13.14	12.33	6.72	15.38	12.28	12.76	11.54
11	11.23	12.40	12.52	11.37	11.18	13.00	11.62	6.81	15.11	12.28	12.27	11.39
12	11.01	12.50	12.16	11.00	11.18	13.13	11.22	6.82	14.45	11.90	12.53	11.37
13	10.89	12.58	11.74	11.10	11.18	12.92	10.93	6.81	13.66	11.66	12.58	11.45
14	10.79	12.72	11.48	11.46	11.22	12.71	10.57	6.84	12.85	11.71	12.07	11.63
15	10.68	12.78	11.40	11.73	11.20	12.45	10.52	8.10	12.52	11.75	11.63	11.78
16	10.70	12.83	11.50	11.96	11.22	12.13	11.33	11.64	12.23	11.66	11.57	14.43
17	11.01	12.88	11.58	12.20	11.22	11.88	12.09	12.89	12.71	11.53	11.47	15.42
18	11.18	12.97	11.65	12.37	11.27	11.94	12.65	12.35	15.09	11.41	11.60	15.18
19	11.22	13.07	11.80	12.45	11.30	11.96	12.59	12.10	15.32	11.35	12.08	14.30
20	11.22	13.05	12.44	12.27	11.33	11.78	12.45	12.19	14.58	11.32	12.39	13.16
21	11.20	12.97	12.45	12.39	11.29	11.64	11.98	12.09	13.63	11.19	12.38	12.55
22	11.50	12.96	12.21	12.47	11.28	11.44	11.98	11.77	12.55	11.12	12.33	12.11
23	11.38	12.62	12.00	12.39	11.27	12.15	11.79	11.98	12.01	10.98	12.30	11.99
24	11.43	12.08	11.90	12.29	11.27	12.18	10.95	12.08	12.15	10.79	12.61	12.09
25	11.46	11.61	11.93	12.16	11.45	12.59	10.83	12.14	12.02	10.68	12.65	12.15
26	11.58	11.69	12.30	11.97	13.93	12.94	10.28	12.27	11.78	10.57	12.90	12.20
27	11.33	11.75	12.60	11.95	15.65	13.60	9.31	12.40	11.72	11.31	13.28	12.24
28	11.27	11.76	12.38	12.13	15.10	16.03	8.20	12.46	11.63	11.62	14.09	12.20
29	11.55	11.62	12.03	12.28		15.53	7.94	12.25	11.46	11.70	13.18	12.30
30	11.39	11.89	11.67	12.30		15.16	8.00	12.21	11.19	11.70	14.22	12.46
31	11.36		11.94	12.20		14.77		12.59		11.69	15.28	

## North Tiger River near Moore, S. C.

Location.- Water-stage recorder at Ott's Shoals,  $1\frac{1}{4}$  miles upstream from mouth of Wards Creek,  $2\frac{1}{2}$  miles southeast of Moore, Spartanburg County, and  $3\frac{7}{8}$  miles upstream from confluence of North and South Tiger Rivers. Zero of gage is 564.85 feet above mean sea level, unadjusted.

Drainage area.- 162 square miles.

Records available.- April to September 1934.

Extremes.- Maximum discharge during period, 1,820 second-feet June 5 (gage height, 3.26 feet); minimum, 31 second-feet July 23 (gage height, 0.84 foot); minimum daily discharge, 53 second-feet July 22.

Remarks.- Records excellent. Diurnal fluctuation caused by operation of power plants upstream.

## Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							239	171	182	60	120	136
2							239	161	155	204	108	121
3							208	187	440	231	123	111
4							187	160	741	138	71	100
5							181	107	1,100	146	99	94
6							179	84	950	147	124	90
7							136	154	1,170	104	130	92
8							170	151	898	62	184	89
9							385	153	808	136	124	89
10							396	114	503	174	129	87
11							250	137	460	193	76	84
12							197	92	366	173	63	83
13							184	64	248	156	189	99
14							129	104	203	109	140	99
15							143	343	166	94	94	93
16							273	960	161	129	117	347
17							338	852	153	145	116	559
18							547	424	483	108	84	221
19							398	234	1,040	120	160	136
20							447	193	308	166	219	109
21							349	189	196	76	151	105
22							241	175	141	53	97	102
23							226	183	144	101	115	98
24							209	184	135	134	148	93
25							312	187	158	86	102	149
26							322	115	156	67	72	179
27							214	114	147	161	109	109
28							154	148	195	116	685	99
29							166	182	78	82	557	98
30							187	174	70	104	255	101
31								209		141	249	
Month							Maximum	Minimum	Mean	Per square mile	Run-off in inches	
October												
November												
December												
January												
February												
March												
April							547	129	254	1.57	1.75	
May							960	64	215	1.33	1.53	
June							1,170	70	399	2.46	2.74	
July							231	53	126	.778	.90	
August							685	63	162	1.00	1.15	
September							559	83	132	.816	.91	
The year:												

## Tiger River near Woodruff, S. C.

Location.- Water-stage recorder at Nesbitts Bridge, half a mile downstream from confluence of North and South Tiger Rivers, and 6½ miles east of Woodruff, Spartanburg County. Zero of gage is 489.69 feet above mean sea level, from partly adjusted network of levels.

Drainage area.- 351 square miles.

Records available.- October 1929 to September 1934.

Extremes.- Maximum discharge during year, 3,540 second-feet Mar. 5 (gage height, 5.57 feet); minimum, 69 second-feet July 23 (gage height, 1.80 feet); minimum daily discharge, 90 second-feet Oct. 15 and July 22.  
1929-34: Maximum discharge, 7,840 second-feet Oct. 17, 1932 (gage height, 7.60 feet); minimum, 50 second-feet Sept. 19, 1932 (gage height, 1.63 feet); minimum daily discharge, 61 second-feet Sept. 19, 1932.  
Maximum stage known, about 20.0 feet during flood of August 1928 (discharge not determined). Maximum stage during flood of September 1929, 14.65 feet (estimated discharge, 30,100 second-feet).

Remarks.- Records good. Diurnal fluctuation caused by operation of power plants upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	230	248	447	416	760	453	430	345	154	320	305
2	860	248	268	614	554	662	412	356	345	278	210	226
3	537	244	118	564	376	871	434	346	675	463	246	207
4	262	204	152	566	165	2,000	411	332	1,490	339	178	196
5	208	140	295	550	250	3,280	464	242	2,210	241	158	203
6	154	188	234	390	352	1,950	490	142	1,990	394	246	181
7	170	276	248	325	350	1,070	367	259	1,910	243	280	184
8	111	256	284	608	321	808	266	298	1,950	138	350	177
9	123	258	302	526	334	688	731	330	1,640	225	260	177
10	210	252	160	446	257	480	731	318	969	340	234	174
11	207	228	216	406	148	334	572	270	929	444	141	130
12	178	134	374	429	219	386	478	244	832	372	118	107
13	157	144	251	435	383	458	469	136	615	275	305	305
14	120	262	198	310	350	350	335	158	544	218	310	178
15	90	234	227	348	334	326	224	707	350	170	300	377
16	108	262	235	368	340	446	464	1,830	291	190	273	747
17	492	220	138	346	279	376	622	1,910	278	272	255	789
18	252	208	136	320	146	254	1,020	1,050	489	313	151	372
19	172	112	264	271	242	316	814	600	1,610	223	510	251
20	180	135	562	230	344	467	939	364	652	290	350	276
21	208	235	457	143	305	377	764	322	498	152	320	216
22	110	580	440	202	262	329	435	385	296	90	247	244
23	162	313	382	286	296	520	415	401	255	130	378	203
24	232	263	207	301	253	426	514	488	243	252	417	181
25	179	254	187	320	336	236	652	490	241	233	214	218
26	176	130	504	325	2,430	298	645	390	310	215	222	344
27	232	153	600	273	1,870	1,250	551	238	272	524	196	216
28	195	278	418	135	1,610	2,070	378	268	321	214	1,290	199
29	106	256	345	172		2,130	252	388	258	325	1,150	192
30	128	246	269	296		1,120	399	417	170	282	510	199
31	224		280	295		776		441		286	472	
Month	Maximum					Minimum		Mean		Per square mile	Run-off in inches	
October	880					90		215		0.613	0.71	
November	580					112		231		.658	.73	
December	600					118		291		.629	.96	
January	614					135		353		1.03	1.19	
February	2,430					148		483		1.38	1.44	
March	3,280					236		832		2.37	2.73	
April	1,020					224		523		1.49	1.66	
May	1,910					136		468		1.33	1.53	
June	2,210					170		766		2.16	2.43	
July	524					90		267		.761	.88	
August	1,290					118		342		.974	1.12	
September	789					107		259		.738	.82	
The year	3,280					90		419		1.19	16.20	

## South Tiger River near Reidville, S. C.

Location.- Water-stage recorder about a quarter of a mile upstream from county highway bridge,  $1\frac{1}{2}$  miles downstream from Berry Shoals, and  $1\frac{1}{2}$  miles northeast of Reidville, Spartanburg County. Zero of gage is 626.05 feet above mean sea level, unadjusted.

Drainage area.- 106 square miles.

Records available.- April to September 1934.

Extremes.- Maximum discharge during period (estimated), 2,300 second-feet Aug. 28 (gage height, 6.82 feet); minimum, 9.5 second-feet Aug. 26 (gage height, 0.70 foot); minimum daily discharge, 9.6 second-feet Aug. 25.

Remarks.- Records excellent for discharge between 10 and 1,250 second-feet. Good above and below these limits. Large diurnal fluctuation caused by operation of power plants above station.

Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								119	130	40	93	75
2								118	20	141	88	65
3								114	437	167	57	68
4								93	470	22	30	72
5								14	576	168	16	68
6								21	589	154	96	66
7								128	641	44	115	86
8								98	266	12	119	67
9								130	280	101	80	65
10								147	227	146	24	39
11								113	390	157	16	11
12								34	319	97	46	14
13								13	276	65	140	14
14								92	205	57	195	157
15								223	68	11	158	178
16								827	64	98	114	282
17								547	33	86	29	75
18							354	330	243	86	11	94
19							284	200	332	95	12	96
20							306	65	251	36	163	108
21								199	125	206	11	92
22								71	175	68	10	90
23								134	147	65	96	64
24								332	324	31	97	68
25								173	221	104	139	92
26								290	142	94	14	86
27								248	36	93	32	69
28								22	128	110	10	70
29								55	153	109	11	74
30								255	127	64	96	42
31								100		175	142	
Month						Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October . . . . .												
November . . . . .												
December . . . . .												
January . . . . .												
February . . . . .												
March . . . . .												
April 18-30 . . . . .						354	22	209	1.97		0.95	
May . . . . .						827	13	165	1.56		1.80	
June . . . . .						641	20	225	2.12		2.36	
July . . . . .						175	10	82.9	.732		.90	
August . . . . .						740	9.6	116	1.07		1.26	
September . . . . .						282	11	80.9	.733		.85	
The year . . . . .												



## South Tiger River near Woodruff, S. C.

Location.- Water-stage recorder at Chesnee Shoals, three-eighths of a mile upstream from confluence of North and South Tiger Rivers and  $5\frac{1}{8}$  miles east of Woodruff, Spartanburg County. Zero of gage is 508.38 feet above mean sea level, unadjusted.

Drainage area.- 174 square miles.

Records available.- March to September 1934.

Extremes.- Maximum discharge during period, 1,640 second-feet Mar. 28 (gage height, 4.35 feet); minimum, 33 second-feet July 23 (gage height, 1.58 feet); minimum daily discharge, 37 second-feet July 22.

Remarks.- Records excellent. Diurnal fluctuation caused by operation of power plants upstream.

## Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							190	228	153	90	169	151
2							169	163	170	92	116	104
3							206	165	241	185	103	94
4							207	155	659	147	95	92
5							247	101	1,100	96	88	94
6							278	61	935	207	96	90
7							204	110	782	116	131	88
8							89	136	702	64	155	88
9							312	163	832	96	134	88
10							313	169	351	136	88	86
11							308	143	433	204	51	47
12							264	127	411	183	45	39
13							252	66	340	112	106	115
14							179	77	306	92	172	75
15							81	280	166	70	183	258
16							194	834	121	70	168	378
17							252	1,050	113	122	110	209
18							440	594	106	162	62	129
19							379	336	388	118	319	99
20							466	157	298	103	120	150
21							356	131	272	50	150	102
22							172	188	136	37	143	131
23							165	204	97	59	251	94
24							278	290	92	110	240	88
25						86	324	294	85	114	98	97
26						108	308	229	136	158	136	119
27						681	320	119	112	341	105	94
28						1,040	198	100	102	67	591	92
29						923	77	194	162	217	657	94
30						581	206	230	91	161	244	92
31						419		212		167	205	
Month						Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October . . . . .												
November . . . . .												
December . . . . .												
January . . . . .												
February . . . . .												
March 25-31 . . . . .						1,040	86	548	3.15	0.82		
April . . . . .						466	77	248	1.43	1.60		
May . . . . .						1,050	61	256	1.36	1.57		
June . . . . .						1,100	85	330	1.90	2.12		
July . . . . .						341	37	128	.736	.85		
August . . . . .						591	45	169	.971	1.12		
September . . . . .						378	39	116	.667	.74		
The year . . . . .												

## Enoree River near Enoree, S. C.

**Location.**- Water-stage recorder half a mile upstream from Yarboroughs Bridge, three-quarters of a mile upstream from mouth of Warrior Creek, and 4 miles southeast of Enoree, Spartanburg County. Zero of gage is 447.96 feet above mean sea level, from partly adjusted network of levels.

**Drainage area.**- 307 square miles.

**Records available.**- August 1929 to September 1934.

**Extremes.**- Maximum discharge during year, 5,400 second-feet June 5 (gage height, 4.58 feet); minimum, about 30 second-feet Sept. 24, caused by shut-down of power plants upstream; minimum daily discharge, 59 second-feet Oct. 18.  
1929-34: Maximum discharge (estimated), 35,800 second-feet Oct. 2, 1929 (gage height, 10.5 feet); minimum, about 10 second-feet Sept. 30, 1933; minimum daily discharge, 50 second-feet July 24, 1932.

**Remarks.**- Records good. Diurnal fluctuation caused by operation of power plants upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	171	138	344	296	496	402	317	342	209	122	244
2	443	128	171	440	366	414	394	281	296	210	200	201
3	304	179	147	347	333	527	341	260	584	302	134	190
4	186	92	182	308	228	1,480	304	252	1,170	213	176	212
5	145	56	198	308	250	2,380	308	278	2,900	233	156	218
6	114	220	198	297	302	1,260	338	216	2,810	186	130	162
7	68	257	170	412	228	652	300	228	1,220	148	194	149
8	94	190	134	634	178	517	253	256	1,360	142	194	192
9	88	134	150	437	237	446	682	226	1,160	304	199	186
10	155	156	168	345	171	398	540	266	537	470	136	120
11	104	97	180	316	210	347	405	186	428	718	105	145
12	102	102	176	266	208	316	366	219	385	462	378	144
13	106	170	177	270	296	314	314	148	299	244	376	494
14	106	175	174	290	221	352	302	210	297	221	248	346
15	68	126	132	268	228	260	218	472	242	198	136	192
16	59	121	142	290	218	298	509	1,510	251	169	193	686
17	468	154	162	240	182	282	800	2,060	260	182	116	491
18	226	106	146	230	142	260	590	808	266	208	128	304
19	114	145	163	220	230	298	490	496	462	165	515	218
20	118	160	460	188	252	418	522	390	364	134	333	168
21	86	192	418	167	226	354	566	249	261	176	256	206
22	114	281	330	240	224	325	378	270	226	185	133	146
23	166	324	251	270	184	298	378	326	245	180	372	122
24	214	262	153	196	202	300	367	390	190	204	614	130
25	216	123	171	170	196	282	394	361	244	134	208	178
26	114	171	354	206	2,530	270	382	286	222	220	317	278
27	112	182	517	179	2,220	1,160	354	202	214	376	627	234
28	104	203	381	190	860	2,620	264	212	198	234	1,160	116
29	148	116	308	204	1,290	264	254	160	283	1,840	140	140
30	117	102	233	214	599	310	311	194	324	518	133	133
31	117		222	194		506	373		215	351		
Month	Maximum		Minimum		Mean		Per square mile		Run-off in inches			
October	468		59		151		0.49?		0.57			
November	324		86		164		.53		.60			
December	517		132		221		.72		.83			
January	634		167		280		.912		1.05			
February	2,530		142		408		1.33		1.38			
March	2,620		260		636		2.07		2.39			
April	800		218		401		1.31		1.46			
May	2,060		148		397		1.29		1.49			
June	2,900		160		592		1.93		2.15			
July	1,840		134		247		.805		.93			
August	1,840		105		341		1.11		1.28			
September	686		116		225		.733		.82			
The year	2,900		59		338		1.10		14.95			

Saluda River near Pelzer, S. C.

Location.- Water-stage recorder half a mile downstream from mouth of Hurricane Creek and 2 miles north of Pelzer, Anderson County. Zero of gage is 727.75 feet above mean sea level from partly adjusted network of levels.

Drainage area.- 411 square miles.

Records available.- September 1929 to September 1934.

Extremes.- Maximum discharge during year, 6,460 second-feet Mar. 5 (gage height, 5.80 feet); minimum, 62 second-feet Nov. 4 (gage height, 0.99 foot); minimum daily discharge, 141 second-feet Nov. 4.  
1929-34: Maximum discharge, 9,400 second-feet Oct. 2, 1929 (gage height, 6.88 feet); minimum, 27 second-feet Oct. 20, 1930 (gage height, about 0.82 foot); minimum daily discharge, 62 second-feet Oct. 25, 1931.

Remarks.- Records good. Discharge estimated Nov. 8-11. Diurnal fluctuation caused by operation of power plants at Piedmont and near Greenville.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	373	285	336	640	560	1,080	938	771	650	552	805	817
2	542	256	319	827	646	721	786	545	759	814	1,240	632
3	572	227	363	569	461	1,660	818	761	1,100	696	660	411
4	288	141	426	609	470	4,150	650	732	1,450	533	252	294
5	295	332	429	628	462	6,220	762	501	2,270	495	464	364
6	262	635	387	727	422	4,530	848	596	1,940	417	574	392
7	224	398	582	798	426	2,520	729	684	1,760	417	436	404
8	342	320	404	1,130	417	1,800	630	578	1,570	532	628	636
9	423	220	401	1,160	404	1,440	1,020	507	1,400	510	916	798
10	299	300	354	654	376	1,320	688	620	1,220	784	432	368
11	278	220	362	532	430	942	738	628	1,090	586	508	390
12	272	279	344	687	477	976	640	487	1,020	554	1,500	456
13	270	377	358	896	382	960	654	454	886	856	589	536
14	297	370	404	570	368	710	580	601	786	705	645	428
15	357	302	405	454	339	830	462	1,820	742	610	404	886
16	352	226	341	450	346	808	1,010	2,670	694	498	396	860
17	406	288	356	447	386	752	1,260	1,820	627	432	374	470
18	528	290	360	416	360	599	1,320	1,290	870	431	413	572
19	472	334	424	456	466	724	1,070	966	1,050	430	1,920	596
20	292	473	988	514	374	985	1,140	792	799	791	624	484
21	314	285	941	442	372	612	1,050	784	674	790	434	428
22	398	726	452	463	432	750	791	783	576	351	424	365
23	509	402	450	413	441	742	840	740	687	794	512	530
24	395	262	456	410	345	759	936	665	769	404	628	398
25	334	347	456	414	504	724	924	1,000	678	417	790	446
26	326	347	946	447	668	767	944	645	598	663	721	421
27	287	366	790	398	2,280	1,510	753	563	480	486	506	482
28	263	338	700	430	1,470	2,340	710	622	504	790	1,060	374
29	336	330	487	422		2,210	738	679	558	417	1,120	612
30	675	318	417	418		1,570	862	669	478	424	912	900
31	362		662	351		1,250		604		400	1,110	
Month					Maximum		Minimum	Mean	Per square mile		Run-off in inches	
October					675		224	366	0.891		1.05	
November					798		141	533	0.810		.90	
December					988		319	488	1.19		1.37	
January					1,160		351	580	1.41		1.63	
February					2,280		339	546	1.33		1.38	
March					6,220		599	1,515	3.69		4.25	
April					1,320		462	850	2.07		2.31	
May					2,670		454	825	2.01		2.32	
June					2,270		478	953	2.32		2.59	
July					814		351	502	1.22		1.41	
August					1,920		252	710	1.73		1.99	
September					900		294	524	1.27		1.42	
The year					6,220		141	684	1.66		22.60	

## Saluda River at Chappells, S. C.

Location.— Water-stage recorder 300 feet below new highway bridge at Chappells, Newberry County, and 8½ miles upstream from mouth of Little River. Zero of gage is 353.80 feet (revised) above mean sea level, from partly adjusted network of levels.

Drainage area.— 1,290 square miles.

Records available.— May 1927 to September 1934.

Extremes.— Maximum discharge during year, 18,000 second-feet June 7 (gage height, 20.94 feet); minimum, 331 second-feet Oct. 9 (gage height, 1.49 feet); minimum daily discharge, 429 second-feet Oct. 9.

1927-34: Maximum discharge, 63,700 second-feet Oct. 2, 1929 (gage height, 31.5 feet); minimum, 184 second-feet Oct. 20, 1931 (gage height, 0.88 foot); minimum daily discharge, 222 second-feet Oct. 3, 1927. Maximum stage known, 34.7 feet Aug. 26, 1908, from U. S. Weather Bureau records.

Remarks.— Records good. Some regulation caused by operation of Ware Shoals power plant.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	546	980	730	1,110	920	3,350	2,320	1,790	1,590	932	1,230	1,640
2	640	621	762	1,550	1,470	2,500	2,010	1,510	3,260	968	1,010	1,350
3	1,430	662	698	1,630	1,590	1,830	2,100	1,350	2,330	1,590	1,550	1,150
4	990	636	698	1,390	1,230	4,100	1,750	1,310	3,860	1,430	1,350	1,140
5	868	504	1,040	1,230	955	7,400	1,670	1,270	7,140	966	828	898
6	728	576	828	1,670	1,310	8,200	1,670	968	9,820	968	636	800
7	546	1,010	794	1,270	1,030	8,800	1,630	1,010	17,100	968	1,040	784
8	628	896	896	2,120	920	6,210	1,430	1,390	11,300	778	1,010	632
9	429	750	845	2,280	885	2,980	2,480	1,080	8,400	1,150	1,010	720
10	769	762	682	2,190	990	2,520	2,320	968	5,050	1,470	1,390	1,250
11	711	682	651	1,670	868	2,260	1,960	968	2,730	2,400	810	1,030
12	677	561	1,010	1,270	940	2,030	1,670	1,040	2,340	3,920	824	864
13	644	561	850	1,350	1,660	1,850	1,510	762	3,170	2,720	1,980	629
14	628	778	762	1,470	1,230	1,850	1,470	794	2,080	1,230	1,670	864
15	514	746	832	1,270	1,030	1,590	1,110	2,110	1,630	1,200	1,200	1,000
16	437	714	865	1,270	1,030	1,470	1,450	2,620	1,390	1,100	1,040	1,640
17	1,730	682	850	1,030	955	1,550	2,140	5,100	1,390	1,230	828	2,480
18	1,880	636	711	990	832	1,230	2,550	4,660	1,430	1,120	746	1,240
19	1,030	518	1,030	1,030	832	1,390	2,550	2,880	1,670	2,970	1,470	963
20	955	576	955	1,030	1,310	2,780	2,420	1,940	1,670	3,670	2,440	1,110
21	885	968	1,710	832	1,030	2,160	2,060	1,590	1,670	1,510	1,970	1,640
22	694	845	1,710	885	955	1,670	1,830	1,850	1,350	811	1,040	1,340
23	611	1,080	1,270	1,230	868	1,510	1,590	1,980	1,040	1,120	896	768
24	1,080	1,080	832	990	920	1,510	1,710	1,650	1,120	1,250	1,680	768
25	955	730	885	920	632	1,270	1,750	1,550	1,270	1,010	1,980	966
26	865	666	955	955	1,950	1,470	1,670	1,630	1,310	896	2,030	752
27	782	651	1,390	1,030	4,900	1,790	1,750	1,350	1,120	1,310	2,520	800
28	711	968	1,670	815	5,520	4,420	1,590	1,160	896	1,350	2,390	898
29	711	794	1,430	780		5,920	1,230	1,670	955	1,430	3,400	898
30	478	714	1,270	1,110		4,660	1,470	2,240	946	1,800	3,720	720
31	1,030		1,030	920		3,020		2,190		1,940	1,760	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October					1,880	429	825	0.640	0.74			
November					1,080	504	745	.573	.64			
December					1,710	651	969	.767	.88			
January					2,280	780	1,267	.982	1.13			
February					5,520	832	1,592	1.08	1.12			
March					8,800	1,230	3,074	2.38	2.74			
April					2,550	1,110	1,829	1.42	1.58			
May					5,100	762	1,754	1.36	1.57			
June					17,100	896	3,368	2.61	2.91			
July					3,920	778	1,522	1.18	1.36			
August					3,720	636	1,531	1.19	1.37			
September					2,480	629	1,072	.83	.93			
The year.					17,100	429	1,614	1.25	16.97			

## Saluda River near Silverstreet, S. C.

Location.— Water-stage recorder 200 feet upstream from new Higgins Ferry Bridge, 1 mile downstream from mouth of Little River, and 2½ miles south of Silverstreet, Newberry County. Zero of gage is 345.13 feet (revised) above mean sea level, from partly adjusted network of levels.

Drainage area.— 1,570 square miles.

Records available.— January 1927 to September 1934.

Extremes.— Maximum discharge during year, 18,000 second-feet June 7 (gage height, 20.84 feet); minimum, 418 second-feet Oct. 9 (gage height, 3.94 feet); minimum daily discharge, 520 second-feet Oct. 16.

1927-34: Maximum discharge (estimated), 83,800 second-feet Oct. 3, 1929 (gage height, 33.97 feet); minimum, 248 second-feet Sept. 29, 1927 (gage height, 3.45 feet); minimum daily discharge, 274 second-feet Sept. 29, 1927.

Remarks.— Records good. Some regulation from operation of power plants upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	650	1,200	785	1,120	1,040	4,190	2,680	1,860	2,800	£10	1,480	1,920
2	507	718	835	1,590	1,640	2,980	2,270	1,760	4,770	£60	985	1,540
3	2,180	740	755	1,610	1,860	2,150	2,270	1,590	5,130	1,580	1,540	1,290
4	1,200	718	752	1,590	1,480	4,340	1,920	1,370	8,010	1,£40	1,480	1,260
5	960	628	1,120	1,260	1,100	8,480	1,860	1,420	8,640	1,150	960	1,040
6	785	628	985	1,610	1,370	8,740	1,760	1,150	12,100	£35	695	810
7	605	965	860	1,540	1,200	8,870	1,810	1,040	15,900	1,040	985	835
8	672	1,100	960	2,150	1,040	8,480	1,540	1,480	16,900	£60	1,070	860
9	540	835	985	2,530	985	3,900	3,020	1,200	16,000	1,£10	985	762
10	660	810	835	2,590	1,070	2,960	2,690	1,100	10,500	1,£40	1,420	1,260
11	785	785	718	1,920	985	2,510	2,150	985	3,820	2,£70	985	1,120
12	695	672	1,040	1,420	1,010	2,330	1,860	1,120	2,690	4,£40	740	1,010
13	672	605	960	1,480	1,840	2,030	1,640	885	3,970	3,480	1,860	740
14	672	785	835	1,690	1,540	2,030	1,590	810	2,840	1,£20	1,980	885
15	560	835	860	1,480	1,200	1,860	1,260	2,100	1,920	1,£00	1,290	1,120
16	520	785	910	1,340	1,100	1,640	1,560	2,900	1,590	1,200	1,100	1,620
17	1,410	740	960	1,150	1,100	1,760	2,390	6,180	1,540	1,£40	860	2,950
18	2,500	718	752	1,100	985	1,420	2,760	5,930	1,590	1,220	1,390	1,580
19	1,290	605	1,040	1,100	860	1,540	2,880	3,550	1,760	3,£10	1,390	1,040
20	1,100	605	985	1,120	1,420	3,410	2,630	2,270	1,810	4,110	2,380	1,150
21	960	960	1,810	985	1,200	2,880	2,630	1,860	1,810	2,£60	2,550	1,590
22	785	985	1,860	910	1,100	2,090	2,090	2,£10	1,540	885	1,200	1,700
23	740	1,150	1,480	1,260	1,010	1,760	1,760	2,640	1,200	1,£40	910	810
24	1,070	1,320	960	1,190	1,010	1,810	1,860	2,480	1,120	1,£70	1,420	810
25	1,120	860	885	1,010	960	1,540	1,860	3,£10	1,390	1,£70	2,£10	1,010
26	935	740	985	1,070	1,750	1,640	1,810	2,770	1,420	960	2,090	£10
27	835	718	1,320	1,150	5,170	1,980	1,860	1,640	1,320	1,200	2,690	835
28	762	985	1,810	960	5,920	4,630	1,760	1,370	935	1,540	2,880	935
29	762	910	1,540	785		6,270	1,370	2,050	910	1,£70	3,£10	965
30	628	785	1,420	1,150		5,760	1,540	4,100	1,100	1,860	4,180	740
31	872		1,150	1,040		5,660		4,680		2,£10	2,090	
Month	Maximum					Minimum			Mean	Per square mile	Run-off in inches	
October	2,800					520			930	0.582	0.68	
November	1,320					605			830	.529	.59	
December	1,860					718			1,071	.682	.79	
January	2,630					785			1,390	.885	1.02	
February	5,920					860			1,534	.977	1.02	
March	8,870					1,420			3,533	2.25	2.59	
April	3,020					1,860			2,036	1.30	1.45	
May	8,180					810			2,249	1.43	1.65	
June	16,900					910			4,565	2.91	3.25	
July	4,340					860			1,658	1.06	1.22	
August	4,180					695			1,619	1.03	1.19	
September	2,960					740			1,168	.744	.83	
The year.	16,900					520			1,882	1.20	16.28	

## Lake Murray near Columbia, S. C.

Location.- Water-stage recorder in intake tower about 500 feet above dam, 10 miles up-stream from mouth of Saluda River, and 11 miles northwest of Columbia, Richland County. Zero of gage is 0.62 foot (revised) below mean sea level.

Drainage area.- 2,400 square miles.

Records available.- August 1929 to September 1934.

Extremes.- Maximum gage height during year, 347.88 feet June 18; minimum, 321.99 feet Feb. 24.  
1929-34: Maximum gage height, 359.23 feet May 16, 1933; minimum, 173.2 feet Aug. 31, 1929, when impounding of water started.

Remarks.- Records excellent.

Gage-height, in feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	341.0	330.1	324.2	323.9	323.4	323.6	333.6	335.8	340.1	347.2	344.8	340.6
2	340.8	329.5	324.0	323.9	323.4	324.0	333.7	335.8	340.5	347.1	344.6	340.7
3	340.4	329.0	324.1	323.9	323.5	324.2	333.8	335.7	341.0	347.1	344.5	340.7
4	340.1	328.5	324.1	323.9	323.7	324.7	334.0	335.6	341.6	347.2	344.4	340.6
5	339.8	328.5	324.0	323.9	323.7	325.9	334.0	335.6	342.5	347.2	344.3	340.2
6	339.3	328.2	323.8	323.9	323.6	326.8	334.0	335.6	343.2	347.1	344.2	340.1
7	339.0	327.7	323.8	324.1	323.6	327.5	334.1	335.7	343.9	347.0	343.8	339.9
8	338.9	327.2	323.8	324.2	323.4	328.2	334.2	335.6	344.6	346.9	343.5	339.9
9	338.6	326.9	323.8	324.3	323.2	328.7	334.4	335.6	346.0	346.8	343.3	339.9
10	338.1	326.7	323.8	324.4	323.0	329.0	334.5	335.5	347.0	346.6	343.1	339.8
11	337.6	326.6	323.8	324.0	323.1	329.4	334.6	335.4	347.3	346.5	343.1	339.7
12	337.1	326.6	323.7	324.6	323.2	329.6	334.6	335.4	347.4	346.3	343.1	339.5
13	336.7	326.5	323.6	324.8	323.0	329.7	334.6	335.4	347.5	345.6	343.0	339.4
14	336.4	326.3	323.5	324.9	322.8	329.7	334.6	335.4	347.6	346.7	342.8	339.3
15	336.3	326.0	323.4	324.9	322.6	329.8	334.7	335.4	347.6	346.7	342.6	339.3
16	336.1	325.8	323.4	324.9	322.5	329.9	334.8	335.5	347.7	346.6	342.2	339.4
17	335.7	325.5	323.4	324.8	322.5	330.0	335.0	335.7	347.8	346.4	342.0	339.6
18	335.5	325.4	323.5	324.7	322.6	330.0	335.1	336.1	347.8	346.1	341.9	339.6
19	335.1	325.4	323.3	324.7	322.7	330.1	335.2	336.4	347.8	346.0	341.9	339.6
20	334.6	325.3	323.2	324.7	322.6	330.4	335.3	336.6	347.8	346.0	342.0	339.6
21	334.2	325.1	323.2	324.7	322.4	330.8	335.4	336.7	347.8	346.1	341.8	339.6
22	334.2	324.9	323.2	324.7	322.2	331.0	335.6	336.8	347.8	346.1	341.6	339.7
23	333.9	324.8	323.4	324.6	322.0	331.1	335.7	336.9	347.8	346.0	341.2	339.7
24	333.4	324.7	323.4	324.4	322.0	331.2	335.7	337.0	347.8	345.8	341.0	339.6
25	332.8	324.6	323.4	324.2	322.1	331.4	335.6	337.2	347.8	345.6	341.0	339.3
26	332.3	324.7	323.4	324.0	322.4	331.5	335.6	337.4	347.7	345.4	341.0	338.9
27	331.7	324.6	323.5	324.0	322.7	331.6	335.6	337.5	347.5	345.2	341.2	338.5
28	331.3	324.4	323.5	324.1	323.2	332.0	335.6	337.6	347.4	345.2	341.2	338.1
29	331.2	324.2	323.6	324.0		332.4	335.7	337.9	347.2	345.2	341.0	337.7
30	331.0	324.2	323.7	323.8		332.9	335.8	338.6	347.2	345.1	340.9	337.6
31	330.6		323.8	323.5		333.3		339.6		345.0	340.7	

## Saluda River near Columbia, S. C.

Location.- Water-stage recorder a quarter of a mile upstream from site of old Saluda mill and 2 miles upstream from mouth, at Columbia, Richland County. Zero of gage is 149.53 feet (revised) above sea level.

Drainage area.- 2,450 square miles.

Records available.- August 1925 to September 1934.

Extremes.- Maximum discharge during year, 11,500 second-feet Nov. 2 (gage height, 6.44 feet); minimum, 28 second-feet Dec. 11; minimum daily discharge, 43 second-feet Nov. 28 and Dec. 10.

1925-34: Maximum discharge, 67,000 second-feet Oct. 2, 1929 (gage height, 15.22 feet); minimum, 11 second-feet July 13, 1930; minimum daily discharge, 12 second-feet July 13, 1930.

Remarks.- Records good. Considerable regulation from storage and power-plant operations at Lake Murray.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,140	8,110	2,210	1,300	2,530	104	140	2,790	1,470	747	4,850	982
2	7,030	7,300	988	2,170	552	236	370	3,460	770	3,360	4,670	76
3	7,340	2,640	214	1,310	301	130	888	3,400	876	3,100	2,620	3,260
4	7,270	3,350	2,350	2,050	74	78	1,080	2,320	3,380	1,080	3,000	5,800
5	7,790	1,320	2,330	1,320	1,890	323	1,890	597	3,100	3,850	2,800	4,940
6	8,240	7,280	2,130	382	2,340	142	1,820	127	2,130	4,240	6,280	1,920
7	3,230	7,520	1,760	55	2,620	232	526	1,950	1,680	1,950	7,090	3,350
8	2,180	5,550	1,340	723	3,550	419	108	2,280	560	2,540	6,690	1,040
9	7,830	3,850	408	1,200	4,180	472	1,560	2,470	296	4,710	6,080	736
10	9,200	3,260	45	1,140	702	449	1,690	2,480	242	4,440	3,180	2,910
11	8,430	1,220	1,780	1,030	238	177	1,810	2,000	718	4,420	1,050	4,590
12	7,270	62	2,330	852	3,660	799	2,190	650	1,420	3,500	468	4,110
13	6,750	3,190	1,960	303	4,410	1,180	1,650	70	2,760	1,640	5,490	2,810
14	2,750	3,960	1,960	49	3,860	1,720	484	2,000	2,670	1,010	6,390	1,090
15	2,070	3,870	2,130	1,730	3,620	1,190	53	1,970	531	1,130	6,740	364
16	7,790	3,850	338	2,010	1,860	574	1,910	1,700	115	5,190	6,300	149
17	7,380	3,140	44	2,470	303	196	2,620	1,430	81	6,760	3,250	931
18	7,560	1,100	2,300	2,050	48	214	2,760	821	1,460	6,180	2,450	1,350
19	8,210	249	2,770	1,730	1,800	421	2,290	268	1,660	5,440	589	983
20	8,480	3,360	2,240	364	3,180	514	1,640	46	2,540	3,970	3,990	1,070
21	4,090	3,450	956	328	3,320	336	503	1,660	3,020	1,380	5,430	1,340
22	2,190	3,240	738	2,650	4,530	257	86	2,400	327	1,440	6,750	519
23	8,070	2,900	210	2,780	1,610	137	1,750	1,610	165	4,560	6,550	444
24	8,690	1,990	1,260	3,910	606	144	2,250	1,700	841	5,600	3,520	5,090
25	8,750	492	1,410	4,390	64	60	2,360	626	3,970	5,660	988	7,530
26	8,730	43	392	1,890	301	382	2,320	209	4,340	4,590	1,250	7,410
27	8,510	3,560	336	888	190	608	2,270	54	5,100	2,970	4,560	7,450
28	4,040	2,310	405	848	131	382	506	1,740	4,560	1,560	4,690	8,140
29	1,150	2,540	282	3,820		290	77	2,310	1,980	1,760	6,230	4,220
30	6,630	486	136	3,810		219	1,320	1,820	1,440	4,010	5,980	1,820
31	7,500		56	3,770		351		1,760		5,110	6,260	
Month	Maximum		Minimum		Mean		Per square mile		Run-off in inches			
October	9,200		1,150		6,364		2.60		3.00			
November	8,640		43		3,410		1.39		1.55			
December	2,770		43		1,219		.498		.57			
January	4,390		49		1,707		.697		.80			
February	4,530		45		1,883		.769		.80			
March	1,720		60		411		.168		.19			
April	2,760		53		1,364		.557		.62			
May	3,460		46		1,572		.642		.74			
June	5,100		91		1,800		.735		.82			
July	6,760		747		3,469		1.42		1.64			
August	7,090		468		4,394		1.79		2.06			
September	8,140		76		2,978		1.22		1.36			
The year	9,200		43		2,555		1.04		14.15			

## South Fork of Edisto River near Denmark, S. C.

Location.- Water-stage recorder at State highway bridge 200 feet downstream from Seaboard Air Line Railway bridge, 1½ miles downstream from mouth of Little River, and 4½ miles north of Denmark, Bamberg County. Zero of gage is 165.19 feet above mean sea level, unadjusted.

Drainage area.- 720 square miles.

Records available.- August 1931 to September 1934.

Extremes.- Maximum discharge during year, 2,850 second-feet June 5 (gage height, 8.51 feet); minimum, 315 second-feet Aug. 8, Sept. 6.  
1931-34: Maximum discharge, about 2,930 second-feet Aug. 12, 1932 (gage height, 8.47 feet); minimum, 223 second-feet June 25, 1933.

Remarks.- Records good.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	323	426	470	500	626	885	695	1,200	2,260	323	458	458
2	323	426	470	520	695	845	695	1,260	2,260	323	470	436
3	356	458	470	568	730	805	695	1,260	2,060	339	470	399
4	373	470	470	568	730	885	730	1,110	2,520	364	446	364
5	362	470	470	568	730	1,020	768	1,020	2,850	373	399	331
6	399	470	470	595	730	1,110	730	970	2,780	373	348	315
7	408	470	470	660	730	1,160	695	928	2,580	390	331	323
8	408	470	470	695	695	1,110	660	885	2,060	417	315	348
9	399	485	485	730	695	1,020	660	768	1,820	436	331	362
10	373	485	500	730	695	1,020	730	660	1,540	520	364	399
11	339	485	485	695	660	1,160	695	540	1,520	595	436	408
12	331	485	485	660	660	1,260	695	500	1,470	568	730	399
13	351	485	465	628	730	1,200	660	470	1,520	520	585	399
14	323	470	500	628	730	1,110	660	458	1,470	470	695	399
15	323	458	500	568	730	1,020	628	458	1,420	446	540	390
16	323	446	500	540	695	928	628	485	1,200	417	500	436
17	356	446	520	540	730	928	730	540	1,020	399	470	470
18	362	458	520	520	730	928	1,020	568	885	373	426	458
19	390	458	520	520	768	928	1,420	595	845	348	362	470
20	399	458	540	520	845	885	1,580	595	695	364	364	470
21	417	470	540	520	845	845	1,580	660	628	392	356	485
22	426	470	540	500	845	845	1,420	768	595	399	362	485
23	436	470	540	500	845	768	1,200	805	568	408	470	500
24	446	470	540	520	805	730	1,110	805	540	408	540	485
25	470	470	540	500	805	695	1,110	805	540	408	500	436
26	470	470	520	520	845	660	1,060	885	520	426	470	390
27	458	470	520	540	928	695	928	845	458	436	470	364
28	446	485	540	528	928	845	845	885	399	426	520	339
29	436	485	620	568		845	885	1,260	364	408	540	348
30	426	485	500	595		805	1,110	1,470	348	408	500	348
31	428		500	525		730		1,940		436	470	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	470			323			390			0.542	0.62	
November	485			426			467			.649	.72	
December	540			470			503			.699	.81	
January	730			500			577			.801	.92	
February	928			628			756			1.05	1.09	
March	1,260			660			925			1.28	1.48	
April	1,580			628			901			1.25	1.40	
May	1,940			458			852			1.18	1.36	
June	2,850			348			1,321			1.83	2.04	
July	595			323			416			.578	.67	
August	885			315			470			.653	.75	
September	500			315			408			.567	.63	
The year	2,850			315			664			.922	12.49	



## Seneca River near Anderson, S. C.

Location.- Water-stage recorder at highway bridge  $1\frac{1}{2}$  miles downstream from mouth of Deep Creek, 4 miles upstream from confluence of Seneca and Tugaloo Rivers, and 10 $\frac{1}{2}$  miles west of Anderson, Anderson County.

Drainage area.- 1,026 square miles (revised).

Records available.- October 1931 to September 1954.

Extremes.- Maximum discharge during year, 19,900 second-feet Mar. 5 (gage height, 12.16 feet); minimum, about 110 second-feet Nov. 26; minimum daily discharge, 502 second-feet Oct. 15.

1931-34: Maximum discharge, 37,600 second-feet Oct. 18, 1932 (gage height, 17.73 feet); minimum, that of Nov. 26, 1933; minimum daily discharge, 371 second-feet Oct. 15, 1931.

Maximum known stage, 25 feet Aug. 17, 18, 1928 (discharge, estimated, 77,000 second-feet).

Remarks.- Records good. Diurnal fluctuation caused by operation of power plant upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	546	716	875	1,770	1,270	2,040	2,120	2,530	1,420	1,010	1,970	1,330
2	898	723	593	2,300	1,840	2,130	2,120	1,960	2,100	1,550	1,700	1,210
3	856	904	726	1,920	1,350	5,870	1,840	1,700	3,980	1,770	925	1,260
4	788	1,040	1,340	1,560	1,200	16,200	1,840	1,650	3,810	1,380	1,050	1,010
5	716	1,050	1,180	1,610	1,280	16,900	1,670	1,470	4,950	1,450	1,430	982
6	752	1,600	848	2,110	1,070	7,180	1,700	1,300	5,520	1,180	1,360	986
7	503	1,290	929	2,260	1,080	4,140	1,380	1,550	6,210	1,400	1,460	1,200
8	634	879	1,060	4,290	1,050	3,400	1,580	1,360	4,220	968	2,290	3,190
9	736	855	744	2,620	1,020	2,930	1,940	1,290	4,680	1,240	1,470	1,440
10	667	896	871	1,970	924	2,610	2,000	1,300	3,950	1,660	1,030	1,250
11	617	606	924	1,640	828	2,420	1,570	1,330	3,030	2,490	1,150	986
12	636	772	969	1,590	1,290	2,270	1,470	1,260	2,420	2,560	2,390	935
13	774	914	788	1,680	1,230	2,040	1,440	1,140	2,170	2,040	1,920	929
14	596	821	912	1,840	1,060	1,990	1,230	1,380	1,890	1,690	1,220	2,550
15	502	723	906	1,460	1,000	1,910	1,310	2,960	1,690	1,230	1,390	3,500
16	790	750	675	1,310	962	1,870	2,350	7,640	1,650	1,660	1,280	1,630
17	1,390	816	810	1,250	793	1,650	2,680	3,890	1,560	1,300	902	1,770
18	1,390	605	880	1,210	918	1,640	3,080	2,820	2,480	1,080	1,140	1,470
19	865	675	1,070	1,180	1,220	1,830	2,470	2,160	2,810	5,210	2,170	1,170
20	906	819	2,020	988	1,010	2,200	2,610	1,760	1,910	2,320	1,650	1,070
21	599	799	1,980	1,080	986	2,080	2,130	1,770	1,590	1,320	1,100	1,690
22	652	1,570	1,380	1,170	902	1,940	1,870	1,550	1,500	1,020	998	1,620
23	1,180	1,510	968	1,150	975	1,700	1,900	1,870	1,190	1,080	1,060	1,100
24	915	1,050	1,010	986	733	1,580	1,760	1,750	1,450	1,150	2,410	1,190
25	860	806	974	1,040	1,120	2,080	2,760	2,840	1,630	1,050	2,040	1,040
26	786	611	1,840	1,170	7,770	2,130	2,140	2,030	1,260	1,690	1,460	1,430
27	843	855	2,560	990	7,120	3,440	1,880	1,470	1,230	1,920	1,320	1,990
28	695	844	1,550	1,050	2,860	7,110	1,340	1,500	1,180	1,650	1,550	2,180
29	624	698	1,220	1,120		3,740	1,600	1,460	1,240	1,620	1,940	4,220
30	884	764	1,130	1,020		2,710	2,080	1,450	1,420	1,490	2,670	4,090
31	717		1,070	896		2,160		1,510		1,230	2,000	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				1,390	502	794	0.764		0.88			
November				1,600	605	900	0.877		.98			
December				2,560	593	1,116	1.09		1.26			
January				4,290	896	1,562	1.52		1.75			
February				7,770	733	1,602	1.56		1.62			
March				16,900	1,680	3,703	3.61		4.16			
April				3,080	1,230	1,926	1.88		2.10			
May				7,640	1,140	1,989	1.94		2.24			
June				6,210	1,180	2,539	2.47		2.76			
July				5,210	968	1,653	1.58		1.83			
August				2,670	902	1,553	1.52		1.75			
September				4,220	929	1,677	1.63		1.82			
The year				16,900	502	1,750	1.71		23.15			

## Augusta Canal near Augusta, Ga.

**Location.**- Two water-stage recorders at upper end of Augusta Canal. Upper gage is 1,000 feet below diversion dam, 14 miles downstream from Stevens Creek power dam, and 5 3/8 miles northwest of Augusta, Richmond County. Lower gage is 3 5/8 miles downstream from upper gage. Elevation of zero of gages is 48.58 feet (city of Augusta datum) and 149.42 feet above mean sea level.

**Records available.**- November 1930 to September 1934.

**Extremes.**- Maximum mean discharge during year, 3,440 second-feet Feb. 13; minimum, 616 second-feet July 15.  
1930-34: Maximum mean daily discharge, that of Feb. 13, 1934; minimum, estimated, 200 second-feet Apr. 28 to May 3, 1933.

**Remarks.**- Records good. Discharge estimated May 29 to June 5, June 23-30, July 4-11. Canal diverts water for power and water supply from the Savannah River at dam 1 mile downstream from Stevens Creek Dam. Waste water from power houses returns to river by three connections above Thirteenth Street highway bridge. Water is also pumped from canal for water supply for city of Augusta, and a small amount of water entering Beaverdam Ditch is discharged into river about 13 miles downstream from Augusta.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,330	1,590	2,870	2,320	3,140	3,180	1,730	3,180	2,800	1,320	3,090	2,000
2	2,620	2,090	1,860	2,990	3,070	3,170	3,220	3,170	1,920	2,540	3,190	1,360
3	1,930	2,280	1,630	3,070	1,970	2,100	3,240	2,920	1,710	2,560	2,340	1,780
4	2,220	1,740	2,900	3,020	1,630	2,510	3,200	2,750	3,120	1,700	1,600	2,870
5	2,780	1,050	2,880	2,780	3,040	2,210	3,230	1,880	3,300	2,600	1,530	2,430
6	2,710	2,930	2,980	1,820	3,110	2,350	3,120	1,690	2,750	2,000	3,260	2,620
7	1,680	2,650	2,500	1,720	3,020	3,080	2,200	3,240	2,610	1,700	3,080	2,560
8	1,480	3,210	2,310	2,990	3,190	3,100	2,000	3,190	1,770	1,600	3,210	1,650
9	2,570	3,050	1,920	3,080	3,190	3,360	3,260	3,120	1,710	3,000	3,130	1,530
10	1,980	3,010	1,700	2,990	1,820	2,080	3,300	2,870	1,690	3,200	2,280	2,620
11	1,610	1,670	3,000	2,810	1,840	2,100	3,220	2,620	3,070	3,200	1,450	2,380
12	2,570	1,650	2,680	2,430	3,130	3,180	3,050	1,700	3,230	3,140	880	2,360
13	2,670	3,030	2,530	1,690	3,440	3,220	3,100	1,690	2,900	2,670	3,280	2,870
14	2,070	2,500	2,620	1,640	3,330	3,270	1,860	3,060	2,870	1,360	3,100	2,620
15	1,910	2,310	2,320	3,080	2,980	3,100	1,620	3,270	2,010	616	3,130	1,710
16	2,880	2,880	1,840	2,980	2,850	3,210	3,100	3,270	2,220	2,980	3,100	1,370
17	3,070	3,030	1,570	3,050	1,700	1,790	3,030	2,790	2,100	3,250	2,170	2,810
18	3,020	1,970	2,860	3,030	1,730	1,110	3,010	2,660	2,940	3,140	1,820	2,560
19	3,000	1,750	2,790	3,130	3,230	3,210	3,160	1,830	3,210	3,150	1,660	2,720
20	2,560	2,820	2,950	1,870	3,120	3,360	2,980	1,770	3,100	2,460	3,140	2,730
21	1,650	2,260	2,830	1,670	3,130	3,200	1,860	3,160	2,910	1,660	3,100	2,530
22	1,500	2,560	2,290	3,140	3,250	3,220	1,680	3,200	2,070	1,430	2,690	1,690
23	2,230	3,060	1,900	2,990	3,120	3,190	3,100	3,200	1,800	3,000	2,200	1,860
24	2,070	2,910	1,910	3,000	1,870	1,680	3,040	3,160	1,600	3,070	1,980	2,690
25	2,030	1,870	1,520	3,150	1,700	1,410	3,090	2,910	3,000	3,300	1,440	1,970
26	1,990	1,730	1,760	3,070	3,270	3,140	3,220	1,750	3,200	2,290	1,170	2,640
27	1,970	2,640	2,360	1,820	3,390	3,310	3,160	1,690	3,200	2,160	3,350	2,910
28	1,440	2,600	2,680	1,670	3,250	3,270	1,650	3,010	3,200	1,710	3,020	3,020
29	1,470	2,490	2,620	3,060		3,060	1,420	3,110	2,200	1,600	3,230	1,640
30	1,960	2,830	1,880	2,710		2,770	3,020	3,200	1,400	3,230	3,160	1,700
31	1,630		1,710	2,940		1,680		3,200		3,190	2,790	
Month							Maximum	Minimum	Mean		Per square mile	Run-off in inches
October							3,070	1,330	2,148			
November							3,210	1,050	2,405			
December							3,000	1,520	2,328			
January							3,150	1,640	2,636			
February							3,440	1,630	2,768			
March							3,360	1,110	2,730			
April							3,300	1,420	2,729			
May							3,270	1,590	2,715			
June							3,300	1,400	2,520			
July							3,300	616	2,414			
August							3,350	880	2,535			
September							3,020	1,360	2,253			
The year.							3,440	616	2,513			

## Altamaha River at Doctortown, Ga.

Location.— Water-stage recorder at Atlantic Coast Line Railroad bridge at Doctortown, Wayne County, about 4½ miles northeast of Jesup. Prior to Dec. 5 staff gage with same datum at same location. Zero of gage is 28.77 feet above mean sea level.

Drainage area.— 13,900 square miles.

Records available.— October 1931 to September 1934.

Extremes.— Maximum discharge during year, 46,400 second-feet Mar. 16-18; maximum gage height, 8.13 feet Mar. 17; minimum recorded, 2,760 second-feet Oct. 15 (gage height, -1.16 feet).

1931-34: Maximum discharge, 46,400 second-feet Mar. 4, 1933, and Mar. 16-18, 1934; maximum gage height, 8.13 feet Mar. 17, 1934; minimum discharge, 1,760 second-feet Oct. 8, 9, 14, 15, 1931 (gage height, -2.3 feet).

Maximum known stage, 14.6 feet Jan. 23, 1925 (discharge, estimated, 250,000 second-feet).

Remarks.— Records good except those estimated Feb. 8, 9, 11-16, 18, 19, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,640	4,150	4,060	4,330	6,340	11,100	13,800	12,200	17,700	8,000	3,970	4,960
2	3,560	3,970	3,880	4,420	6,490	11,400	13,800	12,700	21,600	7,470	3,970	5,080
3	3,480	3,720	3,600	4,520	6,660	11,800	13,800	12,700	23,800	6,970	4,150	4,960
4	3,400	3,640	3,720	4,620	6,660	12,200	13,800	12,700	25,000	6,490	4,730	4,840
5	3,320	3,560	3,720	4,620	6,810	12,700	14,500	13,200	25,000	6,340	5,560	4,520
6	3,320	3,560	3,600	4,840	6,970	14,500	14,500	13,800	26,200	6,660	6,190	4,330
7	3,320	3,560	3,800	5,080	7,300	16,800	13,800	14,500	27,500	6,970	6,050	4,240
8	3,320	3,640	3,880	5,440	7,300	18,600	13,800	15,200	26,200	6,970	6,800	4,150
9	3,320	3,640	3,970	5,680	7,130	21,600	12,700	15,200	25,000	7,300	5,560	3,970
10	3,240	3,640	4,060	5,680	7,130	25,000	11,800	16,800	25,000	7,470	5,320	3,880
11	3,160	3,560	4,150	5,680	7,300	27,500	11,100	16,800	22,700	7,820	6,060	3,880
12	3,080	3,480	4,240	5,800	7,470	28,800	10,800	16,800	22,700	7,640	7,130	3,720
13	3,000	3,560	4,330	5,920	7,640	31,700	10,800	14,500	23,800	7,300	7,470	3,560
14	2,920	3,560	4,420	6,190	7,820	37,500	10,600	12,200	23,800	7,470	7,820	3,480
15	2,840	3,480	4,520	6,340	8,180	43,400	10,600	10,600	23,800	7,820	7,640	3,460
16	2,840	3,400	4,420	6,190	8,370	46,400	10,300	9,150	23,800	8,180	6,970	3,720
17	3,000	3,400	4,330	6,050	8,750	46,400	9,810	8,750	25,000	8,370	6,340	3,640
18	3,400	3,320	4,240	6,050	8,950	46,400	9,360	8,370	25,000	8,000	6,340	3,560
19	3,720	3,240	4,240	6,050	9,360	43,400	9,150	8,560	26,200	7,640	6,660	3,560
20	5,200	3,240	4,240	6,050	9,580	40,500	9,360	8,150	27,500	6,970	6,660	3,680
21	6,190	3,240	4,240	6,050	9,580	37,500	9,580	9,580	27,500	6,340	6,190	4,520
22	6,490	3,320	4,240	6,050	9,580	33,100	10,300	10,300	27,500	6,050	5,920	5,080
23	6,050	3,400	4,150	6,190	9,810	28,800	10,800	10,800	23,800	5,560	5,440	5,440
24	5,680	3,480	4,150	6,190	9,810	25,000	11,400	11,400	20,600	5,200	4,960	5,440
25	5,320	3,480	4,520	5,920	9,810	22,700	11,800	12,200	16,600	4,840	4,620	5,560
26	4,960	3,560	5,200	5,560	10,000	19,600	12,200	12,200	16,800	4,840	4,520	5,560
27	4,730	3,720	5,440	5,320	10,300	17,700	12,700	12,200	14,500	4,840	4,420	5,440
28	4,520	3,800	5,320	5,200	10,800	16,800	13,200	11,800	11,800	4,620	4,730	4,730
29	4,330	3,970	4,960	5,320		16,000	13,200	12,700	10,300	4,330	4,960	4,240
30	4,330	4,150	4,730	5,800		15,200	12,700	12,700	8,950	4,150	4,730	3,880
31	4,330		4,520	6,050		14,500		14,500		4,060	4,730	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	6,490			2,840			4,000			0.288	0.33	
November	4,150			3,240			3,580			.258	.29	
December	5,440			3,720			4,300			.309	.36	
January	6,190			4,330			5,580			.402	.46	
February	10,800			6,340			8,290			.596	.62	
March	14,500			9,150			11,900			1.84	2.12	
April	16,800			8,370			12,400			.892	1.03	
May	27,500			8,950			22,300			1.60	1.78	
June	8,370			4,060			6,540			.471	.54	
July	7,820			3,970			5,660			.407	.47	
August	5,560			3,480			4,380			.315	.35	
September												
The year.	46,400			2,840			9,540			.686	9.31	

Ocmulgee River at Macon, Ga.

**Location.**- Water-stage recorder at Fifth Street Bridge in city of Macon, Flibb County. Prior to June 25 water-stage recorder with same datum at Central of Georgia Railway bridge 500 feet downstream. Zero of gage is 289.38 feet above mean sea level.

**Drainage area.**- 2,290 square miles.

**Records available.**- January 1893 to September 1913, October 1931 to September 1934.

**Extremes.**- Maximum discharge during year, 17,000 second-feet Mar. 6 (gage height, 17.30 feet); minimum, 351 second-feet Nov. 10 (gage height, 1.47 feet). 1893-1913, 1931-34: Maximum discharge, 50,900 second-feet Mar. 1, 1902; maximum gage height, 23.5 feet Mar. 16, 1913; minimum discharge, 192 second-feet Nov. 9, 16, 23, 1931; minimum gage height, that of Nov. 10, 1933. Maximum stage known, 25.4 feet Jan. 19, 1925 (estimated discharge from extension of rating curve, 51,000 second-feet).

**Remarks.**- Records fair. Record of stage for Oct. 1-5 and June 19-23 furnished by U. S. Weather Bureau. Discharge interpolated June 24. Flow partly regulated by power plant near Jackson, Ga. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	470	690	1,240	960	985	2,870	1,160	4,020	1,660	1,060	2,380	938
2	430	735	1,160	1,880	1,180	2,540	1,040	2,920	1,880	1,110	2,160	802
3	600	712	1,260	2,040	1,080	1,990	2,040	2,160	1,660	1,460	1,820	758
4	600	622	1,140	1,880	1,040	9,420	2,210	1,960	4,260	2,160	1,770	712
5	510	668	1,310	1,510	1,010	13,800	2,210	1,820	4,500	1,360	2,320	735
6	510	690	1,410	1,660	960	16,100	2,380	1,180	4,740	2,100	1,260	735
7	565	712	1,360	1,210	870	11,300	2,320	1,210	6,180	1,880	1,990	712
8	494	712	1,360	1,260	870	4,740	1,560	2,260	13,800	1,160	1,940	712
9	542	458	1,210	1,660	870	3,560	1,880	1,610	10,500	2,040	1,720	668
10	546	420	1,010	2,040	848	3,140	2,210	1,310	7,060	2,820	1,360	645
11	542	712	1,010	1,880	870	2,650	2,210	1,210	3,780	2,480	1,010	668
12	542	600	1,160	1,770	1,110	1,360	2,260	1,040	3,510	2,160	1,660	690
13	600	690	1,260	2,260	1,770	2,700	2,260	985	3,480	1,940	1,820	690
14	565	735	1,240	1,160	2,100	2,760	2,210	985	3,660	2,260	2,600	690
15	560	915	1,410	1,040	2,100	2,650	985	1,110	2,980	2,100	2,480	758
16	578	1,110	1,160	1,820	1,990	2,650	1,360	1,660	1,560	1,610	1,720	10,500
17	712	1,040	1,040	1,720	1,080	2,480	2,700	2,210	2,100	1,770	1,360	6,180
18	668	1,080	985	1,660	1,010	1,080	2,650	2,600	2,980	1,310	538	1,560
19	622	1,010	1,360	1,040	1,060	1,010	2,540	2,430	3,420	1,160	1,010	1,010
20	600	960	1,720	985	1,720	2,760	4,320	1,310	2,870	1,080	892	915
21	622	1,210	1,560	960	1,360	2,870	4,080	1,160	2,600	1,140	1,310	848
22	578	1,410	1,460	938	1,240	2,700	1,770	2,040	2,650	1,080	1,410	802
23	780	1,310	1,560	1,080	1,060	2,430	1,260	1,720	2,700	958	1,060	780
24	758	1,260	1,040	915	915	2,320	1,990	1,510	2,370	1,180	938	780
25	645	1,080	960	960	802	1,210	5,640	735	2,040	1,110	825	780
26	645	1,010	960	1,140	2,430	1,010	3,720	1,040	2,160	1,210	848	758
27	600	1,010	985	1,080	4,320	2,210	2,760	1,060	2,040	1,560	825	758
28	578	1,010	985	960	3,510	3,720	2,540	1,090	1,660	1,410	1,460	825
29	622	1,040	1,240	892	2,980	2,980	1,460	1,210	1,460	985	1,610	780
30	600	1,180	1,360	870	2,480	3,780	1,410	1,080	1,080	802	938	758
31	645		985	938		2,260		1,360		1,880	870	
Month	Maximum				Minimum		Mean		Per square mile		Run-off in inches	
October	780				430		590		0.258		0.30	
November	1,410				420		893		.390		.44	
December	1,720				960		1,220		.533		.61	
January	2,260				870		1,360		.594		.68	
February	4,320				802		1,430		.624		.65	
March	16,100				1,010		3,790		1.66		1.91	
April	5,640				985		2,380		1.04		1.16	
May	4,020				735		1,620		.707		.82	
June	13,800				1,080		3,570		1.56		1.74	
July	2,820				802		1,560		.681		.79	
August	2,600				825		1,490		.561		.75	
September	10,500				645		1,300		.568		.63	
The year	16,100				420		1,770		.773		10.48	

## Oconee River at Dublin, Ga.

Location.- Water-stage recorder at bridge on U. S. Highway 80 in Dublin, Laurens County. From Apr. 14, 1932, to July 17, 1934, water-stage recorder at Wrightsville & Tennille Railroad bridge 400 feet downstream. Prior to Apr. 14, 1932, gage heights from U. S. Weather Bureau gage at highway bridge. Zero of gages is 148.58 feet above mean sea level (datum of gages lowered 3.00 feet July 14).

Drainage area.- 4,350 square miles.

Records available.- 1894 to 1898 (fragmentary); February 1898 to December 1913, October 1931 to September 1934.

Extremes.- Maximum discharge during year, 23,500 second-feet Mar. 9 (gage height, 19.07 feet); minimum, 603 second-feet Oct. 11, 12 (gage height, 0.89 foot).  
1898-1913, 1931-34: Maximum discharge, 57,200 second-feet Mar. 18, 19, 1913 (gage height, 29.5 feet, present datum); minimum, 550 second-feet Oct. 22, 23, 1931 (gage height, 0.9 foot, present datum).  
Maximum stage known, 32.8 feet (present datum) Jan. 21, 1925 (estimated discharge, 88,600 second-feet).

Remarks.- Records excellent except those for period Oct. 1-16, which are good. Daily stage Oct. 1-4, July 10-16, from graph based on U. S. Weather Bureau gage readings. Gage-height records collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	776	1,210	1,360	1,830	2,390	7,880	6,000	11,200	5,060	1,620	2,320	1,900
2	776	1,180	1,360	1,830	2,920	8,340	4,710	11,900	4,710	1,580	4,120	1,660
3	776	1,210	1,360	2,460	3,480	7,990	4,120	13,000	4,280	1,580	5,060	1,970
4	747	1,210	1,360	3,080	3,560	8,100	3,800	14,000	4,200	1,760	3,880	1,720
5	718	1,180	1,360	3,000	3,480	11,000	3,560	12,000	6,100	2,680	2,390	1,460
6	634	1,210	1,400	2,530	3,000	12,300	3,480	6,900	8,340	3,080	1,990	1,580
7	683	1,270	1,590	2,520	2,600	14,500	3,560	4,710	9,450	2,760	1,980	1,460
8	776	1,240	1,690	2,460	2,530	19,600	3,800	4,040	10,300	2,320	2,530	1,360
9	712	1,330	1,660	2,920	2,320	23,200	3,640	3,640	12,000	2,250	3,640	1,330
10	672	1,450	1,620	3,480	2,180	22,400	4,280	3,400	14,100	2,320	3,480	1,240
11	629	1,330	1,620	3,640	2,180	19,800	4,540	3,080	16,100	2,180	2,920	1,180
12	608	1,270	1,550	2,920	2,390	16,300	4,120	2,760	17,200	1,900	2,600	1,150
13	613	1,210	1,520	2,530	2,920	10,700	3,560	2,600	17,000	2,180	2,250	1,120
14	639	1,180	1,520	2,460	3,960	6,800	3,080	2,460	15,100	2,040	2,320	1,070
15	618	1,150	1,490	2,680	4,370	5,510	2,840	2,530	12,000	2,530	3,160	1,150
16	672	1,180	1,490	2,760	4,120	4,800	3,240	3,080	7,550	3,320	3,560	1,300
17	1,040	1,210	1,550	2,460	3,560	4,370	4,540	6,200	4,620	2,540	2,680	2,680
18	2,040	1,180	1,550	2,250	3,080	4,040	6,100	8,100	3,680	2,110	1,900	3,000
19	2,250	1,180	1,550	2,110	3,000	3,880	7,220	8,220	4,280	2,250	1,620	2,600
20	2,320	1,180	1,550	2,040	3,080	4,120	8,700	7,550	5,510	2,110	1,620	2,110
21	1,630	1,180	2,040	2,040	3,080	4,710	9,560	5,420	5,510	1,900	1,620	1,660
22	1,520	1,300	3,080	1,970	3,160	5,420	9,820	4,120	4,040	1,660	1,760	1,450
23	1,360	1,460	3,240	1,970	3,160	6,000	7,880	3,560	2,920	1,830	1,830	1,300
24	1,460	1,520	2,680	1,900	3,000	5,150	5,600	3,400	2,460	1,760	1,690	1,210
25	1,450	1,580	2,250	2,110	2,840	4,280	4,880	3,560	2,180	1,660	1,660	1,120
26	1,690	1,970	1,970	2,760	2,920	3,880	7,440	3,640	2,040	1,490	1,580	1,120
27	1,900	1,760	1,900	3,320	4,620	3,720	8,700	3,480	2,040	1,690	2,040	1,240
28	1,660	1,520	1,830	3,080	7,000	4,460	9,560	3,000	2,110	1,450	2,680	1,180
29	1,450	1,450	1,900	2,920	6,600	6,600	10,500	3,480	1,970	1,360	3,160	1,120
30	1,300	1,400	2,110	2,680	8,100	7,880	10,900	4,540	1,760	1,360	3,000	1,150
31	1,240	1,970	2,320	2,320	7,680		4,800			1,520	2,390	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,320	608	1,160	0.267	0.31
November	1,970	1,150	1,320	.303	.34
December	3,240	1,360	1,760	.409	.47
January	3,640	1,830	2,540	.584	.67
February	7,000	2,180	3,250	.747	.78
March	23,200	3,720	8,900	2.05	2.36
April	10,900	2,840	5,780	1.33	1.48
May	14,000	2,460	5,620	1.29	1.49
June	17,200	1,760	6,960	1.60	1.78
July	3,320	1,360	2,030	.467	.54
August	5,060	1,580	2,550	.586	.68
September	3,000	1,070	1,520	.349	.39
The year.	23,200	608	3,620	.632	11.29

## Satilla River at Atkinson, Ga.

Location.- Water-stage recorder at highway bridge on U. S. Highway 94 about 400 feet downstream from Atlantic Coast Line Railroad bridge and 1 mile west of Atkinson, Brantley County. Prior to Dec. 5 a staff gage with same datum at same location.

Drainage area.- 2,970 square miles.

Records available.- October 1931 to September 1934.

Extremes.- Maximum discharge during year, 11,900 second-feet June 10, 11; maximum gage height, 15.79 feet June 11; minimum, 69 second-feet May 15 (gage height, 3.13 feet). 1931-34: Maximum discharge recorded, 15,200 second-feet Feb. 18, 1933 (gage height, 16.96 feet); minimum, 4.5 second-feet Nov. 19, 20, 1931 (gage height, 1.9 feet).

Remarks.- Records good. Record of stage Oct. 1 to Jan. 27, Feb. 3 from staff gage. Discharge estimated Jan. 28 to Feb. 2, Feb. 4, 5.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	168	103	108	218	606	804	130	2,470	1,030	158	688
2	375	158	102	112	218	688	745	120	3,040	834	168	745
3	327	139	98	115	218	716	716	120	3,940	688	178	688
4	293	130	98	112	239	745	688	120	4,890	660	178	606
5	260	130	91	105	271	774	688	113	5,350	606	158	553
6	250	139	88	100	304	834	660	105	6,210	527	148	501
7	218	148	103	106	293	960	660	98	7,630	450	139	450
8	208	168	115	113	282	1,100	833	92	11,000	425	158	375
9	198	168	118	120	260	1,220	806	85	11,600	450	130	327
10	168	168	130	130	260	1,260	553	82	11,900	501	130	304
11	158	158	148	120	260	1,260	501	78	11,900	579	148	260
12	148	158	158	130	271	1,260	450	75	11,300	579	218	218
13	139	148	168	120	282	1,340	400	72	10,800	553	271	198
14	130	148	188	120	304	1,520	375	70	10,300	527	239	198
15	120	148	188	117	400	1,760	351	70	9,500	501	327	178
16	117	130	239	120	475	2,010	327	74	9,010	475	450	178
17	140	120	260	118	501	2,170	293	84	9,530	450	501	188
18	120	130	250	115	475	2,230	271	80	7,850	400	400	228
19	112	120	228	118	475	2,170	250	100	7,200	351	351	260
20	106	120	208	120	475	2,060	260	148	6,400	304	375	250
21	351	115	188	120	501	1,910	239	188	5,510	304	400	239
22	400	113	178	130	527	1,760	228	198	4,600	282	375	228
23	351	110	168	139	553	1,610	228	260	3,940	250	351	218
24	351	108	158	158	527	1,430	228	425	3,400	239	304	198
25	327	98	148	188	501	1,220	208	579	2,880	228	260	188
26	293	97	139	218	501	1,060	188	633	2,410	218	228	168
27	271	105	139	218	475	960	178	660	2,110	198	208	148
28	260	112	130	228	501	928	158	716	1,860	198	228	130
29	250	106	120	228		896	148	1,100	1,560	208	304	117
30	228	106	110	218		865	139	1,490	1,260	188	425	106
31	198		106	218		834		1,910		168	606	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	400			106			234			0.079	0.09	
November	168			97			132			.044	.05	
December	260			88			150			.051	.06	
January	228			100			141			.047	.05	
February	553			218			377			.127	.13	
March	2,230			606			1,300			.428	.50	
April	304			139			406			.137	.15	
May	1,910			70			325			.109	.13	
June	11,900			1,260			6,340			2.12	2.38	
July	1,030			168			431			.145	.17	
August	606			130			275			.063	.11	
September	745			106			304			.102	.11	
The year	11,900			70			862			.250	3.93	

## North Prong of St. Marys River at Moniac, Ga.

Location.- Staff gage in sec. 8, T. 1 N., R. 21 E., at highway bridge between Baxter, Fla., and Moniac, Charlton County, Ga., 150 feet upstream from Georgia Southern & Florida Railway trestle. Zero of gage is 92.51 feet above mean sea level.

Drainage area.- 299 square miles. Watershed in Okefenokee Swamp indeterminate.

Records available.- January 1921 to December 1923; January 1927 to June 1930; July 1932 to June 1934 (discontinued).

Extremes.- Maximum discharge recorded during period, 550 second-feet June 18 (gage height, 7.00 feet); no flow May 7-16; minimum gage height, 0.64 foot May 13-15.  
1921-23, 1927-30, 1932-34: Maximum discharge recorded, about 6,060 second-feet probably on Sept. 19, 1928 (gage height, 16.7 feet); no flow June 16-24, 28, 1921, May 19 to June 9, 1927, and May 7-16, 1934.

Remarks.- Records fair except those below 20 second-feet, which are poor. Small pumping diversion just above control; during extremely low stages entire flow of stream is diverted.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	0.8	0.6	0.2	0.1	0.9	0.6	0.1	41			
2	2.2	.8	.6	.2	.2	1.0	.5	.1	85			
3	1.8	1.3	.6	.2	.2	1.0	.5	.1	79			
4	1.7	1.6	.6	.2	.2	1.6	.4	.1	73			
5	1.4	1.6	.6	.2	.2	2.3	.4	.1	58			
6	1.4	1.4	.6	.2	.2	2.2	.3	.1	41			
7	1.4	1.4	.6	.2	.1	2.0	.2	0	31			
8	1.2	1.2	.7	.2	.1	1.9	.2	0	22			
9	.8	1.0	.9	.2	.1	1.8	.2	0	12			
10	.7	1.0	.9	.2	.1	1.7	.2	0	7.5			
11	.6	.8	.7	.2	.1	1.8	.2	0	5.2			
12	.4	.8	.6	.2	.1	1.6	.2	0	3.7			
13	.4	.6	.6	.2	.2	1.4	.1	0	7.5			
14	.3	1.0	.5	.2	.2	1.4	.1	0	104			
15	.3	1.4	.5	.2	.2	1.3	.1	0	407			
16	.2	1.2	.4	.2	.2	1.2	.1	0	407			
17	.9	1.2	.4	.2	.2	1.2	.2	.1	350			
18	1.5	1.1	.4	.2	.2	1.0	.2	.1	450			
19	1.4	1.0	.4	.2	.2	1.0	.2	.1	500			
20	1.0	.9	.3	.2	.2	1.2	.2	.1	368			
21	1.5	.8	.3	.2	.2	1.1	.1	.1	302			
22	1.0	.8	.3	.2	.2	.8	.1	.1	250			
23	1.2	.8	.3	.2	.2	.8	.1	.1	185			
24	1.4	1.0	.3	.2	.2	.6	.1	.1	132			
25	1.2	1.0	.3	.2	.2	.6	.1	.1	104			
26	1.2	.8	.3	.2	.3	.6	.1	.8	73			
27	1.1	.8	.3	.2	.6	.6	.1	.4	56			
28	1.0	.8	.3	.1	.8	.6	.1	.7	39			
29	1.0	.8	.3	.1	.6	.6	.1	7.8	27			
30	.9	.8	.3	.1	.6	.6	.1	6.0	18			
31	.8		.3	.1	.6			14				
Month				Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October				2.3	0.2	1.10	0.0046	0.005				
November				1.6	.6	1.02	.0042	.005				
December				.9	.3	.477	.0020	.002				
January				.2	.1	.187	.00078	.0009				
February				.8	.1	.214	.00089	.0009				
March				2.3	.6	1.19	.0050	.006				
April				.6	.1	.203	.00055	.0009				
May				14	0	1.01	.0042	.005				
June				500	3.7	141	.597	.65				
July												
August												
September												
The year.												

## St. Marys River near Macclenny, Fla.

Location.- Staff gage in sec. 2, T. 2 S., R. 22 E., at Stokes Bridge, 1 mile below junction of North and South Prongs and 6 miles northeast of Macclenny. Zero of gage is 40.00 feet above mean sea level.

Drainage area.- 859 square miles. Watershed in Okefenokee Swamp indeterminate.

Records available.- October 1926 to September 1934.

Extremes.- Maximum discharge recorded during year, 8,280 second-feet June 12 (gage height, 16.39 feet); minimum discharge recorded, 14 second-feet Feb. 8-10, 24, 25, May 14, 15; minimum gage height recorded, 0.46 foot May 14.  
1926-34: Maximum discharge recorded, about 16,500 second-feet Sept. 20, 1928 (gage height, 21.9 feet); minimum discharge recorded, 12 second-feet May 22, 1932; minimum gage height recorded, 0.04 foot June 4, 5, 1927.

Remarks.- Records good above 75 second-feet, fair below.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	27	19	25	20	45	29	26	100	675	375	637
2	125	26	18	26	22	45	28	27	90	565	375	547
3	115	24	18	27	25	45	27	26	135	511	375	511
4	105	25	17	27	22	43	26	25	1,180	637	447	417
5	95	27	17	27	20	67	25	25	1,180	655	447	361
6	85	31	17	27	16	125	25	22	735	655	431	347
7	71	27	26	25	16	110	25	21	369	601	375	305
8	67	26	27	25	14	80	21	20	249	655	361	225
9	59	24	27	25	14	67	20	19	189	655	905	213
10	47	24	24	25	14	63	19	17	125	582	815	189
11	51	21	21	25	16	63	18	17	115	495	775	177
12	46	21	20	24	19	59	17	16	85	403	635	177
13	43	21	20	25	25	55	18	15	71	375	1,180	155
14	39	21	19	25	36	51	18	14	447	305	1,380	145
15	35	21	19	23	30	45	19	14	6,630	375	1,410	125
16	33	21	18	22	23	41	19	17	7,750	361	1,350	135
17	33	21	18	22	20	37	30	19	6,630	333	1,410	135
18	33	21	20	22	19	33	47	21	8,090	315	980	125
19	32	20	20	21	17	29	43	20	7,750	315	755	125
20	37	19	20	21	16	28	41	20	6,330	263	735	100
21	37	19	18	21	16	26	41	19	4,990	245	637	95
22	39	19	19	20	15	25	29	17	3,620	237	565	85
23	41	21	20	20	15	24	26	17	2,770	333	495	75
24	41	21	20	20	14	23	25	16	2,150	403	431	71
25	37	24	19	21	14	23	24	25	1,770	385	375	63
26	35	21	20	21	19	23	30	35	1,580	375	347	59
27	32	20	21	20	27	21	23	46	1,180	361	333	55
28	31	20	22	20	42	25	23	67	955	347	389	51
29	27	19	22	20		29	22	85	905	333	815	50
30	27	19	25	20		23	22	135	715	389	675	44
31	27		24	19		23		125		417	675	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October					135	27	53.6	C.062	0.07			
November					31	19	22.3	.026	.03			
December					27	17	20.5	.024	.03			
January					27	19	22.9	.027	.03			
February					42	14	20.2	.024	.02			
March					125	21	45.0	.052	.06			
April					47	17	26.0	.030	.03			
May					135	14	31.9	.037	.04			
June					8,090	71	2,290	2.67	2.98			
July					675	237	433	.510	.59			
August					1,410	333	691	.804	.93			
September					637	44	193	.225	.25			
The year.					8,090	14	320	.373	5.06			



## St. Johns River near Christmas, Fla.

Location.- Water-stage recorder in sec. 29 or 32, T. 22 S., R. 34 E., at bridge on State Highway 22 about 5 miles east of Christmas. Prior to July 23, 1934, staff gage with same datum at same location. Elevation of zero of gage is 1.68 feet above mean sea level.

Drainage area.- 1,320 square miles.

Records available.- December 1933 to September 1934.

Extremes.- Maximum discharge during period, 4,800 second-feet June 20 (gage height, 8.9 feet, from high-water mark); minimum discharge recorded, 361 second-feet Apr. 15 (gage height, 4.47 feet).  
The flood of September 1926 reached a stage of 10.8 feet (estimated discharge, 10,000 second-feet).

Remarks.- Records fair. Discharge interpolated Dec. 18, Jan. 30, June 25-28, July 24. Discharge estimated July 16-22.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				1,440	850	538	594	850	1,750	3,850	2,960	1,800
2				1,440	850	560	594	850	1,700	3,850	2,960	1,750
3				1,440	850	685	586	790	1,590	3,940	2,960	1,750
4				1,400	850	710	570	790	1,590	4,030	2,890	1,750
5				1,350	820	735	546	760	1,640	4,120	2,820	1,800
6				1,300	790	710	534	735	1,640	4,210	2,610	1,800
7				1,300	760	710	506	735	1,640	4,120	2,610	1,800
8				1,260	735	685	476	685	1,640	4,120	2,610	1,800
9				1,260	710	650	469	685	1,640	4,030	2,610	1,800
10				1,220	760	685	444	660	1,640	3,940	2,680	1,750
11				1,180	760	735	438	650	1,590	3,850	2,610	1,750
12				1,180	760	735	402	640	1,590	3,850	2,540	1,750
13				1,140	735	735	392	630	1,700	3,760	2,460	1,750
14			1,980	1,100	710	710	367	630	1,750	3,760	2,420	1,700
15			1,960	1,100	685	710	370	625	2,280	3,680	2,420	1,750
16			1,980	1,060	640	710	430	630	3,120	3,650	2,350	1,750
17			1,920	1,020	598	710	522	915	3,940	3,700	2,290	1,750
18			1,890	1,020	574	685	610	1,400	4,400	3,750	2,220	1,750
19			1,860	985	550	685	760	1,860	4,600	3,750	2,220	1,800
20			1,800	1,020	518	640	880	1,920	4,700	3,700	2,220	1,800
21			1,750	985	494	640	1,060	1,800	4,600	3,600	2,160	1,800
22			1,750	985	498	615	1,180	1,640	4,600	3,500	2,100	1,800
23			1,700	965	483	590	1,220	1,540	4,500	3,430	2,100	1,900
24			1,700	950	466	570	1,220	1,440	4,400	3,430	2,040	1,750
25			1,640	950	462	546	1,140	1,440	4,310	3,350	1,980	1,800
26			1,590	915	455	538	1,100	1,590	4,220	3,350	1,980	1,800
27			1,590	915	458	518	1,020	1,700	4,130	3,270	1,920	1,750
28			1,540	880	455	522	985	1,860	4,040	3,120	1,860	1,700
29			1,540	860		542	950	1,920	3,940	3,190	1,860	1,700
30			1,540	850		550	915	1,920	3,850	3,120	1,860	1,640
31			1,490	820		562		1,860		3,120	1,800	
Month	Maximum				Minimum		Mean		Per square mile		Run-off in inches	
October												
November												
December 14-31	1,980				1,490		1,740		1.32		0.88	
January	1,440				820		1,110		.841		.97	
February	850				452		652		.494		.51	
March	735				518		845		.489		.56	
April	1,220				367		709		.537		.60	
May	1,920				625		1,170		.886		1.02	
June	4,700				1,590		2,960		2.24		2.50	
July	4,210				3,120		3,680		2.79		3.22	
August	2,960				1,800		2,360		1.79		2.06	
September	1,800				1,640		1,760		1.33		1.48	
The year												

## St. Johns River near De Land, Fla.

Location.— Slope station with three gages in T. 17 S., R. 29 E.; upper water-stage recorder at Hawkinsville about 1 mile above Crows Bluff bridge, which is 5 miles west of De Land; lower recording gage, about  $\frac{3}{4}$  miles below this bridge at St. Francis Landing; and a staff gage at the bridge. Zero of gages is 1.106 feet, 0.776 foot, and 1.114 feet below mean sea level, respectively.

Drainage area.— 2,830 square miles.

Records available.— January to September 1934; discharge measurements from July 1932 to December 1933.

Extremes.— Maximum discharge during period, 11,000 second-feet July 5 (computed gage height at bridge, 5.18 feet); minimum discharge, 968 second-feet May 17; minimum stage, computed at bridge, 1.43 feet May 18.  
Maximum stage known, 6.8 feet in 1910.

Remarks.— Records above 4,000 second-feet good, computed as mean of velocity-area method and stage-discharge method. Records below 4,000 second-feet fair, computed by velocity-area method.

Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					2,450	1,890	1,670	1,550	4,330	10,000	7,920	5,420
2					2,300	2,180	1,890	1,450	4,260	10,000	7,980	5,180
3					2,520	2,260	1,880	1,590	4,450	10,500	7,920	5,140
4					2,450	2,580	1,960	1,870	4,560	10,600	7,920	5,280
5					2,520	2,580	1,960	1,980	4,670	10,600	7,820	5,460
6					2,450	2,630	2,040	2,290	4,780	10,600	7,590	5,400
7					2,210	2,690	2,030	2,460	4,800	10,400	7,700	5,460
8					2,210	2,880	2,010	2,560	4,800	10,400	7,700	5,360
9					2,030	2,810	1,500	2,540	4,760	10,200	7,720	5,360
10					1,550	2,390	1,500	2,540	4,730	9,850	7,720	5,240
11					1,440	2,070	1,500	2,420	4,650	9,480	7,720	5,160
12					1,790	2,170	1,500	2,420	4,660	9,400	7,780	5,060
13					1,790	2,260	1,510	2,420	4,660	9,100	7,900	5,040
14					1,990	2,270	1,610	2,420	5,200	8,960	7,900	4,940
15					2,070	2,180	1,630	2,230	6,500	8,960	7,900	4,860
16					2,260	2,180	1,510	2,500	6,940	8,720	7,900	4,860
17					1,980	2,180	1,260	2,670	7,300	8,770	7,640	4,860
18					1,890	2,260	1,820	2,690	7,980	8,600	7,540	4,900
19					1,770	2,440	2,030	2,690	8,080	8,540	7,460	4,900
20					1,560	2,170	2,040	2,870	8,490	8,300	7,310	4,620
21					1,780	2,480	1,960	3,100	8,880	8,420	7,210	4,680
22					1,770	2,690	2,060	3,260	9,320	8,420	7,120	4,530
23				2,020	1,770	2,670	2,140	3,290	9,560	8,560	7,020	4,400
24				2,100	1,960	2,580	2,230	3,510	9,950	8,300	6,960	4,400
25				2,260	2,230	3,370	2,230	3,610	10,200	8,250	6,960	4,360
26				2,330	2,030	2,370	2,260	3,500	10,300	8,100	6,690	4,370
27				2,400	1,760	2,110	2,240	3,070	10,400	8,100	6,410	4,410
28				2,470	1,550	2,030	2,260	3,500	10,500	7,870	6,180	4,250
29				2,560		1,650	1,710	3,900	10,400	7,870	5,980	4,250
30				2,140		1,660	1,760	4,140	10,200	7,820	5,870	4,120
31				2,120		1,560		4,290		8,100	5,660	
Month				Maximum		Minimum		Mean		Per square mile		Run-off in inches
October												
November												
December												
January 23-31				2,470		2,020		2,250		0.795		0.27
February				2,520		1,440		2,000		.707		.74
March				2,880		1,560		2,290		.809		.93
April				2,260		1,260		1,860		.657		.73
May				4,290		1,450		2,750		.972		1.12
June				10,500		4,260		7,000		2.47		2.76
July				10,600		7,820		9,080		3.21		3.70
August				7,990		5,660		7,330		2.59		2.99
September				5,460		4,120		4,880		1.72		1.92
The year												

## Wekiva River near Sanford, Fla.

Location.- Near line between secs. 33 and 34, T. 19 S., R. 29 E., at highway bridge 9 miles west of Sanford.

Records available.- Discharge measurements from October 1931 to September 1934.

Extremes.- 1931-34: Maximum discharge measured, that of June 5, 1934; minimum, 147 second-feet Apr. 7, 1933.

Remarks.- Wekiva River is fed by large springs. No daily record of stage obtained but discharge measurements made about monthly. Flow is very uniform. Stage affected by backwater from St. Johns River when it is high. No measurements July to September.

## Discharge measurements, in second-feet, 1933-34

Oct. 2	255	Jan. 22	244	Apr. 23	301
Nov. 17	240	Feb. 16	254	May 7	319
Dec. 13	303	Mar. 15	230	June 5	*580

\*Measurement made after hard rains, includes considerable surface run-off.

## Blue Spring near Orange City, Fla.

Location.- In sec. 7, T. 18 S., R. 30 E., about 2½ miles west of Orange City.

Records available.- Discharge measurements from March 1932 to September 1934.

Extremes.- 1932-34: Maximum discharge measured, 188 second-feet Dec. 5, 1932; minimum, 137 second-feet Mar. 2, 1932.

Remarks.- Measurements are made about monthly in the spring run above junction with St. Johns River, a quarter of a mile below spring. No measurements July to September.

## Discharge measurements, in second-feet, 1933-34

Oct. 2	169	Jan. 23	172	Apr. 23	172
Nov. 17	164	Feb. 16	146	May 8	146
Dec. 13	159	Mar. 15	143	June 5	151

## Oklawaha River near Ocala, Fla.

Location.- Water-stage recorder in sec. 15, T. 15 S., R. 23 E., at county highway bridge known as Sharpes Ferry, 2 miles upstream from Silver River and 9 miles east of Ocala. Zero of gage is 36.16 feet above mean sea level.

Records available.- February 1930 to September 1934.

Extremes.- Maximum discharge during year, 1,810 second-feet June 15 (gage height, 5.14 feet); minimum discharge, 305 second-feet Oct. 11, 12, 14, 15; minimum gage height, 1.26 feet Apr. 13.

1930-34: Maximum discharge, that of June 15, 1934; maximum gage height, 5.52 feet Sept. 6, 1933; minimum discharge, 48 second feet June 4, 1933; minimum gage height, -1.76 feet Aug. 2, 1931.

Remarks.- Records poor because of variable backwater effects from Silver River and shifting control. Flow regulated by power plant at Moss Bluff, 12 miles upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	335	350	422	527	488	488	415	437	527	814	770	914
2	320	350	422	527	507	488	408	453	507	814	770	914
3	315	366	437	527	507	488	402	437	548	814	770	862
4	310	366	437	527	507	507	395	453	659	770	770	862
5	310	366	437	527	488	507	395	437	693	770	770	862
6	310	378	437	527	488	507	389	437	693	770	770	862
7	315	378	453	527	488	488	383	437	693	770	770	862
8	310	372	453	527	488	507	383	437	693	770	814	862
9	310	378	453	527	488	507	378	437	659	730	814	862
10	310	378	453	527	488	507	378	437	626	730	862	862
11	305	378	453	527	470	488	372	422	571	730	862	914
12	305	378	453	527	488	488	372	422	548	730	862	914
13	310	383	453	527	488	488	361	415	571	730	862	914
14	305	383	470	527	470	488	366	415	914	693	862	914
15	310	383	470	527	470	488	366	597	1,810	693	862	914
16	315	383	470	527	470	470	383	693	1,630	693	862	970
17	320	389	488	527	453	470	395	693	1,380	693	862	914
18	320	383	488	527	453	470	422	693	1,300	693	862	970
19	325	383	488	527	453	470	453	693	1,230	693	862	970
20	320	378	488	527	453	470	470	659	1,160	693	862	914
21	325	383	488	527	453	470	488	659	1,090	659	862	914
22	330	383	488	527	470	453	470	626	1,030	693	862	914
23	335	389	507	527	453	453	453	626	970	770	862	914
24	340	389	507	507	453	453	453	597	914	770	862	862
25	345	402	507	507	453	437	437	571	914	770	862	862
26	340	415	507	507	470	437	422	548	862	770	862	862
27	340	415	507	507	488	437	422	527	862	770	862	862
28	345	415	527	507	488	437	415	527	814	770	862	862
29	345	422	527	507	488	422	415	548	814	770	914	862
30	345	422	527	507	488	422	422	548	814	770	970	862
31	350		527	507		408		548		770	970	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	350	305	323		
November	422	350	385		
December	527	422	476		
January	527	507	522		
February	507	453	476		
March	507	408	471		
April	488	361	409		
May	693	415	530		
June	1,810	507	883		
July	814	659	744		
August	970	770	847		
September	970	862	894		
The year.	1,810	305	580		

## Oklawaha River near Connor, Fla.

Location.- Staff gage in sec. 3, T. 15 S., R. 23 E., at highway bridge on Ocala-Daytona highway a quarter of a mile downstream from the mouth of Silver River and 8 miles east of Ocala. Zero of gage is 31.60 feet above mean sea level.

Records available.- February 1930 to September 1934.

Extremes.- Maximum discharge recorded during year, 3,430 second-feet June 15 (gage height, 8.50 feet); minimum recorded, 1,030 second-feet Apr. 14 (gage height, 5.20 feet).  
1930-34: Maximum discharge, 3,700 second-feet Sept. 6, 1933 (gage height, 9.14 feet); minimum, 631 second-feet Feb. 1, 1933 (gage height, 2.88 feet).

Remarks.- Records good. Operation of power plant at Moss Bluff affects flow at low stages.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	1,510	1,460	1,460	1,460	1,360	1,300	1,150	1,100	1,280	2,000	1,800	1,930		
2	1,510	1,460	1,460	1,460	1,360	1,300	1,150	1,100	1,280	2,000	1,800	1,930		
3	1,460	1,460	1,460	1,460	1,360	1,300	1,130	1,100	1,320	2,000	1,860	1,930		
4	1,460	1,460	1,460	1,510	1,360	1,320	1,130	1,100	1,410	2,000	1,800	1,930		
5	1,510	1,510	1,460	1,460	1,360	1,320	1,110	1,080	1,460	2,000	1,800	1,930		
6	1,460	1,460	1,460	1,460	1,360	1,320	1,100	1,080	1,460	2,000	1,800	1,860		
7	1,460	1,460	1,460	1,460	1,360	1,300	1,100	1,080	1,460	1,930	1,800	1,860		
8	1,460	1,460	1,460	1,460	1,360	1,300	1,100	1,080	1,460	1,930	1,800	1,860		
9	1,460	1,460	1,460	1,460	1,360	1,300	1,100	1,060	1,410	1,930	1,860	1,860		
10	1,410	1,460	1,460	1,460	1,360	1,300	1,080	1,060	1,410	1,860	1,860	1,930		
11	1,410	1,460	1,460	1,460	1,340	1,300	1,080	1,040	1,380	1,960	1,860	1,930		
12	1,410	1,460	1,460	1,460	1,340	1,280	1,060	1,040	1,410	1,860	1,860	1,930		
13	1,410	1,460	1,460	1,460	1,340	1,280	1,060	1,040	1,510	1,860	1,860	1,930		
14	1,410	1,460	1,460	1,460	1,320	1,260	1,040	1,040	1,860	1,860	1,930	1,930		
15	1,380	1,460	1,460	1,410	1,320	1,260	1,060	1,180	3,250	1,860	1,860	1,930		
16	1,380	1,460	1,460	1,410	1,320	1,260	1,060	1,300	3,070	1,860	1,860	1,930		
17	1,410	1,460	1,510	1,410	1,320	1,240	1,080	1,320	2,910	1,860	1,860	1,930		
18	1,410	1,460	1,460	1,410	1,320	1,240	1,130	1,320	2,750	1,800	1,860	2,000		
19	1,410	1,460	1,460	1,410	1,300	1,240	1,160	1,300	2,590	1,800	1,860	1,930		
20	1,410	1,460	1,460	1,380	1,300	1,220	1,160	1,320	2,510	1,800	1,860	1,930		
21	1,460	1,460	1,460	1,380	1,300	1,220	1,160	1,320	2,430	1,800	1,860	1,930		
22	1,460	1,460	1,460	1,380	1,300	1,220	1,150	1,300	2,350	1,800	1,860	1,860		
23	1,460	1,460	1,460	1,380	1,300	1,200	1,130	1,300	2,280	1,930	1,860	1,860		
24	1,460	1,460	1,460	1,380	1,300	1,200	1,110	1,320	2,280	1,860	1,860	1,860		
25	1,460	1,460	1,460	1,380	1,300	1,200	1,110	1,300	2,210	1,860	1,860	1,860		
26	1,460	1,410	1,510	1,380	1,300	1,200	1,100	1,280	1,860	1,860	1,860	1,860		
27	1,460	1,410	1,460	1,380	1,300	1,180	1,100	1,260	2,140	1,800	1,860	1,860		
28	1,460	1,410	1,460	1,360	1,280	1,180	1,080	1,300	2,070	1,800	1,860	1,860		
29	1,460	1,410	1,460	1,360		1,160	1,060	1,300	2,070	1,800	2,070	1,860		
30	1,460	1,460	1,460	1,360		1,150	1,100	1,300	2,070	1,800	2,070	1,800		
31	1,460		1,460	1,360		1,160		1,300		1,800	2,000			
Month					Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October					1,510		1,380		1,450					
November					1,510		1,410		1,460					
December					1,510		1,460		1,460					
January					1,510		1,560		1,420					
February					1,360		1,280		1,350					
March					1,320		1,150		1,250					
April					1,160		1,040		1,100					
May					1,320		1,040		1,190					
June					3,250		1,280		1,960					
July					2,000		1,800		1,880					
August					2,070		1,800		1,870					
September					2,000		1,800		1,900					
The year					3,250		1,040		1,520					

## Oklawaha River at Eureka, Fla.

Location.- Staff gage in sec. 9, T. 13 S., R. 24 E., at county highway bridge at Eureka, 3 miles downstream from mouth of Eaton Creek. Zero of gage is 15.14 feet above mean sea level.

Records available.- February 1930 to June 1954 (discontinued).

Extremes.- Maximum discharge recorded during period, 5,360 second-feet June 17 (gage height, 10.08 feet); minimum recorded, 1,050 second-feet Apr. 15 (gage height, 5.19 feet).

1930-34: Maximum discharge, 6,260 second-feet Sept. 7 (gage height, 11.00 feet); minimum, 626 second-feet Feb. 2, 1933.

Remarks.- Records good.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,700	1,480	1,480	1,550	1,400	1,300	1,150	1,190	1,340			
2	1,620	1,480	1,480	1,550	1,400	1,300	1,140	1,190	1,320			
3	1,620	1,480	1,480	1,550	1,400	1,300	1,140	1,170	1,340			
4	1,620	1,480	1,480	1,550	1,400	1,300	1,120	1,170	1,420			
5	1,620	1,480	1,480	1,480	1,370	1,300	1,100	1,150	1,480			
6	1,620	1,480	1,480	1,550	1,370	1,270	1,100	1,140	1,480			
7	1,550	1,480	1,480	1,550	1,370	1,270	1,100	1,120	1,550			
8	1,550	1,480	1,480	1,550	1,370	1,270	1,090	1,210	1,550			
9	1,550	1,480	1,480	1,550	1,340	1,250	1,080	1,190	1,620			
10	1,480	1,480	1,480	1,550	1,370	1,230	1,090	1,150	1,550			
11	1,480	1,480	1,420	1,550	1,400	1,230	1,060	1,140	1,550			
12	1,480	1,480	1,420	1,550	1,420	1,230	1,060	1,120	1,550			
13	1,420	1,480	1,420	1,480	1,420	1,230	1,050	1,100	1,620			
14	1,420	1,420	1,420	1,480	1,420	1,210	1,050	1,120	1,870			
15	1,420	1,420	1,480	1,480	1,400	1,210	1,050	1,250	3,260			
16	1,480	1,420	1,480	1,480	1,400	1,210	1,090	1,230	4,660			
17	1,480	1,420	1,480	1,480	1,370	1,210	1,090	1,250	5,260			
18	1,480	1,420	1,480	1,420	1,340	1,190	1,190	1,300	4,860			
19	1,480	1,420	1,480	1,420	1,340	1,190	1,210	1,320	4,260			
20	1,480	1,420	1,480	1,420	1,320	1,190	1,210	1,370	3,760			
21	1,480	1,420	1,480	1,420	1,300	1,170	1,210	1,370	3,480			
22	1,480	1,420	1,480	1,420	1,300	1,170	1,210	1,370	3,160			
23	1,480	1,420	1,480	1,400	1,300	1,170	1,210	1,340	3,060			
24	1,550	1,420	1,480	1,400	1,300	1,170	1,190	1,340	2,960			
25	1,480	1,480	1,480	1,400	1,300	1,150	1,170	1,370	2,860			
26	1,480	1,480	1,480	1,400	1,320	1,150	1,140	1,370	2,660			
27	1,480	1,480	1,480	1,400	1,320	1,150	1,140	1,370	2,660			
28	1,480	1,550	1,480	1,400	1,320	1,150	1,120	1,400	2,560			
29	1,480	1,550	1,480	1,400		1,150	1,140	1,400	2,480			
30	1,480	1,480	1,480	1,370		1,150	1,150	1,400	2,480			
31	1,480		1,480	1,370		1,150		1,370				
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	1,700			1,420			1,510					
November	1,650			1,420			1,460					
December	1,480			1,420			1,470					
January	1,550			1,370			1,470					
February	1,420			1,300			1,360					
March	1,300			1,150			1,180					
April	1,210			1,050			1,130					
May	1,400			1,100			1,260					
June	5,260			1,320			2,520					
July												
August												
September												
The year												

## Oklawaha River near Orange Springs, Fla.

Location.- Staff gage in sec. 28, T. 11 S., R. 24 E., a quarter of a mile downstream from Jordans Ferry and mouth of Orange Creek and 2½ miles east of Orange Springs. Zero of gage is 5.36 feet above mean sea level.

Records available.- February 1930 to September 1934.

Extremes.- Maximum discharge recorded during year, 8,350 second-feet June 19 (gage height, 10.10 feet); minimum discharge recorded, 1,190 second-feet Apr. 14, 15; minimum gage height, 4.58 feet Apr. 15.

1930-34: Maximum discharge recorded, 9,760 second-feet Sept. 9, 1933 (gage height, 11.60 feet); minimum recorded, 741 second-feet on several days from January to June 1933; minimum stage, 2.40 feet Feb. 2, 1933.

Remarks.- Records good.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,400	1,880	1,740	1,740	1,620	1,680	1,400	1,500	1,740	3,040	2,660	3,770
2	2,320	1,810	1,740	1,740	1,680	1,680	1,400	1,580	1,680	2,940	2,660	3,660
3	2,320	1,810	1,740	1,740	1,680	1,680	1,400	1,580	1,680	2,940	2,570	3,440
4	2,240	1,810	1,680	1,740	1,620	1,680	1,350	1,500	1,620	2,940	2,570	3,240
5	2,240	1,810	1,680	1,740	1,620	1,680	1,350	1,450	1,980	2,940	2,450	3,140
6	2,240	1,810	1,680	1,740	1,620	1,680	1,310	1,400	1,880	2,940	2,480	3,040
7	2,240	1,810	1,680	1,680	1,620	1,620	1,310	1,350	1,880	2,940	2,400	3,040
8	2,160	1,810	1,740	1,680	1,620	1,620	1,310	1,400	1,880	2,840	2,400	2,940
9	2,160	1,810	1,740	1,680	1,620	1,620	1,310	1,400	1,880	2,750	2,400	2,840
10	2,090	1,810	1,680	1,680	1,620	1,560	1,270	1,350	1,880	2,660	2,480	2,750
11	2,020	1,810	1,680	1,680	1,680	1,560	1,230	1,310	1,980	2,570	2,450	2,660
12	2,020	1,740	1,680	1,680	1,610	1,560	1,230	1,310	1,680	2,570	2,660	2,660
13	2,020	1,740	1,680	1,680	1,950	1,560	1,230	1,310	2,020	2,570	2,750	2,570
14	1,950	1,740	1,680	1,680	1,680	1,500	1,190	1,310	2,160	2,660	2,750	2,480
15	1,950	1,740	1,680	1,680	1,680	1,500	1,190	1,500	2,660	2,570	2,660	2,570
16	1,950	1,740	1,680	1,680	1,610	1,500	1,270	1,680	2,750	2,480	2,570	2,660
17	1,950	1,680	1,680	1,680	1,610	1,500	1,310	1,680	3,240	2,480	2,570	2,660
18	1,950	1,680	1,680	1,680	1,740	1,450	1,500	1,680	4,570	2,400	2,480	2,660
19	2,020	1,680	1,680	1,680	1,740	1,450	1,620	1,680	6,350	2,400	2,450	2,750
20	2,020	1,680	1,680	1,620	1,740	1,450	1,740	1,620	5,590	2,320	2,480	2,750
21	2,020	1,620	1,680	1,620	1,680	1,450	1,680	1,620	5,050	2,320	2,570	2,750
22	2,020	1,620	1,680	1,620	1,680	1,400	1,620	1,620	4,570	2,400	2,480	2,750
23	2,020	1,620	1,680	1,620	1,620	1,400	1,620	1,620	4,100	3,040	2,480	2,750
24	2,020	1,620	1,680	1,620	1,620	1,400	1,560	1,620	3,880	3,340	2,480	2,660
25	2,020	1,620	1,680	1,620	1,620	1,400	1,500	1,620	3,660	3,550	2,480	2,570
26	1,950	1,740	1,740	1,620	1,620	1,400	1,450	1,560	3,550	3,550	2,570	2,570
27	1,950	1,740	1,680	1,620	1,680	1,350	1,400	1,580	3,340	3,340	2,660	2,570
28	1,950	1,740	1,680	1,620	1,680	1,450	1,350	1,680	3,240	3,140	2,750	2,480
29	1,880	1,740	1,680	1,620	1,620	1,450	1,350	1,680	3,240	3,040	2,940	2,480
30	1,880	1,740	1,680	1,620	1,620	1,400	1,400	1,810	3,140	2,840	3,240	2,480
31	1,880		1,680	1,620	1,620	1,400		1,810		2,750	3,550	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,400	1,880	2,060		
November	1,880	1,620	1,740		
December	1,740	1,680	1,690		
January	1,740	1,620	1,670		
February	1,950	1,620	1,700		
March	1,680	1,350	1,520		
April	1,740	1,190	1,400		
May	1,880	1,310	1,550		
June	6,350	1,620	2,970		
July	3,550	2,320	2,810		
August	3,550	2,400	2,620		
September	3,770	2,480	2,810		
The year	6,350	1,190	2,050		

## North Fork of Black Creek near Middleburg, Fla.

Location.- Staff gage in sec. 28, T. 4 S., R. 24 E., about 4 miles northwest of Middleburg.

Drainage area.- 207 square miles.

Records available.- November 1931 to September 1934.

Extremes.- Maximum discharge during year, 5,580 second-feet June 15 (gage height, 18.53 feet, from high-water mark); minimum recorded, 14 second-feet Apr. 14, 15 (gage height, 0.72 foot).

1931-34: Maximum discharge, 6,720 second-feet Sept. 6, 1933; minimum, 5.6 second-feet Nov. 18-22, 1931 (gage height, 0.66 foot, old gage).

Maximum stage known, 21.5 feet; discharge, estimated, 10,000 second-feet.

Remarks.- Records good except those estimated June 15, 16, 21-24, which are poor.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	54	31	32	31	108	45	207	312	121	121	227
2	28	54	30	32	54	121	41	412	267	98	121	267
3	29	54	28	32	47	103	36	506	247	108	94	167
4	50	58	28	32	39	98	32	247	247	121	90	112
5	94	66	27	32	34	257	28	148	197	121	112	82
6	82	66	28	32	31	237	24	94	139	108	98	94
7	62	54	50	31	29	157	22	66	90	108	74	94
8	39	44	54	30	28	121	21	47	70	78	62	78
9	29	40	46	32	26	94	20	38	54	66	70	62
10	27	34	40	33	26	82	19	32	42	58	98	58
11	26	32	36	32	47	78	17	24	34	54	139	74
12	24	31	34	30	82	70	16	22	31	54	1,280	66
13	22	26	32	30	157	58	16	20	38	479	2,010	54
14	21	27	31	29	112	54	14	24	425	554	1,430	54
15	21	26	30	28	82	47	14	43	5,000	197	803	82
16	22	24	31	26	70	44	20	70	3,000	121	373	121
17	24	24	29	25	62	39	23	112	1,580	82	207	86
18	36	24	28	25	54	36	30	157	2,180	58	121	70
19	32	24	28	24	47	35	50	227	2,400	46	90	58
20	35	24	29	26	42	35	62	217	1,560	41	94	50
21	66	24	28	26	38	34	58	148	800	35	74	45
22	108	24	27	27	36	32	50	103	500	90	58	40
23	148	44	27	28	34	31	47	74	350	289	47	35
24	112	40	27	28	33	29	44	54	220	257	54	31
25	103	38	26	26	31	29	34	58	157	267	45	29
26	98	40	26	46	70	29	26	187	177	227	41	29
27	121	38	27	58	130	28	20	148	157	167	40	33
28	98	34	29	40	94	42	17	336	139	121	38	29
29	78	31	29	32	54	17	628	121	139	267	26	26
30	70	30	31	28	50	50	90	844	98	130	227	24
31	66		32	25		47		574		121	247	
Month				Maximum		Minimum		Mean		Per square mile		Run-off in inches
October				148		21		58.0		0.280		0.32
November				66		24		37.7		.182		.20
December				54		26		31.6		.163		.18
January				58		24		30.8		.149		.17
February				157		26		55.9		.270		.28
March				257		28		73.5		.365		.41
April				90		14		31.7		.153		.17
May				844		20		189		.913		1.05
June				5,000		31		681		3.29		3.67
July				654		35		149		.720		.83
August				2,010		38		278		1.34		1.54
September				267		24		75.6		.345		.41
The year				5,000		14		141		.681		9.23



## Lake Okeechobee at St. Lucie Canal, Fla.

Location.- Staff gage in sec. 22, T. 40 S., R. 37 E., on east shore of Lake Okeechobee at entrance to St. Lucie Canal, 8 miles north of Canal Point. Zero of gage is at mean sea level, Punta Rassa datum. Prior to Oct. 1, 1933, stages were published as referred to Okeechobee Flood Control District datum, which is 0.43 foot higher than Punta Rassa datum.

Records available.- October 1931 to September 1934 in reports of U. S. Geological Survey; 1915 to 1931 in reports of, or in office of, Everglades Drainage District.

Extremes.- Maximum stage recorded during year, 17.05 feet Oct. 25; minimum stage, 15.65 feet May 10, 11.

1931-34: Maximum stage recorded, 21.5 feet (Punta Rassa datum) Sept. 4, 1933; minimum stage recorded, 11.7 feet (Punta Rassa datum) May 17, 1932.

Remarks.- Abrupt changes in stage frequently caused by wind. Gage-height record furnished by Okeechobee Flood Control District.

Elevation, in feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16.45	16.70	16.50	16.30	15.90	15.95	16.00	15.85	16.00	16.20	16.50	16.60
2	16.45	16.70	16.45	16.30	16.20	15.95	16.00	15.85	16.10	16.25	16.45	16.50
3	16.40	16.85	16.40	16.30	16.10	15.95	16.00	15.85	15.90	16.20	16.50	16.45
4	16.45	16.75	16.45	16.30	16.10	16.00	15.90	15.85	15.95	16.20	16.55	16.60
5	16.45	16.70	16.40	16.30	16.10	16.15	15.85	15.85	15.95	16.20	16.50	16.60
6	16.75	16.80	16.45	16.30	16.15	16.00	15.85	15.80	15.90	16.25	16.50	16.65
7	16.55	16.80	16.70	16.30	16.10	16.00	15.85	15.80	15.95	16.20	16.50	16.65
8	16.85	16.80	16.60	16.30	16.00	16.05	15.95	15.70	15.95	16.15	16.55	16.60
9	16.80	16.70	16.70	16.30	16.05	16.05	16.10	15.70	15.90	16.20	16.55	16.55
10	16.75	16.55	16.40	16.30	15.80	16.10	16.00	15.65	15.95	16.25	16.50	16.55
11	16.75	16.55	16.30	16.10	16.00	16.15	15.85	15.65	15.95	16.30	16.55	16.55
12	16.75	16.60	16.50	16.15	16.00	16.10	15.85	15.80	15.95	16.40	16.55	16.50
13	16.80	16.60	16.45	16.25	16.05	16.00	15.85	15.85	16.00	16.35	16.55	16.50
14	16.75	16.65	16.45	16.20	16.00	15.95	15.85	15.80	15.95	16.40	16.60	16.45
15	16.70	16.65	16.40	16.10	16.00	15.85	15.75	15.95	16.20	16.40	16.60	16.55
16	16.70	16.50	16.40	16.05	16.00	15.80	15.85	15.95	16.20	16.40	16.55	16.75
17	16.75	16.45	16.40	16.10	16.00	15.80	15.90	15.95	16.25	16.35	16.60	16.60
18	16.70	16.50	16.40	16.10	15.95	16.05	15.95	15.90	16.30	16.35	16.65	16.60
19	16.70	16.55	16.45	16.10	16.10	16.00	15.95	15.95	16.40	16.35	16.70	16.65
20	16.70	16.50	16.40	16.10	16.00	16.40	16.10	15.95	16.30	16.45	16.75	16.70
21	16.70	16.50	16.50	16.10	15.90	16.10	15.95	15.95	16.15	16.50	16.70	16.80
22	16.75	16.50	16.40	16.10	16.05	16.05	15.90	16.00	16.15	16.80	16.65	16.80
23	16.70	16.55	16.40	16.10	16.10	15.90	15.85	16.15	16.15	16.45	16.75	16.75
24	16.90	16.60	16.40	16.10	16.05	15.90	15.90	16.15	16.20	16.50	16.65	16.70
25	17.05	16.60	16.40	16.10	16.05	15.80	16.00	16.15	16.20	16.45	16.60	16.75
26	16.90	16.80	16.40	16.15	16.10	15.80	15.85	16.15	16.15	16.45	16.60	16.75
27	16.80	16.60	16.30	16.15	15.95	15.75	15.85	16.50	16.10	16.45	16.60	16.75
28	16.70	16.60	16.30	16.10	15.95	15.80	15.85	16.65	16.15	16.50	16.65	16.75
29	16.65	16.65	16.30	16.00		16.00	15.85	16.10	16.15	16.40	16.70	16.70
30	16.65	16.60	16.30	15.90		16.00	15.80	16.10	16.20	16.50	16.65	16.70
31	16.50		16.20	15.80		16.05		16.00		16.45	16.65	

## Kissimmee River below Lake Kissimmee, Fla.

Location.— Water-stage recorder in sec. 24, T. 31 S., R. 31 E., 3 miles below Vero Bridge, on State Highway 30, and 3 miles below Lake Kissimmee. Prior to Mar. 21, 1934, staff gage with same datum at bridge. Zero of gage is 1.14 feet below mean sea level (unadjusted), U. S. Coast and Geodetic Survey datum.

Drainage area.— 1,850 square miles.

Records available.— October 1933 to September 1934.

Extremes.— Maximum discharge during year, 7,150 second-feet June 24 (gage height, 56.26 feet); minimum discharge, 573 second-feet May 6; minimum gage height, 50.65 feet Apr. 15.

Remarks.— Records good except those for September, which may be poor. Above gage height, 54.0 feet (discharge about 2,000 second-feet), discharge determined from readings of staff gage at bridge 3 miles upstream. Record of gage heights at bridge furnished by Okeechobee Flood Control District.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,740	2,440	1,590	1,160	870	785	712	647	870	6,350	3,460	2,870
2	4,450	2,330	1,530	1,160	970	760	712	627	900	6,000	3,460	2,800
3	4,450	2,330	1,530	1,120	900	760	712	608	935	6,350	3,280	2,800
4	4,170	2,330	1,530	1,120	900	760	690	608	970	6,000	3,110	2,950
5	4,740	2,330	1,470	1,120	900	785	690	608	970	6,350	3,110	3,110
6	4,450	2,230	1,470	1,080	900	785	690	608	1,000	6,000	3,280	3,110
7	4,170	2,230	1,470	1,080	900	785	690	647	1,000	6,000	3,280	3,280
8	3,900	2,230	1,470	1,080	870	785	668	690	1,000	5,670	3,460	3,280
9	3,900	2,130	1,470	1,120	870	760	690	712	1,000	5,350	3,460	3,460
10	3,660	2,130	1,470	1,080	870	810	712	735	1,040	5,350	3,280	3,660
11	3,660	2,030	1,370	1,040	840	840	712	760	1,040	4,740	3,280	3,900
12	3,460	1,940	1,370	1,040	840	810	735	735	1,000	5,040	3,280	3,460
13	3,280	1,940	1,370	1,040	870	760	785	735	1,040	5,040	3,110	3,280
14	3,280	1,940	1,370	1,040	840	785	760	735	1,080	4,740	3,110	3,110
15	3,280	1,940	1,320	1,040	840	760	760	785	1,420	4,740	3,110	2,800
16	3,110	1,860	1,320	1,000	840	735	840	785	2,030	4,740	3,110	2,800
17	3,110	1,790	1,280	1,000	840	760	900	765	2,550	4,170	2,950	2,870
18	2,950	1,790	1,280	1,000	810	760	970	810	3,460	4,170	2,950	2,870
19	2,950	1,720	1,280	970	785	760	970	840	4,170	4,170	2,950	2,440
20	2,950	1,720	1,280	1,000	840	785	970	810	5,040	4,170	2,950	2,330
21	2,800	1,720	1,280	1,000	810	735	970	810	5,350	3,900	2,800	2,230
22	2,800	1,650	1,280	970	810	735	900	840	5,670	3,900	2,800	2,230
23	2,670	1,650	1,280	970	810	735	840	840	6,000	3,660	2,800	2,230
24	2,800	1,720	1,240	970	785	735	810	840	6,750	3,660	2,670	2,130
25	2,800	1,720	1,200	970	760	712	785	840	6,750	4,170	2,670	2,130
26	2,670	1,720	1,240	970	785	690	760	840	6,750	3,900	2,670	2,130
27	2,550	1,650	1,200	970	840	690	735	870	6,750	3,900	2,670	2,030
28	2,550	1,590	1,200	935	785	712	712	900	6,750	3,660	2,670	2,030
29	2,440	1,590	1,160	970	735	690	870	870	6,750	3,660	2,670	2,030
30	2,440	1,590	1,160	970	735	668	870	870	6,750	3,660	2,670	2,030
31	2,440	1,160	900	900	735	735	870	870	3,660	2,800		
Month	Maximum		Minimum		Mean		Per square mile		Run-off in inches			
October	4,740		2,440		3,340		1.81		2.09			
November	2,440		1,590		1,930		1.04		1.16			
December	1,590		1,160		1,340		.724		.83			
January	1,160		900		1,030		.597		.64			
February	870		760		815		.437		.48			
March	840		690		765		.479		.47			
April	970		668		757		.419		.47			
May	900		608		763		.412		.48			
June	6,750		870		3,230		1.73		1.95			
July	6,350		3,660		4,740		2.55		2.95			
August	3,460		2,670		3,030		1.64		1.99			
September	3,900		2,030		2,730		1.43		1.65			
The year	6,750		608		2,050		1.11		18.06			

## Kissimmee River near Okeechobee, Fla.

Location.- Staff gage in sec. 24, T. 37 S., R. 33 E., at highway bridge on State Highway 8, about 10 miles west of Okeechobee. Zero of gage is at mean sea level. Okeechobee Flood Control District datum, and 1.33 feet below mean sea level, U. S. Coast and Geodetic Survey datum.

Drainage area.- 3,260 square miles.

Records available.- October 1930 to September 1934.

Extremes.- Maximum discharge recorded during year, 9,000 second-feet June 24, 25; maximum gage height recorded, 27.72 feet June 24; minimum discharge recorded, 1,080 second-feet Apr. 14, 15; minimum gage height recorded, 22.20 feet Apr. 15.  
1930-34: Maximum discharge recorded, 15,600 second-feet Sept. 9, 1933 (gage height, 29.32 feet); minimum, 231 second-feet May 18, 1932 (gage height, 17.80 feet).  
The flood of August 1928, resulting from hurricane, reached a peak stage of 30.3 feet (discharge, from extension of rating curve, 20,000 second-feet).

Remarks.- Records good. Gage-height record and results of one discharge measurement furnished by Okeechobee Flood Control District.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,100	3,750	2,630	1,830	1,550	1,360	1,230	1,330	1,390	7,880	6,440	4,500
2	6,100	3,750	2,630	1,770	1,530	1,360	1,230	1,330	1,420	8,240	6,440	4,500
3	6,100	3,750	2,500	1,770	1,490	1,360	1,200	1,300	1,450	8,240	6,100	4,250
4	6,100	3,750	2,500	1,770	1,490	1,330	1,200	1,300	1,490	8,240	6,100	4,250
5	6,100	3,560	2,500	1,770	1,490	1,330	1,180	1,280	1,530	8,240	5,760	4,250
6	6,100	3,560	2,500	1,770	1,450	1,330	1,180	1,250	1,570	8,240	5,760	4,250
7	5,760	3,380	2,390	1,710	1,450	1,300	1,160	1,230	1,710	8,240	5,420	4,250
8	5,760	3,380	2,390	1,710	1,450	1,300	1,140	1,230	1,900	8,240	5,420	4,250
9	5,420	3,210	2,390	1,710	1,450	1,300	1,140	1,200	1,970	8,240	5,420	4,250
10	5,420	3,210	2,280	1,710	1,450	1,300	1,120	1,200	2,070	8,240	5,080	4,250
11	5,080	3,210	2,280	1,660	1,450	1,260	1,120	1,200	2,070	7,850	5,080	4,250
12	5,080	3,050	2,280	1,660	1,450	1,280	1,120	1,180	2,070	7,850	5,080	4,250
13	5,080	3,050	2,280	1,660	1,420	1,250	1,100	1,180	2,070	7,520	5,080	4,000
14	5,080	3,050	2,180	1,660	1,420	1,250	1,080	1,180	1,970	7,160	5,080	4,000
15	4,810	2,900	2,180	1,610	1,420	1,250	1,080	1,200	2,070	7,160	5,080	4,000
16	4,810	2,900	2,180	1,610	1,390	1,230	1,120	1,230	2,070	6,800	5,080	4,250
17	4,580	2,900	2,130	1,610	1,390	1,230	1,200	1,280	2,130	6,800	5,080	4,000
18	4,810	2,760	2,080	1,570	1,390	1,250	1,250	1,280	3,200	6,440	5,080	4,000
19	4,580	2,760	2,080	1,570	1,390	1,250	1,330	1,300	2,180	6,440	4,790	4,000
20	4,580	2,760	2,080	1,610	1,390	1,230	1,450	1,300	3,580	6,440	5,080	4,000
21	4,580	2,760	2,080	1,610	1,360	1,230	1,610	1,330	4,790	6,440	5,080	4,250
22	4,810	2,630	1,990	1,610	1,360	1,200	1,770	1,360	7,160	6,440	5,080	4,250
23	4,810	2,630	1,990	1,610	1,390	1,200	1,770	1,360	8,600	6,440	5,080	4,250
24	4,580	2,650	1,990	1,610	1,360	1,200	1,660	1,360	9,000	6,100	4,790	4,250
25	4,580	2,630	1,900	1,610	1,360	1,200	1,570	1,560	9,000	6,440	4,790	4,250
26	4,360	2,760	1,900	1,570	1,360	1,180	1,490	1,360	8,600	6,440	4,790	4,250
27	4,150	2,760	1,900	1,570	1,360	1,180	1,450	1,390	8,240	6,440	4,500	4,250
28	4,150	2,630	1,900	1,570	1,360	1,180	1,420	1,420	7,880	6,440	4,500	4,250
29	3,950	2,630	1,830	1,530		1,200	1,390	1,390	7,880	6,440	4,500	4,000
30	3,950	2,630	1,830	1,530		1,230	1,360	1,390	7,880	6,440	4,500	4,000
31	3,950		1,830	1,530		1,230		1,390		6,440	4,500	
Month	Maximum					Minimum			Mean		Per square mile	Run-off in inches
October	6,100					3,950			5,010		1.54	1.78
November	3,750					2,630			3,040		.933	1.04
December	2,630					1,830			2,180		.669	.77
January	1,830					1,550			1,650		.506	.58
February	1,550					1,360			1,420		.456	.45
March	1,360					1,180			1,260		.397	.45
April	1,770					1,080			1,300		.399	.45
May	1,420					1,180			1,290		.396	.46
June	9,000					1,390			3,970		1.22	1.36
July	8,240					6,100			7,200		2.21	2.55
August	6,440					4,500			5,180		1.59	1.83
September	4,500					4,000			4,190		1.29	1.44
The year.	9,000					1,080			3,160		.969	13.16

## Istokpoga Canal near Cornwell, Fla.

Location.- Water-stage recorder in sec. 29 or 30, T. 35 S., R. 32 E., at highway bridge a quarter of a mile east of Seaboard Air Line Railway bridge,  $1\frac{1}{2}$  miles above junction with Kissimmee River, and 3 miles northwest of Cornwell.

Drainage area.- 660 square miles.

Records available.- March to September 1934.

Extremes.- Maximum discharge during period, 755 second-feet June 22; maximum gage height, 8.59 feet June 21; minimum, 1.97 second-feet Apr. 15 (gage height, 4.56 feet).  
Maximum stage known, 10.1 feet in September 1933 (discharge not determined).

Remarks.- Records excellent except those for March, latter half of August, September, and those estimated Apr. 12, 13, June 11-13, which are fair.

## Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							314	272	411	713	612	624
2							306	268	418	713	600	624
3							306	253	465	702	600	624
4							299	249	534	702	588	624
5							295	241	558	702	588	636
6							287	253	558	702	588	647
7							280	237	580	702	576	647
8							272	264	558	691	576	647
9							272	256	558	691	576	636
10							264	245	558	680	576	647
11							256	237	560	669	588	647
12							256	237	560	669	588	647
13							229	245	560	658	588	647
14							217	249	558	647	588	624
15							213	268	600	647	588	624
16							245	343	618	647	588	624
17							276	354	634	636	576	624
18							280	374	662	647	600	624
19							284	368	719	647	800	612
20							284	357	743	636	588	624
21						268	284	350	745	636	600	636
22						264	280	346	745	624	600	636
23						268	276	343	735	624	588	624
24						272	276	350	724	624	600	624
25						276	276	374	715	624	600	624
26						276	276	388	702	636	600	612
27						276	276	402	702	624	612	612
28						284	280	415	702	624	612	612
29						299	280	411	713	624	612	588
30						306	276	408	713	612	624	588
31						314		408		612	624	
Month						Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October . . . . .												
November . . . . .												
December . . . . .												
January . . . . .												
February . . . . .												
March 21-31 . . . . .						314	264	282	0.427	0.17		
April . . . . .						314	213	274	.415	.46		
May . . . . .						415	233	314	.476	.55		
June . . . . .						745	411	620	.939	1.08		
July . . . . .						713	612	657	.995	1.15		
August . . . . .						624	576	595	.902	1.04		
September . . . . .						647	588	627	.950	1.06		
The year . . . . .												

## St. Lucie Canal at Lock 1, at Lake Okeechobee, Fla.

Location.— Slope station; upper gage is water-stage recorder at Florida East Coast Railway Co. bridge in sec. 23, T. 40 S., R. 37 E., two-thirds of a mile below Lock 1, at Lake Okeechobee; lower gage is water-stage recorder at highway bridge in sec. 4, T. 40 S., R. 39 E.,  $1\frac{1}{4}$  miles east of Indiantown and 11 miles below Lock 1. Prior to Jan. 17, 1934, staff gage in sec. 23, T. 40 S., R. 37 E., about 800 feet below Lock 1. Zero of gages at mean sea level, Punta Rassa datum; prior to Jan. 17, 1934, staff gage and lower lock gage at Lock 1 referred to Okeechobee Flood Control District datum, which is 0.43 foot higher than Punta Rassa datum.

Records available.— April 1931 to September 1934.

Extremes.— Maximum daily discharge during year, 4,740 second-feet Oct. 25; minimum, 50 second-feet during several days December, March, April, May.

1931-34: Maximum daily discharge recorded, 4,990 second-feet Apr. 1, 1931; practically no flow (50 second-feet or less, consisting of leakage) during several days in each year when canal is closed.

Remarks.— Records fair between 1,000 and 3,000 second-feet, good above and poor below. Gage heights for lock gages and results of some measurements furnished by Okeechobee Flood Control District. Daily discharge obtained by applying mean daily stage at upper and lower gages to base rating curve and backwater curves derived from measured slope between upper and lower gages at time of measured discharge. Records of stage prior to Jan. 17 from daily readings at Locks 1 and 2 reduced to equivalent stage at Florida East Coast Railway Co. bridge and Indiantown highway bridge.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,380	4,550	4,250	75	190	275	170	100	3,750	4,070	4,120	4,120
2	4,390	4,530	3,150	140	175	125	170	110	3,780	4,000	4,080	4,160
3	4,420	4,600	4,160	100	200	120	130	125	3,820	4,030	4,000	4,180
4	4,380	4,570	4,270	150	575	450	150	120	3,850	4,070	4,120	4,200
5	4,380	4,620	4,200	150	500	450	170	130	3,820	4,070	4,170	4,220
6	3,940	4,550	3,960	160	400	170	150	80	3,820	4,070	4,170	4,220
7	4,480	4,540	280	200	440	200	140	85	3,820	3,930	4,150	4,230
8	4,640	4,500	1,600	225	400	200	80	170	3,780	3,970	4,170	4,190
9	4,640	4,530	100	175	140	120	50	170	3,750	3,970	4,140	4,180
10	4,580	4,450	140	150	250	120	75	100	3,800	3,930	4,140	4,140
11	4,300	4,450	4,100	1,200	100	50	75	100	3,800	4,030	4,180	4,140
12	4,550	4,470	530	3,050	70	90	1,300	60	3,900	4,030	4,180	4,140
13	4,550	4,480	50	280	125	450	2,500	60	3,820	4,070	4,180	4,130
14	4,470	4,460	900	125	100	430	80	120	3,850	4,030	4,170	4,150
15	4,550	4,460	3,830	200	800	1,800	140	50	4,020	4,030	4,170	4,210
16	4,600	4,350	2,600	110	1,150	600	520	200	3,930	4,030	4,160	4,250
17	4,600	4,350	1,150	200	170	100	1,420	70	3,930	4,070	4,200	4,220
18	4,580	4,400	1,500	260	240	100	170	140	4,050	4,030	4,240	4,220
19	4,580	4,030	1,500	285	150	75	75	320	4,080	3,820	4,240	4,220
20	4,560	4,050	200	240	430	50	50	420	4,020	2,450	4,270	4,260
21	4,440	4,230	200	250	150	1,150	100	70	3,970	3,430	4,280	4,330
22	4,520	4,170	500	250	120	50	125	50	3,950	3,570	4,280	4,330
23	4,500	3,950	350	225	100	350	125	50	3,950	4,030	4,200	4,300
24	4,650	1,500	350	250	100	520	280	80	3,960	4,070	4,180	4,300
25	4,740	580	480	220	100	400	500	70	3,960	4,070	4,170	4,290
26	4,570	500	650	350	475	300	1,600	50	3,950	4,070	4,180	4,280
27	4,560	500	550	470	2,050	75	50	100	3,950	4,120	4,190	4,280
28	4,600	1,250	350	800	2,100	75	80	50	3,950	4,150	4,210	4,280
29	4,490	1,550	250	2,650	100	120	2,400	4,000	4,130	4,230	4,280	4,280
30	4,460	2,000	250	2,450	75	75	3,300	4,000	4,120	4,250	4,280	4,280
31	4,450		270	400	60	60	3,900		4,120	4,140		
Month	Maximum					Minimum		Mean		Per square mite	Run-off in inches	
October	4,740					3,940		4,500				
November	4,620					500		3,640				
December	4,620					50		1,480				
January	3,050					75		509				
February	2,100					70		421				
March	1,800					50		301				
April	2,500					50		356				
May	3,800					50		411				
June	4,080					3,750		3,900				
July	4,150					2,750		3,950				
August	4,280					4,000		4,180				
September	4,530					4,120		4,220				
The year	4,740					50		2,530				

## Fisheating Creek at Palmdale, Fla.

Location.- Staff gage in sec. 3, T. 41 S., R. 30 E., at highway bridge 1 mile south of Palmdale. Zero of gage is 37.00 feet above mean sea level, Okeechobee Flood Control District datum.

Drainage area.- 305 square miles.

Records available.- April 1931 to September 1934.

Extremes.- Maximum discharge recorded during year, 920 second-feet Aug. 9; maximum gage height recorded, 6.30 feet Sept. 22; no flow May 2, 3 (gage height, 1.48 feet). 1931-34: Maximum discharge, 6,460 second-feet Sept. 6, 1933 (gage height, 6.60 feet); no flow at times each year.

Remarks.- Records fair except those under 25 second-feet, which are poor. Gage-height record and results of some discharge measurements furnished by Okeechobee Flood Control District.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	320	37	24	2.5	1.8	35	8.6	0.1	20	31	129	123
2	280	87	24	2.2	2.5	33	8.8	0	25	38	129	123
3	240	92	26	2.0	3.5	31	7.8	0	62	55	160	117
4	210	92	26	1.8	3.3	28	6.2	1.0	78	70	225	117
5	210	87	24	1.6	3.0	27	4.2	1.3	78	78	240	106
6	195	82	26	1.6	2.4	26	3.3	1.2	62	74	300	112
7	170	74	23	1.8	2.0	24	2.6	1.0	62	62	345	112
8	160	70	22	1.6	1.7	21	2.6	1.0	74	52	590	112
9	152	62	21	2.0	1.7	3.3	2.5	.7	78	48	870	117
10	143	58	18	2.3	1.4	13	2.1	.5	78	70	770	117
11	136	52	16	2.2	1.6	14	2.0	.3	92	101	590	117
12	129	48	15	2.1	2.0	11	1.9	.2	92	112	550	112
13	117	45	15	2.3	6.2	7.6	1.6	.2	96	112	515	117
14	112	40	13	2.3	10	5.6	1.1	.2	101	106	490	117
15	112	34	12	2.1	7.8	4.1	1.4	.2	106	92	450	136
16	117	30	11	2.1	4.6	3.8	1.2	.3	106	78	450	160
17	112	26	9.6	1.7	3.3	3.4	1.6	1.8	106	70	450	170
18	106	23	9.0	1.7	2.6	9.6	1.8	26	96	66	450	195
19	106	20	9.3	1.6	2.4	14	2.2	16	96	58	370	260
20	101	17	8.4	6.8	2.3	11	3.4	8.8	96	52	320	450
21	106	15	7.4	17	2.3	7.6	2.5	8.8	92	48	300	515
22	101	14	6.0	19	3.2	7.2	2.3	22	92	48	320	720
23	101	12	5.6	15	4.8	6.2	1.8	42	82	48	240	590
24	96	9.9	4.7	10	5.2	4.8	.9	52	82	62	225	550
25	87	9.6	4.7	7.2	4.6	3.5	.7	52	70	62	195	450
26	87	16	4.4	4.4	7.0	2.7	.5	52	66	62	170	370
27	87	20	3.5	4.0	20	2.1	.3	66	58	92	152	320
28	82	20	3.4	3.2	34	2.5	.2	70	49	136	152	320
29	82	24	3.1	2.8		3.4	.1	55	41	160	143	280
30	82	24	2.6	2.3		6.8	.1	42	33	152	152	260
31	82		2.4	2.0		7.0		31		136	136	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				320	82	136	0.446		0.51			
November				82	9.6	43	.141		.15			
December				26	2.4	12.9	.042		.05			
January				19	1.6	4.23	.014		.02			
February				34	1.4	5.26	.017		.02			
March				35	2.1	12.2	.040		.05			
April				8.8	.1	2.54	.0063		.009			
May				70	0	17.9	.059		.07			
June				106	20	75.6	.246		.28			
July				160	31	78.4	.257		.30			
August				870	129	341	1.12		1.29			
September				720	106	246	.807		.90			
The year.				870	0	81.7	.268		3.66			

## Caloosahatchee River near Citrus Center, Fla.

Location.- Water-stage recorder in sec. 27, T. 42 S., R. 30 E., at Atlantic Coast Line Railroad bridge, 4 miles below Lock 2,  $4\frac{1}{2}$  miles southwest of Citrus Center, and 5 miles above Lock 3. Zero of gage is at mean sea level, Punta Rassa datum.

Drainage area.- Indeterminate.

Records available.- April to September 1934.

Extremes.- Maximum discharge during period, 1,110 second-feet June 8 and Sept. 23 (gage height, 12.30 feet); minimum, 35 second-feet May 1 (gage height, 6.42 feet).  
Maximum stage known, 20.5 feet in 1924 (discharge not determined).

Remarks.- Records poor. Record includes some flow from Lake Okeechobee.

## Discharge, in second-feet, 1934

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								35	903	471	556	528
2								36	903	474	556	495
3								37	975	420	582	466
4								37	1,030	371	594	420
5								36	1,030	355	630	407
6								36	1,050	420	667	420
7								40	1,080	477	750	407
8								65	1,110	420	720	368
9								72	1,080	420	706	367
10								56	1,050	391	680	326
11								44	1,030	343	642	268
12								39	975	291	618	291
13								35	926	337	650	407
14								50	903	375	654	445
15								355	860	335	654	569
16								138	840	445	654	606
17								375	801	594	654	654
18								618	766	582	642	706
19								38	618	720	556	618
20								38	630	680	475	950
21								39	720	630	456	594
22								38	766	606	445	618
23								42	750	582	434	630
24								46	735	556	445	594
25								45	706	528	630	556
26								42	680	495	618	528
27								41	750	476	594	495
28								39	903	456	676	476
29								37	950	434	582	466
30								36	975	420	556	512
31								950		569	542	840
Month				Maximum		Minimum		Mean		Per square mile	Run-off in inches	
October . . . . .												
November . . . . .												
December . . . . .												
January . . . . .												
February . . . . .												
March . . . . .												
April 19-30 . . . . .				46		36		40.0				
May . . . . .				975		35		395				
June . . . . .				1,110		420		796				
July . . . . .				630		291		462				
August . . . . .				750		466		607				
September . . . . .				1,110		268		662				
The year . . . . .												

## Peace Creek at Zolfo Springs, Fla.

Location.- Water-stage recorder at bridge on U. S. Highway 17, about sec. 22, T. 34 S., R. 25 E., 0.8 mile north of Zolfo Springs.

Drainage area.- 785 square miles.

Records available.- September 1933 to September 1934.

Extremes.- Maximum discharge during period, 26,300 second-feet Sept. 6, 1933 (gage height, 20.05 feet); minimum, 175 second-feet Apr. 15, 1934 (gage height, 1.67 feet). Maximum stage known, that of Sept. 6, 1933.

Remarks.- Records good except those estimated Sept. 1-5, 8-10, 1933, June 13 to July 4, Sept. 2-12, Sept. 15-30, 1934, which are fair.

Discharge, in second-feet, 1933-34

1933												
Sept. 1	370	Sept. 6	26,000	Sept. 11	10,800	Sept. 16	6,030	Sept. 21	2,780	Sept. 26	1,900	
2	360	7	22,500	12	10,000	17	5,210	22	2,520	27	1,820	
3	350	9	19,000	13	8,790	18	4,280	23	2,340	28	1,740	
4	1,000	9	15,000	14	7,690	19	3,580	24	2,180	29	1,630	
5	7,000	10	12,500	15	6,820	20	3,130	25	2,040	30	1,560	
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,460	530	323	193	208	323	303	670	572	2,650	1,500	1,010
2	1,400	516	313	186	215	323	283	628	516	2,460	1,670	950
3	1,310	516	293	186	215	323	265	628	614	2,180	1,670	890
4	1,250	502	283	186	208	313	256	656	625	2,040	1,630	780
5	1,190	502	274	185	208	303	239	670	642	1,860	1,530	1,000
6	1,190	499	274	183	208	303	231	684	726	1,780	1,560	1,200
7	1,100	474	266	179	208	293	223	656	810	1,700	1,940	1,100
8	1,070	460	265	190	208	274	215	656	894	1,670	2,290	980
9	990	446	256	193	200	265	208	670	810	1,630	2,180	1,100
10	950	418	247	200	193	265	200	586	670	1,600	1,790	1,200
11	894	418	247	200	193	313	193	558	600	1,530	1,530	1,100
12	866	404	239	193	200	323	193	514	586	1,500	1,820	1,000
13	838	390	239	193	208	365	183	754	810	1,430	1,940	922
14	782	365	231	186	208	488	179	866	1,310	1,400	1,900	922
15	754	365	231	186	200	558	183	894	2,130	1,370	1,940	1,200
16	698	354	223	180	200	544	193	810	3,290	1,310	1,800	1,700
17	698	343	223	176	200	488	558	838	4,480	1,250	1,860	1,800
18	694	333	223	176	193	446	539	810	6,030	1,400	1,740	1,800
19	656	323	215	179	200	418	782	782	7,390	1,400	1,560	1,700
20	628	323	215	193	208	378	754	684	8,630	1,340	1,430	1,700
21	628	313	215	208	208	343	810	628	9,490	1,250	1,310	1,900
22	656	303	215	208	215	323	866	754	9,850	1,220	1,190	1,800
23	670	303	208	200	265	303	594	514	9,670	1,190	1,100	1,700
24	656	293	208	200	274	283	838	544	9,130	1,280	1,040	1,600
25	656	303	200	200	256	274	782	516	8,310	1,400	980	1,600
26	642	365	200	193	265	265	684	558	7,390	1,400	950	1,500
27	628	365	200	193	365	247	614	684	6,180	1,400	922	1,400
28	600	354	200	193	343	247	558	754	4,990	1,370	894	1,300
29	572	354	193	193		293	544	866	4,100	1,340	1,160	1,200
30	544	343	193	215		313	754	810	3,360	1,310	1,280	1,100
31	530		193	208		313		670		1,310	1,160	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
1933												
September. . . . .					26,000	350	6,360	8.10	9.04			
1933-34												
October. . . . .					1,460	530	845	1.08	1.24			
November. . . . .					530	293	392	.499	.56			
December. . . . .					323	193	236	.301	.35			
January. . . . .					215	176	192	.245	.28			
February. . . . .					365	193	224	.285	.30			
March. . . . .					558	247	339	.432	.50			
April. . . . .					594	179	461	.587	.66			
May. . . . .					594	516	594	.854	1.02			
June. . . . .					9,850	516	3,820	4.87	5.43			
July. . . . .					2,650	1,190	1,550	1.97	2.27			
August. . . . .					2,290	894	1,530	1.95	2.25			
September. . . . .					1,800	780	1,300	1.66	1.85			
The year. . . . .					9,850	176	965	1.23	16.70			



## Peace Creek at Arcadia, Fla.

Location.- Water-stage recorder in sec. 26, T. 37 S., R. 24 E., at highway bridge on State Highway 18 half a mile west of Arcadia. Zero of gage is 8.23 feet above mean sea level.

Drainage area.- 1,330 square miles.

Records available.- April 1931 to September 1934.

Extremes.- Maximum discharge during year, 10,400 second-feet June 23 (gage height, 12.80 feet); minimum, 156 second-feet Apr. 18 (gage height, 0.55 foot).  
1931-34: Maximum discharge, 36,200 second-feet Sept. 9, 1933 (gage height, 17.67 feet); minimum discharge, 56 second-feet May 13-17, 1932; minimum gage height, -0.10 foot May 16, 1933.  
Maximum stage known, 18.3 feet 1912 (estimated discharge, 43,000 second-feet).

Remarks.- Records good.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,100	605	366	202	214	366	296	765	745	3,320	1,990	1,670
2	1,990	605	339	200	210	330	286	725	625	3,260	2,370	1,420
3	1,830	605	333	194	218	321	268	705	900	3,140	2,420	1,370
4	1,730	585	309	192	220	330	246	745	1,370	3,140	2,370	1,240
5	1,670	565	300	190	212	318	232	765	1,570	2,910	2,260	1,150
6	1,620	565	288	188	208	303	220	765	1,620	2,800	2,210	1,420
7	1,570	530	263	190	202	306	208	765	1,730	2,640	2,320	1,730
8	1,470	512	273	188	200	290	200	745	2,050	2,580	2,640	1,520
9	1,420	495	278	188	196	276	190	765	2,050	2,480	2,910	1,370
10	1,320	478	278	190	190	263	186	765	1,730	2,370	2,910	1,470
11	1,240	446	268	202	190	260	180	665	1,320	2,210	2,480	1,620
12	1,190	439	263	204	190	293	179	605	1,060	2,150	2,260	1,520
13	1,120	419	256	202	190	315	168	645	1,100	2,100	2,480	1,320
14	1,060	409	248	202	192	357	161	788	1,670	1,990	2,640	1,240
15	1,010	393	242	200	200	446	161	922	2,150	1,990	2,690	1,420
16	945	376	239	196	196	495	157	968	3,140	1,940	2,800	2,100
17	922	372	237	194	190	495	190	1,080	4,510	1,830	2,800	2,630
18	878	351	232	190	184	460	478	1,620	5,780	2,420	2,690	2,590
19	832	354	230	188	190	422	788	1,620	7,180	2,590	2,590	2,640
20	810	348	228	194	194	396	788	1,320	8,350	2,320	2,370	3,820
21	788	342	226	196	194	366	788	1,040	9,420	2,210	2,150	6,060
22	765	336	220	214	202	330	810	900	10,300	2,100	1,990	6,480
23	765	327	218	218	222	303	978	945	10,300	1,890	1,780	5,780
24	768	318	218	218	258	278	900	810	9,920	1,940	1,620	4,590
25	765	330	216	210	286	273	900	705	9,260	3,200	1,420	3,140
26	765	336	214	202	288	253	810	645	8,350	3,630	1,320	2,750
27	745	390	206	194	300	239	725	685	7,180	3,140	1,320	2,420
28	705	399	204	192	369	253	645	788	5,920	2,640	1,240	2,150
29	685	384	202	190		253	605	878	4,880	2,370	1,220	1,880
30	665	378	202	192		303	625	945	3,930	2,210	1,570	1,570
31	625		202	210		303		900		2,050	1,730	
Month	Maximum					Minimum	Mean	Per square mile		Run-off in inches		
October	2,100					625	1,120	0.842		0.97		
November	605					318	433	.326		.36		
December	366					202	252	.189		.22		
January	218					168	198	.149		.17		
February	369					184	218	.164		.17		
March	495					239	329	.247		.28		
April	900					157	442	.332		.37		
May	1,620					605	870	.654		.75		
June	10,300					625	4,340	3.26		3.64		
July	3,630					1,830	2,500	1.88		2.17		
August	2,910					1,220	2,180	1.64		1.89		
September	6,480					1,150	2,390	1.80		2.01		
The year.	10,300					157	1,270	.955		13.00		

## Kissengen Spring near Bartow, Fla.

Location.- In sec. 28, T. 30 S., R. 25 E., about 4½ miles southeast of Bartow.  
Records available.- Discharge measurements from March 1932 to September 1934. Single measurements only during 1917, 1929-31.  
Extremes.- 1932-34: Maximum discharge measured, that of Oct. 11, 1933; minimum, 19.2 second-feet June 11, 1932.  
Remarks.- Discharge measurements made about monthly from footbridge at outlet of pool.

## Discharge measurements, in second-feet, 1933-34

Oct. 11	43.6	Feb. 13	32.0	June 12	29.1
Nov. 13	40.6	Mar. 20	30.6	Aug. 17	36.5
Dec. 5	37.6	Apr. 17	24.5		
Jan. 15	55.4	May 3	24.9		

## ALAFIA RIVER BASIN

## Alafia River at Lithia, Fla.

Location.- Staff gage in sec. 16, T. 30 S., R. 21 E., at Marvinia Bridge, 1 mile north-west of Lithia.  
Drainage area.- 336 square miles.  
Records available.- January 1933 to September 1934.  
Extremes.- Maximum discharge recorded during year, 8,060 second-feet June 16 (gage height, 18.40 feet); minimum recorded, 40 second-feet Apr. 14 (gage height, 0.66 foot).  
 1933-34: Maximum discharge, estimated, 25,000 second-feet Sept. 7, 1933 (gage height, 25.6 feet); minimum, 10 second-feet May 27, 1933 (gage height, 0.50 foot).  
Remarks.- Records good between 70 and 3,000 second-feet, fair below and poor above. Discharge interpolated Jan. 20, Apr. 15, May 27, July 1, Aug. 12.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	315	115	88	69	99	171	163	97	78	652	1,180	714		
2	299	115	85	69	155	147	123	104	57	750	1,390	502		
3	267	131	85	69	131	139	97	104	72	642	1,330	283		
4	235	131	78	76	115	131	86	107	78	553	1,020	203		
5	219	131	75	75	102	147	72	97	139	1,140	642	203		
6	235	131	75	72	88	155	63	91	163	1,100	598	187		
7	251	123	75	72	81	139	57	115	171	1,060	332	219		
8	219	123	81	72	75	123	54	131	155	1,220	332	179		
9	203	115	78	72	66	107	57	131	155	940	502	179		
10	179	115	81	101	63	104	57	123	123	769	536	171		
11	171	107	78	81	70	267	51	89	107	519	434	163		
12	163	101	78	72	74	315	45	89	107	383	547	163		
13	155	101	78	69	99	251	42	77	179	299	660	171		
14	147	97	74	69	95	203	40	64	624	267	696	155		
15	147	91	74	68	83	171	50	64	2,700	251	1,200	519		
16	131	85	74	63	72	139	60	69	7,300	251	1,080	714		
17	139	81	74	60	66	131	171	66	7,110	267	788	788		
18	163	78	70	58	63	123	283	101	3,910	1,020	642	807		
19	163	81	70	57	88	115	536	101	2,260	1,040	468	940		
20	155	81	70	80	139	107	519	147	1,830	788	519	1,270		
21	147	81	70	101	115	101	660	131	1,100	485	400	1,610		
22	163	83	74	94	123	86	553	123	769	400	315	1,570		
23	171	80	70	91	171	81	366	91	588	315	267	1,100		
24	171	80	70	78	163	78	267	72	502	485	251	624		
25	163	80	70	75	147	75	179	72	468	940	235	570		
26	155	93	70	69	163	72	115	69	366	1,440	251	553		
27	139	115	70	68	251	66	107	83	383	1,390	219	434		
28	131	99	70	66	203	51	91	97	349	1,100	203	299		
29	131	99	68	69	147	115	97	82	532	1,180	366	251		
30	123	93	69	91	147	147	91	101	553	1,350	451	203		
31	123		69	81	131	131		91		1,160	714			
Month					Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October					315		123		180		0.553		0.62	
November					131		78		101		.301		.34	
December					88		69		74.5		.222		.26	
January					101		57		74.4		.221		.25	
February					251		63		115		.353		.35	
March					315		66		137		.403		.47	
April					660		40		172		.512		.57	
May					147		64		96.6		.283		.33	
June					7,300		57		1,090		3.24		3.62	
July					1,440		251		779		2.32		2.68	
August					1,390		203		699		1.78		2.05	
September					1,610		155		523		1.56		1.74	
The year					7,300		40		329		.979		13.23	

## Hillsboro River near Harney, Fla.

Location.- Staff gage on line between secs. 12 and 13, T. 28 S., R. 19 E., at Fowler Street Bridge, 2½ miles north of Harney and 4 miles west of Thonotosassa. Zero of gage is 19.14 feet above mean sea level.

Drainage area.- 525 square miles.

Records available.- October 1933 to September 1934.

Extremes.- Maximum discharge recorded during period, 11,700 second-feet June 20 (gage height, 13.42 feet); minimum discharge recorded, 99 second-feet Jan. 10-12, 16-19; minimum gage height recorded, 1.78 feet Nov. 29, 30.

Remarks.- Records good except those for October, November, May 15 to June 14, and July, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		180	109	104	113	168	148	190	178	4,160	1,960	495
2		175	107	104	130	168	142	190	175	3,620	2,030	495
3		172	111	102	130	168	142	180	215	3,270	2,030	472
4		168	111	102	130	170	140	180	215	3,270	2,030	450
5		165	111	102	130	170	135	188	215	2,590	2,030	450
6		160	109	100	128	168	130	185	200	2,310	1,960	390
7		158	109	100	125	165	130	190	195	2,100	1,890	390
8		152	109	100	123	158	125	192	180	1,890	1,890	370
9		145	109	100	119	155	117	190	170	1,750	1,820	370
10		140	107	99	115	170	115	188	160	1,610	1,750	430
11		138	107	99	109	182	109	185	150	1,490	1,820	410
12		135	105	99	109	180	109	180	160	1,360	1,960	390
13		130	105	100	109	178	105	178	430	1,240	2,030	370
14		128	105	100	109	178	105	170	785	1,120	2,100	410
15		125	105	100	105	175	102	195	1,300	1,000	2,240	430
16		121	105	99	104	172	130	178	2,310	1,000	2,240	472
17	278	119	107	99	105	172	150	175	4,970	1,000	2,240	540
18	260	115	107	99	104	170	198	172	9,100	1,000	2,100	630
19	245	113	105	99	113	165	215	178	11,000	1,180	1,890	785
20	245	111	107	107	115	162	230	165	11,700	1,540	1,680	840
21	230	111	107	107	113	155	245	178	11,400	1,240	1,480	1,000
22	230	111	105	109	125	145	260	185	10,300	1,180	1,360	1,120
23	230	111	105	109	130	140	295	195	9,500	1,120	1,240	1,300
24	215	111	105	109	132	130	295	192	8,700	1,060	1,120	1,360
25	215	109	104	105	128	125	295	198	7,950	1,000	1,000	1,360
26	200	109	105	105	148	119	260	192	7,200	1,060	840	1,240
27	198	109	104	105	166	111	245	188	6,550	1,180	785	1,120
28	192	107	104	105	160	138	230	180	5,900	1,240	730	1,000
29	190	105	102	107		142	215	178	5,300	1,420	630	950
30	188	105	104	107		150	200	185	4,550	1,680	540	840
31	185		104	104		152		190		1,890	495	
Month				Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October 17-31				278	185	220	0.419	0.23				
November				160	105	131	.250	.28				
December				111	102	106	.202	.23				
January				109	99	103	.196	.23				
February				168	104	122	.232	.24				
March				182	111	158	.301	.35				
April				295	102	177	.337	.58				
May				198	165	184	.350	.40				
June				11,700	150	4,040	7.70	8.59				
July				4,160	1,000	1,700	3.24	3.74				
August				2,240	495	1,610	3.07	3.54				
September				1,360	370	695	1.32	1.47				
The year												

## Sulphur Spring at Tampa, Fla.

Location.- In sec. 25, T. 28 S., R. 18 E., at Sulphur Springs, in Tampa.

Records available.- Discharge measurements from February 1931 to September 1934. Single measurements only during 1917, 1929-30.

Extremes.- 1931-34: Maximum discharge measured, 82.6 second-feet Aug. 2, 1933; minimum, that of Feb. 12, 1934.

Remarks.- Discharge measurements made about monthly at or near footbridge over spring run just above its junction with Hillsboro River. Measurements fair only because of underwater vegetal growth and varying backwater from tide in Hillsboro River. No measurements July to September.

## Discharge measurements, in second-feet, 1933-34

Oct. 18	57.4	Feb. 12	12.9	May 4	27.7
Dec. 4	41.1	Mar. 19	29.2	June 11	54.1
Jan. 8	31.1	Apr. 16	47.9		

## WEEKIWACHEE RIVER BASIN

## Weekiwachee Spring near Brooksville, Fla.

Location.- In sec. 2, T. 23 S., R. 17 E., at head of Weekiwachee River, about 12 miles southwest of Brooksville.

Records available.- Discharge measurements from February 1931 to September 1934. Single measurements only during 1917, 1929-30.

Extremes.- 1931-34: Maximum discharge measured, 231 second-feet May 6, 1931; minimum, 106 second-feet Feb. 14, 1933.

Remarks.- Discharge measurements fair, made about monthly from boat at outlet of pool. No measurements made July to September.

## Discharge measurements, in second-feet, 1933-34

Oct. 18	163	Jan. 8	161	Apr. 16	143
Nov. 13	155	Feb. 12	169	May 4	143
Dec. 4	153	Mar. 19	139	June 11	146

## Withlacoochee River at Trilby, Fla.

Location.— Staff gage in sec. 22, T. 23 S., R. 21 E., at highway bridge 1 mile north of Trilby.

Drainage area.— 780 square miles.

Records available.— August 1928 to February 1929, February 1930 to September 1934.

Extremes.— Maximum discharge recorded during year, 8,840 second-feet June 21 (gage height, 20.5 feet); minimum discharge recorded, 82 second-feet Jan. 27-31, Apr. 13; minimum gage height recorded, 1.00 foot Jan. 28-31.

1928-29, 1930-34: Maximum discharge recorded, that of June 21, 1934; minimum, 11 second-feet Apr. 29, May 14-17, 22-24, 1932 (gage height, -0.48 foot).

Remarks.— Records fair October to May, good thereafter. Discharge interpolated May 4.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,270	387	153	85	71	122	104	207	189	4,180	1,760	815
2	2,150	376	153	85	88	135	104	227	180	3,830	1,720	740
3	2,040	365	144	82	104	153	108	247	189	3,700	1,690	711
4	1,900	354	135	82	122	153	108	252	198	3,450	1,660	669
5	1,760	332	135	82	112	153	104	257	217	3,350	1,630	642
6	1,660	321	135	82	108	144	100	257	237	3,200	1,660	616
7	1,280	310	135	82	104	135	95	267	267	3,000	1,690	590
8	1,590	299	126	78	96	135	92	267	268	2,730	1,720	577
9	1,280	288	122	78	92	135	85	257	277	2,430	1,760	564
10	1,180	277	122	74	88	135	78	247	267	2,390	1,820	552
11	1,090	267	112	74	85	135	71	247	267	2,230	1,900	540
12	1,010	267	112	74	85	144	65	247	257	2,110	1,820	540
13	935	247	112	71	85	135	62	247	310	1,930	1,760	516
14	890	247	112	74	82	135	65	247	409	1,820	1,690	528
15	830	227	104	71	82	144	71	237	770	1,760	1,630	564
16	785	227	104	68	78	153	88	227	1,930	1,690	1,570	616
17	725	207	104	68	78	144	96	247	3,870	1,630	1,510	642
18	683	207	104	68	74	144	126	257	6,860	1,600	1,390	669
19	642	207	104	68	78	144	135	237	7,760	1,570	1,330	770
20	616	198	104	68	78	144	180	237	8,460	1,570	1,220	800
21	577	189	100	68	82	135	198	227	8,840	1,540	1,150	815
22	564	189	100	68	82	155	207	227	8,660	1,510	1,110	830
23	552	180	96	65	85	126	144	227	8,300	1,570	1,090	815
24	540	171	96	65	82	126	162	207	7,940	1,630	1,010	800
25	516	171	96	65	82	122	153	207	7,220	1,630	970	785
26	492	171	92	65	88	117	153	189	6,510	1,630	950	815
27	456	171	92	62	100	117	153	189	5,900	1,570	920	860
28	444	162	88	62	104	117	144	207	5,160	1,570	905	875
29	420	153	88	62	112	112	171	207	4,720	1,570	875	860
30	409	153	88	62	112	112	189	198	4,240	1,660	845	830
31	398		88	62		108		189		1,760	815	
Month	Maximum					Minimum			Mean		Per square rile	Run-off in inches
October	2,270					398			983		1.26	1.45
November	387					153			244		.313	.35
December	153					88			111		.142	.16
January	85					62			71.6		.092	.11
February	122					71			89.1		.114	.12
March	153					108			134		.172	.20
April	207					62			120		.154	.17
May	267					189			232		.297	.34
June	8,840					180			3,360		4.31	4.81
July	4,180					1,510			2,190		2.81	3.24
August	1,900					815			1,410		1.81	2.09
September	875					516			698		.695	1.00
The year.	8,840					62			806		1.03	14.04

## Withlacoochee River near Holder, Fla.

Location.- Water-stage recorder in sec. 19, T. 17 S., R. 20 E., at Stokes Ferry bridge, 4½ miles northeast of Holder. Zero of gage is 27.59 feet above mean sea level.

Drainage area.- 1,660 square miles.

Records available.- August 1928 to February 1929; August 1931 to September 1934.

Extremes.- Maximum discharge during year, 6,740 second-feet July 8-13; maximum gage height, 11.63 feet July 9, 10; minimum, 361 second-feet Apr. 14 (gage height, 0.62 foot).

1928-29, 1931-34: Maximum discharge, that of July 8-13, 1934; maximum gage height, that of July 9, 10, 1934; minimum discharge, 144 second-feet Feb. 1, 1933; minimum gage height, -0.37 foot May 14, 1932.

Remarks.- Records good.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,480	2,170	1,070	785	635	610	520	660	860	5,660	4,460	3,040
2	5,300	2,120	1,040	785	685	610	510	660	835	5,860	4,340	2,980
3	5,300	2,080	1,010	760	685	622	500	660	835	6,060	4,240	2,860
4	5,140	2,040	1,010	735	710	635	481	660	835	6,280	4,140	2,800
5	4,980	1,960	980	735	710	635	453	635	860	6,500	3,940	2,740
6	4,980	1,920	1,010	735	685	660	436	635	860	6,500	3,850	2,680
7	4,840	1,880	1,010	735	660	660	436	635	860	6,500	3,850	2,620
8	4,700	1,800	1,010	710	660	685	418	622	860	6,740	3,850	2,520
9	4,580	1,760	1,010	710	660	360	410	622	835	6,740	3,850	2,470
10	4,580	1,720	1,040	710	635	685	402	610	835	6,740	3,760	2,420
11	4,460	1,650	1,010	710	660	660	385	598	835	6,740	3,760	2,320
12	4,340	1,610	1,010	710	660	660	377	586	835	6,740	3,850	2,270
13	4,240	1,580	1,010	710	660	635	369	574	950	6,740	3,760	2,220
14	4,140	1,550	1,010	710	635	635	361	622	1,040	6,500	3,760	2,220
15	3,940	1,510	1,010	710	622	622	377	1,040	1,310	6,500	3,670	2,220
16	3,850	1,480	980	710	598	610	418	1,070	1,480	6,280	3,670	2,170
17	3,670	1,440	950	685	598	586	436	1,100	1,760	6,060	3,670	2,120
18	3,690	1,400	950	685	574	574	490	1,100	2,040	5,860	3,590	2,120
19	3,430	1,370	950	685	563	563	563	1,070	2,220	5,860	3,590	2,120
20	3,290	1,340	950	685	552	552	622	1,070	2,320	5,480	3,510	2,170
21	3,220	1,310	920	660	563	541	635	1,070	2,420	5,480	3,430	2,170
22	3,100	1,250	890	660	574	541	635	1,040	2,520	5,300	3,430	2,170
23	3,040	1,250	890	635	574	520	635	1,010	2,680	5,860	3,560	2,170
24	2,920	1,190	890	635	574	510	635	950	2,860	5,660	3,290	2,170
25	2,800	1,160	860	635	563	500	660	950	3,160	5,480	3,290	2,120
26	2,740	1,160	860	635	574	490	635	920	3,510	5,300	3,220	2,120
27	2,620	1,130	835	635	610	490	635	860	3,940	5,140	3,160	2,120
28	2,520	1,130	810	622	610	510	635	920	4,460	4,980	3,100	2,120
29	2,420	1,100	810	622	500	500	660	920	4,980	4,840	3,160	2,080
30	2,370	1,070	785	610	510	510	660	920	5,300	4,700	3,160	2,080
31	2,270		785	610	510	510	660	890	4,580	4,580	3,100	
Month	Maximum				Minimum				Mean		Per square mile	Run-off in inches
October	5,480				2,270				3,830		2.31	2.66
November	2,170				1,070				1,540		.228	1.04
December	1,070				785				947		.570	.66
January	785				610				689		.415	.48
February	710				552				625		.377	.39
March	685				490				586		.353	.41
April	660				361				513		.309	.34
May	1,100				574				828		.499	.58
June	5,300				835				1,970		1.19	1.33
July	6,740				4,580				5,920		3.57	4.12
August	4,460				3,100				3,640		2.19	2.52
September	3,040				2,080				2,350		1.42	1.58
The year.	6,740				361				1,970		1.17	16.11

## Blue Springs near Dunnellon, Fla.

Location.- In sec. 12, T. 18 S., R. 18 E., 4 miles northeast of Dunnellon.

Records available.- Discharge measurements from February 1931 to September 1934. Single measurements only in 1907, 1917, 1929-30.

Extremes.- 1931-34: Maximum discharge measured, that of Oct. 4, 1933; minimum, 487 second-feet Oct. 3, 1932.

Remarks.- Discharge measurements made monthly at highway bridge 5 miles below springs. Measured discharge is practically all flow from spring, as surface run-off is negligible except after heavy rains.

## Discharge measurements, in second-feet, 1933-34

Oct. 4	510	Feb. 19	648	June 6	715
Nov. 3	873	Mar. 14	644	July 5	769
Dec. 11	771	Apr. 12	652	Aug. 10	753
Jan. 9	768	May 9	627	Sept. 6	836

## SUWANNEE RIVER BASIN

## Suwannee River near Benton, Fla.

Location.- Chain gage in sec. 4, T. 1 N., R. 16 E., at highway bridge known as Turners Bridge, about 6 miles northwest of Benton and 13 miles east of Jasper.

Drainage area.- About 1,500 square miles. Watershed in Okefenokee Swamp indeterminate.

Records available.- December 1931 to June 1934 (discontinued).

Extremes.- Maximum discharge recorded during period, 450 second-feet Oct. 1 (gage height, 3.05 feet); minimum recorded, 1.3 second-feet May 21 (gage height, 1.16 feet).

1931-34: Maximum discharge, 9,440 second-feet Feb. 14, 15, 1933 (gage height, 50.99 feet); minimum, 0.4 second-feet May 18, 1932 (gage height, 1.04 feet).

Remarks.- Records good.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	450	199	34	15	31	56	31	4.4	52			
2	435	135	28	18	20	56	34	6.4	103			
3	362	180	37	25	16	45	28	5.0	81			
4	365	174	31	20	20	54	28	2.4	60			
5	348	168	26	16	23	62	37	2.4	64			
6	297	144	23	18	23	66	20	2.1	66			
7	280	133	37	16	20	92	27	4.0	141			
8	246	127	37	13	26	92	19	2.1	103			
9	212	127	34	16	18	105	25	4.0	108			
10	183	120	31	16	18	96	30	2.8	103			
11	156	96	28	15	20	103	12	1.4	90			
12	136	83	28	18	23	85	11	1.7	90			
13	136	79	28	25	23	81	10	1.4	106			
14	105	88	28	25	25	85	10	1.8	331			
15	110	75	25	25	47	77	11	3.1	399			
16	83	75	28	16	37	77	16	1.8	314			
17	88	83	25	23	30	73	10	2.4	280			
18	83	62	23	16	42	62	8.5	1.8	280			
19	79	62	25	23	35	71	10	1.6	416			
20	92	66	25	18	15	58	9.2	3.7	453			
21	79	66	37	18	22	62	7.8	1.3	382			
22	75	66	28	25	35	58	10	4.0	351			
23	82	51	28	28	35	54	6.4	2.1	351			
24	92	47	25	20	27	51	5.0	7.1	314			
25	100	43	25	20	30	45	5.0	3.4	314			
26	152	43	23	20	38	42	5.0	4.7	297			
27	183	37	20	20	35	42	3.7	2.1	297			
28	183	37	23	18	30	38	4.7	4.7	280			
29	196	34	31	23	38	4.7	6.4	246				
30	212	37	23	23	38	5.7	6.4	263				
31	209		28	18	35		11					

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	450	75	188	0.119	0.14
November	199	34	93.2	.059	.07
December	37	20	26.2	.018	.02
January	28	13	20	.014	.02
February	47	16	27.5	.017	.02
March	105	35	64.4	.041	.05
April	37	3.7	14.8	.009	.01
May	11	1.3	3.54	.0022	.003
June	433	52	222	.141	.16
July					
August					
September					
The year					

## Suwannee River at White Springs, Fla.

Location.— Water-stage recorder in sec. 7, T. 2 S., R. 16 E., at highway bridge on U. S. Highway 41, 1 mile southeast of White Springs. Zero of gage is 48.54 feet above mean sea level.

Drainage area.— About 1,990 square miles (watershed in Okefenokee Swamp indeterminate).

Records available.— May 1906 to December 1908; February 1927 to September 1934.

Extremes.— Maximum discharge during year, 2,220 second-feet Aug. 13 (gage height, 10.10 feet); minimum, 5.0 second-feet May 14 (gage height, 1.36 feet).  
1906-8, 1927-34: Maximum discharge, 20,800 second-feet Sept. 30, Oct. 1, 1928 (gage height, 33.9 feet, old gage); minimum, 4.8 second-feet Nov. 15, 1931; minimum, gage height, 1.72 feet May 7-17, 1931, old gage.

Remarks.— Records good except those for Oct. 17 to Dec. 7, Jan. 21-23, Feb. 18 to Mar. 5, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	502	242	70	43	38	55	55	32	46	338	735	286
2	468	236	67	42	42	60	52	26	104	348	710	242
3	424	230	65	41	40	68	51	22	100	402	635	209
4	402	223	62	41	38	92	48	18	100	457	538	181
5	370	219	60	40	38	141	46	17	84	550	480	150
6	338	206	58	39	40	104	44	14	90	610	446	139
7	317	198	56	38	38	102	41	13	180	562	424	137
8	286	190	54	38	37	110	39	12	164	491	1,020	130
9	266	187	52	43	37	106	42	11	133	435	1,560	116
10	244	183	52	42	35	102	41	11	122	380	1,460	108
11	225	171	52	40	38	108	38	10	113	328	1,500	101
12	202	164	52	39	43	102	35	9.5	106	296	1,850	99
13	185	152	52	39	48	100	29	8.5	120	296	2,220	78
14	166	137	52	39	46	96	27	8.5	586	276	2,070	77
15	152	132	52	38	44	91	26	9.0	1,740	468	1,810	92
16	141	126	51	37	50	86	28	9.0	1,740	574	1,500	106
17	137	120	51	37	52	83	31	12	1,560	660	1,230	110
18	139	116	51	37	49	80	32	17	1,260	785	990	113
19	143	112	50	36	46	77	38	16	1,100	685	835	105
20	156	107	50	39	45	76	35	14	1,040	596	735	92
21	145	102	49	39	46	73	29	12	856	538	735	84
22	147	98	48	40	46	70	26	10	735	710	656	82
23	152	94	48	40	46	70	23	12	635	864	610	79
24	154	90	47	39	43	68	22	15	562	864	550	78
25	156	86	47	41	43	66	21	21	502	912	468	79
26	166	83	47	41	46	62	20	23	468	1,390	413	80
27	187	80	46	41	48	62	18	20	435	1,330	359	79
28	213	77	46	39	46	65	17	21	391	1,100	348	77
29	234	75	46	38	62	62	19	32	380	638	435	74
30	252	72	45	36	58	58	29	32	348	635	380	70
31	248	44	44	35	56	56	26	26		760	338	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	502			137			236			0.119	0.14	
November	242			72			144			.072	.08	
December	70			43			52.3			.026	.03	
January	43			35			39.3			.022	.02	
February	52			36			43.2			.022	.02	
March	141			55			82.3			.041	.05	
April	55			17			35.4			.017	.02	
May	32			8.5			16.6			.006	.01	
June	1,740			46			527			.265	.30	
July	1,390			276			645			.324	.37	
August	2,220			338			905			.455	.52	
September	286			70			115			.056	.06	
The year.	2,220			8.5			238			.120	1.62	



## Suwannee River at Ellaville, Fla.

Location.- Water-stage recorder in sec. 24, T. 1 S., R. 11 E., at old highway bridge at Ellaville, 200 feet above Seaboard Air Line Railway bridge and 200 feet below mouth of Withlacoochee River. Zero of gage is 27.70 feet above mean sea level.

Drainage area.- 6,580 square miles.

Records available.- January 1927 to September 1934.

Extremes.- Maximum discharge during year (estimated), 6,200 second-feet June 16 (gage height, 6.6 feet); minimum, 1,270 second-feet May 17 (gage height, 2.31 feet).  
1927-34: Maximum discharge, 73,000 second-feet Aug. 20, 1928 (gage height, 37.1 feet); minimum discharge, 1,050 second-feet Dec. 25-30, 1931, and Jan. 2-7, 1932: minimum gage height, 2.11 feet Dec. 28, 1931, and Jan. 5, 6, 1932.

Remarks.- Records good. Gage height estimated Jan. 31 to Feb. 14. Discharge estimated June 13 to Aug. 10. Estimated periods are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,040	2,020	1,660	1,450	1,350	1,460	2,560	1,480	3,520	3,370	3,200	2,740
2	2,980	2,020	1,660	1,450	1,380	1,460	2,440	1,480	3,760	3,300	3,100	2,680
3	2,860	2,020	1,660	1,440	1,370	1,480	2,380	1,480	3,880	3,200	3,000	2,620
4	2,800	2,020	1,660	1,420	1,340	1,540	2,320	1,460	4,000	3,200	3,000	2,560
5	2,740	1,960	1,660	1,420	1,350	1,600	2,320	1,440	4,120	3,200	2,900	2,500
6	2,680	1,960	1,660	1,420	1,370	1,660	2,260	1,420	4,240	3,200	2,800	2,380
7	2,620	1,980	1,660	1,420	1,350	1,720	2,260	1,400	4,480	3,200	2,800	2,260
8	2,560	1,900	1,600	1,410	1,330	1,780	2,200	1,380	4,700	3,200	2,800	2,200
9	2,500	1,800	1,600	1,400	1,330	1,840	2,200	1,370	4,920	3,200	2,800	2,140
10	2,440	1,840	1,600	1,390	1,280	1,960	2,140	1,340	5,140	3,200	2,900	2,080
11	2,380	1,840	1,600	1,390	1,330	2,080	2,080	1,330	5,360	3,100	3,040	2,020
12	2,320	1,840	1,660	1,400	1,370	2,200	2,020	1,300	5,470	3,100	3,160	1,960
13	2,320	1,780	1,600	1,390	1,380	2,440	1,960	1,290	5,600	3,100	3,520	1,920
14	2,260	1,780	1,600	1,370	1,360	2,680	1,960	1,290	5,800	3,000	3,680	1,900
15	2,200	1,780	1,600	1,370	1,370	2,860	1,900	1,290	6,000	3,070	4,120	1,900
16	2,200	1,780	1,600	1,360	1,370	2,920	1,840	1,290	6,200	3,270	4,480	1,840
17	2,200	1,720	1,600	1,360	1,350	2,980	1,840	1,300	6,000	3,470	4,480	1,840
18	2,200	1,780	1,600	1,360	1,340	3,040	1,840	1,280	5,800	3,670	4,240	1,840
19	2,140	1,780	1,600	1,360	1,350	3,100	1,780	1,280	5,800	3,770	4,120	1,840
20	2,140	1,780	1,540	1,360	1,340	3,160	1,770	1,410	5,600	3,670	3,880	1,840
21	2,080	1,780	1,540	1,370	1,340	3,160	1,720	1,660	5,400	3,470	3,760	1,780
22	2,080	1,780	1,540	1,380	1,350	3,260	1,660	1,900	5,200	3,270	3,640	1,780
23	2,080	1,780	1,540	1,380	1,350	3,160	1,600	2,140	4,800	3,470	3,520	1,720
24	2,080	1,720	1,480	1,370	1,340	3,040	1,600	2,260	4,500	3,570	3,280	1,720
25	2,020	1,720	1,480	1,360	1,360	2,980	1,600	2,620	4,200	3,570	3,160	1,660
26	2,020	1,720	1,480	1,360	1,400	2,860	1,600	2,980	4,000	3,570	2,980	1,660
27	2,020	1,720	1,480	1,350	1,390	2,800	1,600	3,280	3,600	3,570	2,860	1,660
28	2,020	1,660	1,470	1,360	1,420	2,800	1,540	3,280	3,400	3,570	2,740	1,660
29	2,020	1,660	1,460	1,340		2,740	1,540	3,280	3,300	3,400	2,680	1,600
30	2,020	1,660	1,460	1,320		2,680	1,540	3,280	3,300	3,300	2,680	1,600
31	2,020		1,450	1,290		2,620		3,400		3,300	2,680	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	3,040			2,020			2,320			0.339	0.39	
November	2,020			1,660			1,820			.286	.30	
December	1,660			1,450			1,570			.230	.27	
January	1,450			1,290			1,380			.202	.23	
February	1,420			1,280			1,360			.199	.21	
March	3,280			1,460			2,450			.358	.41	
April	2,560			1,540			1,930			.282	.31	
May	3,400			1,280			1,850			.270	.31	
June	6,200			3,300			4,740			.693	.77	
July	3,700			3,000			3,310			.484	.56	
August	4,480			2,680			3,500			.482	.56	
September	2,740			1,600			2,000			.292	.33	
The year	6,200			1,280			2,340			.342	4.65	

## Suwannee River at Luraville, Fla.

Location.- Staff gage in sec. 30, T. 4 S., R. 12 E., at highway bridge 1 mile south of Luraville, Suwannee County, and 3 miles above Grants Ferry Shoals. A large spring discharges into the river 500 feet above bridge on left bank. Zero of gage is 16.49 feet above mean sea level.

Drainage area.- 6,900 square miles.

Records available.- February 1927 to September 1934.

Extremes.- Maximum discharge recorded during year, 6,560 second-feet June 17 (gage height, 6.67 feet); minimum discharge recorded, 1,490 second-feet Feb. 13; minimum gage height recorded, 1.75 feet May 19, 20.  
1927-34: Maximum discharge recorded, about 66,000 second-feet Aug. 24, 1928 (gage height, 33.7 feet); minimum discharge recorded, 1,490 second-feet Dec. 17-31, 1931, Jan. 3-9, May 17, 18, 1932, Feb. 13, 1934; minimum gage height recorded, 1.50 feet Dec. 27-30, 1931, Jan. 5-8, 1932.

Remarks.- Records good.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,850	2,280	2,030	1,790	1,560	1,630	2,910	1,870	3,650	4,150	3,950	3,270
2	3,650	2,280	2,030	1,790	1,560	1,710	2,820	1,870	3,650	3,950	3,850	3,270
3	3,550	2,280	2,030	1,710	1,560	1,710	2,730	1,870	3,850	3,850	3,750	3,270
4	3,450	2,280	2,030	1,710	1,560	1,710	2,640	1,870	4,050	3,270	3,650	3,180
5	3,270	2,280	2,030	1,710	1,560	1,790	2,550	1,870	4,150	3,270	3,550	3,180
6	3,270	2,280	2,030	1,710	1,560	1,870	2,550	1,870	4,250	3,850	3,450	3,090
7	3,090	2,280	2,030	1,710	1,560	1,870	2,550	1,790	4,350	3,850	3,450	3,000
8	3,000	2,190	2,030	1,710	1,560	1,950	2,550	1,790	4,650	3,850	3,270	2,820
9	2,910	2,190	2,030	1,710	1,560	1,950	2,550	1,790	4,650	3,850	3,270	2,730
10	2,820	2,190	2,030	1,710	1,560	2,030	2,460	1,790	4,950	3,750	3,650	2,640
11	2,730	2,110	2,030	1,710	1,560	2,110	2,370	1,710	5,050	3,750	3,750	2,640
12	2,640	2,110	2,030	1,710	1,560	2,190	2,370	1,710	5,250	3,650	3,850	2,550
13	2,640	2,110	2,030	1,710	1,490	2,370	2,280	1,710	5,250	3,650	3,850	2,550
14	2,640	2,110	1,950	1,630	1,560	2,440	2,190	1,710	5,650	3,550	4,250	2,460
15	2,550	2,030	1,950	1,630	1,560	2,820	2,190	1,710	5,850	3,450	4,550	2,460
16	2,460	2,030	1,950	1,630	1,560	3,000	2,190	1,710	6,250	3,450	4,750	2,460
17	2,460	2,030	1,950	1,630	1,560	3,090	2,110	1,710	6,560	3,650	4,850	2,370
18	2,460	2,110	1,950	1,630	1,560	3,090	2,110	1,710	6,450	3,750	4,950	2,370
19	2,460	2,110	1,950	1,630	1,560	3,180	2,110	1,710	6,450	3,950	4,850	2,370
20	2,460	2,110	1,950	1,630	1,560	3,270	2,030	1,710	6,450	4,050	4,650	2,370
21	2,460	2,110	1,850	1,630	1,560	3,270	2,030	1,790	6,250	3,950	4,550	2,280
22	2,370	2,110	1,870	1,630	1,560	3,360	2,030	1,950	6,050	3,750	4,450	2,280
23	2,370	2,110	1,870	1,630	1,560	3,360	1,950	2,190	5,750	3,750	4,350	2,190
24	2,280	2,110	1,870	1,630	1,560	3,360	1,950	2,370	5,750	4,050	4,150	2,190
25	2,280	2,110	1,870	1,630	1,560	3,270	1,870	2,550	5,150	4,150	3,950	2,190
26	2,280	2,030	1,870	1,630	1,630	3,180	1,870	2,820	4,850	4,150	3,750	2,190
27	2,280	2,030	1,790	1,560	1,630	3,090	1,870	3,180	4,650	4,150	3,650	2,190
28	2,280	2,030	1,790	1,560	1,630	3,090	1,870	3,360	4,450	4,150	3,550	2,110
29	2,280	2,030	1,790	1,560		3,000	1,870	3,450	4,250	4,150	3,450	2,110
30	2,280	2,030	1,790	1,560		3,000	1,870	3,450	4,250	4,050	3,360	2,110
31	2,280		1,790	1,560		3,000		3,550		3,950	3,270	
Month	Maximum				Minimum			Mean		Per square mile	Run-off in inches	
October	3,650				2,280			2,700		0.391	0.45	
November	2,280				2,030			2,140		.30	.35	
December	2,030				1,790			1,940		.281	.32	
January	1,790				1,560			1,560		.241	.28	
February	1,630				1,490			1,560		.226	.24	
March	3,560				1,630			2,610		.378	.44	
April	2,910				1,870			2,250		.326	.36	
May	3,550				1,710			2,130		.309	.36	
June	6,560				3,650			5,090		.778	.82	
July	4,150				3,270			3,830		.555	.64	
August	4,950				3,270			3,960		.574	.66	
September	3,270				2,110			2,560		.371	.41	
The year	6,560				1,490			2,710		.393	5.33	

## Suwannee River at Branford, Fla.

Location.- Wire-weight gage in sec. 17 or 20, T. 6 S., R. 14 E., on highway bridge in Branford.

Drainage area.- 7,090 square miles.

Records available.- July 1931 to September 1934.

Extremes.- Maximum discharge recorded during year, 8,350 second-feet June 20 (gage height, 12.76 feet); minimum discharge, 2,000 second-feet May 11-16, 19; minimum gage height recorded, 3.12 feet May 19.

1931-34: Maximum discharge recorded, 24,100 second-feet Mar. 1, 1933 (gage height, 21.96 feet); minimum discharge recorded, 1,760 second-feet on numerous days in December 1931 and January 1932; minimum gage height recorded, 2.55 feet May 16, 1932.

Remarks.- Records good except those for period June 15 to July 15, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,520	3,080	2,600	2,300	2,120	2,180	3,260	2,180	3,690	5,050	4,450	3,890
2	4,380	3,080	2,600	2,300	2,180	2,180	3,200	2,120	3,890	4,820	4,380	3,890
3	4,300	3,020	2,600	2,300	2,120	2,240	3,140	2,120	3,960	4,600	4,380	3,820
4	4,160	3,020	2,600	2,300	2,060	2,360	3,140	2,120	4,160	4,680	4,160	3,820
5	4,030	3,020	2,600	2,300	2,060	2,420	3,020	2,120	4,300	4,600	4,160	3,820
6	4,030	3,020	2,600	2,240	2,060	2,360	3,020	2,120	4,600	4,600	4,100	3,690
7	3,890	2,960	2,600	2,240	2,060	2,420	2,900	2,120	4,600	4,520	3,890	3,690
8	3,890	2,960	2,600	2,300	2,060	2,420	2,900	2,120	4,600	4,520	3,890	3,620
9	3,820	2,900	2,540	2,300	2,060	2,480	2,750	2,060	4,750	4,450	4,100	3,360
10	3,760	2,900	2,540	2,240	2,060	2,540	2,750	2,060	4,950	4,450	4,300	3,260
11	3,620	2,840	2,480	2,240	2,060	2,600	2,720	2,000	5,050	4,390	4,520	3,260
12	3,560	2,840	2,480	2,240	2,060	2,720	2,660	2,000	5,050	4,380	4,600	3,320
13	3,500	2,840	2,480	2,240	2,120	2,840	2,600	2,000	5,200	4,300	4,750	3,260
14	3,500	2,840	2,480	2,240	2,060	2,960	2,540	2,000	5,650	4,300	4,900	3,260
15	3,380	2,840	2,480	2,240	2,060	3,080	2,540	2,000	5,800	4,160	5,050	3,260
16	3,380	2,840	2,480	2,180	2,060	3,320	2,540	2,000	6,280	4,160	5,120	3,200
17	3,380	2,720	2,480	2,180	2,120	3,380	2,540	2,120	6,600	4,230	5,280	3,140
18	3,380	2,720	2,480	2,180	2,060	3,500	2,480	2,060	7,280	4,300	5,420	3,140
19	3,320	2,760	2,480	2,180	2,060	3,500	2,480	2,000	7,280	4,450	5,420	3,080
20	3,260	2,780	2,480	2,240	2,120	3,620	2,420	2,060	8,350	4,520	5,560	3,080
21	3,260	2,780	2,420	2,180	2,060	3,690	2,360	2,120	7,810	4,450	5,280	3,020
22	3,260	2,780	2,420	2,180	2,060	3,690	2,300	2,180	7,450	4,380	5,120	3,020
23	3,250	2,840	2,420	2,180	2,060	3,820	2,300	2,360	7,200	4,380	5,050	2,960
24	3,200	2,720	2,560	2,180	2,060	3,690	2,240	2,480	6,680	4,450	4,900	2,900
25	3,140	2,720	2,560	2,180	2,120	3,690	2,240	2,720	6,440	4,600	4,750	2,900
26	3,140	2,660	2,300	2,180	2,240	3,690	2,240	2,900	6,040	4,600	4,600	2,900
27	3,080	2,660	2,300	2,120	2,180	3,560	2,240	3,140	5,650	4,600	4,520	2,840
28	3,080	2,600	2,360	2,120	2,180	3,500	2,240	3,380	5,500	4,600	4,300	2,780
29	3,080	2,600	2,300	2,060		3,440	2,240	3,500	5,350	4,600	4,160	2,780
30	3,080	2,600	2,300	2,060		3,380	2,180	3,690	5,120	4,600	4,100	2,720
31	3,080		2,300	2,060		3,380		3,690		4,520	3,960	
Month	Maximum					Minimum			Mean		Per square mile	Run-off in inches
October	4,520					3,080			3,540		0.499	0.58
November	3,080					2,600			2,830		.399	.45
December	2,600					2,300			2,470		.348	.40
January	2,300					2,060			2,210		.312	.36
February	2,240					2,060			2,090		.295	.31
March	3,820					2,180			3,050		.430	.50
April	3,260					2,180			2,610		.368	.41
May	3,690					2,000			2,370		.334	.39
June	8,350					3,690			5,640		.795	.89
July	5,050					4,160			4,490		.633	.73
August	5,420					3,890			4,610		.650	.75
September	3,890					2,720			3,260		.460	.51
The year	8,350					2,000			3,270		.461	6.28

## Suwannee River near Bell, Fla.

Location.- Water-stage recorder in sec. 17, T. 8 S., R. 14 E., at Rock Bluff Ferry, 4½ miles northwest of Bell and 10 miles below mouth of Santa Fe River. Zero of gage is 2.75 feet above mean sea level.

Drainage area.- 9,260 square miles.

Records available.- June 1932 to September 1934.

Extremes.- Maximum discharge during year, 14,800 second-feet June 21 (gage height, 11.30 feet); minimum discharge, 3,460 second-feet May 20, 21; minimum gage height, 1.79 feet May 20.  
1932-34: Maximum discharge, 24,500 second-feet Mar. 2, 1933 (gage height, 15.36 feet); minimum discharge, 3,320 second-feet June 1-3, 10-12, 1932; minimum gage height, 1.55 feet June 1, 2, 11, 1932.  
Flood of September 1928 reached a stage of about 25.9 feet (discharge, about 75,000 second-feet). This is probably the highest flood in the past 50 years or more.

Remarks.- Records excellent.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,120	5,050	4,400	4,060	3,900	3,600	4,670	3,600	5,150	9,760	7,360	6,450
2	7,000	5,150	4,400	4,060	3,900	3,680	4,580	3,600	5,250	9,370	7,240	6,450
3	6,780	5,150	4,400	3,980	3,750	3,820	4,580	3,680	5,350	9,110	7,120	6,450
4	6,560	5,050	4,400	3,900	3,750	3,980	4,490	3,680	5,670	8,850	7,000	6,450
5	6,450	4,950	4,400	3,980	3,750	3,980	4,400	3,680	5,680	8,720	6,890	6,450
6	6,450	4,950	4,400	3,980	3,750	3,820	4,400	3,600	5,790	8,460	6,780	6,340
7	6,450	4,950	4,490	4,060	3,750	3,820	4,310	3,600	6,010	8,330	6,670	6,230
8	6,340	4,850	4,310	4,060	3,750	3,820	4,220	3,600	6,120	8,200	6,560	6,230
9	6,230	4,760	4,310	3,980	3,680	3,820	4,310	3,600	6,230	8,080	6,560	6,120
10	6,120	4,760	4,220	3,900	3,600	3,900	4,220	3,530	6,340	7,960	6,670	6,010
11	5,900	4,670	4,220	3,820	3,600	3,900	4,220	3,530	6,450	7,840	6,890	5,900
12	5,790	4,670	4,310	3,900	3,820	3,900	4,220	3,530	6,560	7,640	7,120	5,790
13	5,790	4,760	4,310	3,980	3,820	4,060	4,060	3,530	6,780	7,720	7,360	5,790
14	5,790	4,760	4,310	3,980	3,750	4,220	4,060	3,600	7,380	7,480	7,800	5,790
15	5,680	4,760	4,310	3,900	3,750	4,400	4,060	3,680	7,960	7,360	7,840	5,790
16	5,570	4,670	4,310	3,900	3,750	4,490	4,140	3,600	8,480	7,240	8,080	5,680
17	5,670	4,580	4,310	3,900	3,750	4,580	4,080	3,600	8,850	7,240	8,330	5,670
18	5,670	4,580	4,310	3,900	3,680	4,670	4,140	3,530	10,900	7,240	8,590	5,460
19	5,460	4,670	4,310	3,900	3,750	4,760	4,080	3,460	13,000	7,240	8,720	5,350
20	5,350	4,670	4,220	3,900	3,750	4,850	3,980	3,460	14,300	7,360	8,720	5,350
21	5,350	4,670	4,220	3,900	3,680	4,760	3,820	3,530	14,800	7,240	8,590	5,350
22	5,350	4,670	4,060	3,820	3,680	4,850	3,750	3,600	14,600	7,240	8,460	5,350
23	5,350	4,670	4,060	3,820	3,680	4,950	3,750	3,750	14,000	7,240	8,330	5,250
24	5,250	4,670	4,060	3,750	3,600	4,950	3,750	3,820	13,500	7,240	8,080	5,130
25	5,150	4,400	4,060	3,820	3,680	4,850	3,750	3,980	12,900	7,360	7,840	5,150
26	5,050	4,400	4,060	3,820	3,900	4,850	3,750	4,220	12,100	7,360	7,600	5,150
27	5,050	4,400	4,060	3,820	3,750	4,850	3,750	4,310	11,500	7,360	7,360	5,050
28	5,150	4,400	3,980	3,820	3,530	4,850	3,750	4,580	10,900	7,360	7,120	4,950
29	5,150	4,400	3,980	3,820		4,760	3,750	4,850	10,500	7,360	7,000	4,950
30	5,150	4,400	3,900	3,680		4,670	3,750	5,150	10,200	7,480	6,780	4,850
31	5,050		3,980	3,680		4,670		5,150		7,360	6,670	
Month	Maximum					Minimum		Mean		Per square mile	Run-off in inches	
October	7,120					5,050		5,770		0.533	0.72	
November	5,150					4,400		4,720		.510	.57	
December	4,490					3,900		4,230		.457	.53	
January	4,060					3,680		3,900		.421	.49	
February	3,900					3,530		3,730		.473	.42	
March	4,950					3,600		4,360		.471	.54	
April	4,670					3,750		4,090		.442	.49	
May	5,150					3,460		3,830		.414	.48	
June	14,800					5,150		9,150		.973	1.10	
July	9,760					7,240		7,610		.843	.97	
August	8,720					6,580		7,480		.878	.93	
September	6,450					4,850		5,700		.616	.69	
The year	14,800					3,460		5,400		.583	7.93	

## Alapaha River at Statenville, Ga.

Location.- Chain gage at highway bridge on Statenville-Valdosta road a quarter of a mile west of Statenville, Echols County.

Drainage area.- 1,370 square miles.

Records available.- January to June 1921, December 1931 to September 1934.

Extremes.- Maximum discharge recorded during year, 2,420 second-feet June 4, 5, and 7 (gage height, 10.80 feet); minimum, 29 second-feet Jan. 1 (gage height, 1.19 feet).  
1921, 1931-34: Maximum discharge recorded, 6,140 second-feet Feb. 22, 1933 (gage height, 21.82 feet); minimum, 17 second-feet Dec. 21, 28-31, 1931 (gage height, 0.99 foot).  
Maximum stage known, 28.6 feet, present datum, in 1928 (discharge, estimated, 14,900 second-feet).

Remarks.- Records good except those estimated, May 27 to June 3, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	149	56	100	29	50	116	605	204	2,240	327	194	555
2	154	55	116	39	69	128	780	194	2,300	327	164	390
3	128	52	110	45	61	174	755	194	2,390	306	149	327
4	110	54	110	39	57	174	755	184	2,420	306	116	254
5	110	54	100	35	52	224	755	174	2,420	306	134	234
6	100	52	100	33	56	224	755	156	2,390	327	142	194
7	100	50	105	33	56	264	705	149	2,420	327	134	174
8	90	48	105	35	56	390	655	142	2,300	285	142	134
9	90	46	105	35	54	505	580	128	2,240	285	134	156
10	85	46	122	35	67	690	530	122	2,120	285	122	142
11	90	46	142	35	66	890	413	116	1,970	306	128	128
12	80	46	134	35	70	1,080	369	105	1,820	369	264	116
13	75	46	128	35	75	1,280	390	105	1,820	327	306	90
14	75	50	149	35	64	1,370	369	105	1,760	306	459	100
15	70	48	142	33	64	1,430	327	100	1,580	306	530	95
16	70	46	134	31	64	1,400	306	105	1,430	306	505	105
17	128	105	105	31	70	1,430	285	128	1,280	436	462	142
18	105	116	95	31	75	1,580	254	142	1,400	436	413	142
19	90	116	75	31	80	1,700	244	134	1,510	436	548	134
20	85	122	61	42	85	1,880	224	128	1,190	390	436	116
21	75	110	53	40	90	1,910	214	390	1,060	327	655	105
22	70	116	50	39	105	1,820	194	780	905	390	730	100
23	69	116	48	41	105	1,610	184	1,060	780	413	755	95
24	68	105	46	39	110	1,400	285	1,370	730	327	680	80
25	67	105	41	39	105	1,280	413	1,670	755	254	605	80
26	63	116	38	34	122	1,220	390	1,820	730	306	436	70
27	62	116	38	33	128	1,130	327	1,970	630	285	369	80
28	60	110	37	35	116	1,100	285	2,240	530	214	327	80
29	59	110	34	38		1,060	244	2,270	459	214	306	80
30	59	100	31	39		955	224	2,240	369	204	285	69
31	57		30	37		880		2,240		194	459	
Month	Maximum		Minimum		Mean		Per square mile		Run-off in inches			
October	149		57		85.9		0.063		0.07			
November	122		46		76.5		.057		.06			
December	149		30		86.6		.063		.07			
January	45		29		35.8		.026		.03			
February	128		50		77.6		.057		.06			
March	1,910		116		1,010		.737		.85			
April	905		184		454		.317		.35			
May	2,270		100		673		.491		.57			
June	2,420		369		1,520		1.11		1.24			
July	436		194		317		.231		.27			
August	755		116		352		.257		.30			
September	555		69		152		.111		.12			
The year.	2,420		29		403		.294		3.99			

## Withlacoochee River near Pinetta, Fla.

Location.- Chain gage in sec. 6, T. 2 N., R. 11 E., on highway bridge a quarter of a mile west of Bellville and 5 miles east of Pinetta.

Drainage area.- 2,220 square miles.

Records available.- December 1931 to September 1934.

Extremes.- Maximum discharge recorded during year, 3,270 second-feet June 12 (gage height, 11.92 feet); minimum recorded, 108 second-feet Jan. 31 (gage height, 6.62 feet).

1931-34: Maximum discharge recorded, 9,820 second-feet Feb. 24, 1933 (gage height, 22.79 feet); minimum discharge recorded, 103 second-feet Dec. 16, 1931; minimum gage height recorded, 6.62 feet Jan. 31, 1934.

The flood of August 1928, which is the greatest known, reached a stage of 36.75 feet, discharge estimated at 35,000 second-feet.

Remarks.- Records good.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	202	131	122	118	138	183	527	187	1,520	390	330	580
2	202	135	122	112	124	167	477	157	1,590	311	350	502
3	188	148	122	112	128	168	454	155	1,590	311	311	502
4	188	146	124	112	128	188	432	148	1,660	350	259	502
5	175	153	122	116	126	243	411	141	1,660	370	229	454
6	175	148	120	116	122	330	411	135	1,940	370	202	390
7	175	133	131	116	117	350	411	133	2,220	350	229	311
8	178	128	128	117	117	432	390	133	2,360	454	215	243
9	165	128	128	117	117	477	390	133	2,710	598	188	202
10	165	128	128	116	111	635	370	131	2,990	598	188	135
11	165	118	124	112	114	725	330	128	3,200	477	169	133
12	160	118	122	116	131	855	293	122	3,270	411	229	167
13	155	126	122	117	139	960	275	124	2,990	370	554	160
14	160	128	120	112	153	1,100	243	153	2,290	330	725	157
15	155	131	120	112	146	1,170	229	148	1,730	311	1,310	153
16	148	122	120	110	139	1,170	229	139	1,240	454	1,590	153
17	165	118	120	112	131	1,100	229	139	1,240	580	1,450	153
18	160	126	120	110	128	1,100	215	135	1,100	890	1,450	155
19	170	130	117	112	135	1,030	202	202	1,100	755	1,380	157
20	165	126	131	122	131	1,030	188	527	788	527	1,240	157
21	144	126	135	118	128	960	183	695	635	390	1,100	155
22	144	131	135	120	131	890	172	1,030	590	502	855	146
23	148	131	135	124	131	755	172	1,100	554	960	725	131
24	144	126	135	122	135	695	172	1,240	477	820	635	128
25	144	126	135	120	137	695	170	1,450	477	580	527	128
26	139	130	133	120	157	635	170	1,870	477	432	390	128
27	135	116	135	117	167	665	172	1,660	390	411	350	148
28	135	118	133	120	188	665	175	1,730	350	432	311	141
29	133	122	130	118		665	183	1,730	527	350	311	135
30	133	122	133	117		598	172	1,590	502	330	370	135
31	131		131	108		554		1,520		330	527	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	202			131			160			0.072	0.08	
November	153			116			129			.058	.06	
December	135			117			127			.057	.07	
January	124			108			116			.052	.06	
February	168			111			133			.067	.06	
March	1,170			167			694			.303	.36	
April	527			170			282			.127	.14	
May	1,870			122			608			.274	.32	
June	3,270			350			1,470			.662	.74	
July	960			311			476			.214	.25	
August	1,590			188			604			.272	.31	
September	580			128			228			.103	.11	
The year.	3,270			108			419			.187	2.56	

## Santa Fe River at Worthington, Fla.

Location.- Staff gage in sec. 33, T. 6 S., R. 19 E., at highway bridge on State Highway 49 a quarter of a mile south of Worthington and a quarter of a mile below mouth of New River. Zero of gage is 42.91 feet above mean sea level.

Records available.- November 1931 to September 1934.

Extremes.- Maximum discharge during year, 17,500 second-feet June 17 (gage height, 24.83 feet, from flood marks); minimum recorded, 5.5 second-feet Aug. 15 (gage height, 7.50 feet).

1932-34: Maximum discharge, that of June 17, 1934; minimum, 1.3 second-feet May 17, June 1, 1932 (gage height, 7.15 feet).

Remarks.- Records good.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	45	22	17	17	95	45	37	1,190	925	507	333
2	75	41	21	18	21	90	39	66	1,310	853	466	357
3	62	42	20	18	26	85	34	95	1,190	731	441	381
4	62	41	20	18	25	95	29	115	1,050	733	417	381
5	66	53	19	18	22	130	23	135	975	930	453	405
6	57	66	18	18	18	135	20	125	900	833	441	417
7	55	62	29	18	17	145	18	110	771	831	429	381
8	52	57	25	17	17	145	16	75	661	925	661	321
9	51	48	27	19	16	115	14	53	643	627	1,270	309
10	48	42	27	18	14	85	13	42	453	530	1,350	309
11	45	38	26	18	19	75	11	33	333	531	1,310	309
12	41	35	25	18	43	66	9.0	28	275	436	1,270	309
13	38	33	23	18	66	62	8.3	25	333	417	1,230	286
14	34	29	22	18	75	54	6.9	24	2,480	339	1,390	253
15	31	26	20	16	66	51	5.5	44	10,900	345	1,490	242
16	30	24	20	16	57	45	9.0	51	16,100	345	2,170	253
17	34	24	20	16	54	42	18	53	16,900	321	1,990	242
18	66	23	19	14	43	38	16	110	13,200	309	1,540	231
19	105	22	18	14	35	35	55	176	9,000	297	1,100	242
20	135	22	18	14	34	34	85	242	8,780	236	1,020	220
21	145	21	18	18	32	31	115	345	4,760	275	900	187
22	135	25	18	19	30	29	90	369	3,540	234	715	165
23	135	26	18	19	29	27	75	333	2,480	359	643	145
24	125	30	18	18	27	25	55	264	1,720	441	550	130
25	105	28	17	17	25	23	42	220	1,920	565	479	115
26	85	27	16	18	35	22	34	253	1,990	580	429	105
27	75	26	16	16	52	20	29	357	1,720	580	357	90
28	66	25	15	16	80	54	24	595	1,390	595	309	85
29	62	24	14	16	66	66	22	661	1,310	565	286	75
30	57	23	14	14	57	57	28	771	1,100	535	309	70
31	51		16	13	49	49		975		507	321	
Month						Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October						145	30	71.2				
November						66	21	34.3				
December						29	14	20.0				
January						19	13	16.9				
February						60	14	35.6				
March						145	20	65.3				
April						115	5.5	33.0				
May						975	24	219				
June						16,900	275	3,650				
July						925	264	547				
August						2,170	286	547				
September						417	70	265				
The year						16,900	5.5	480				

## Santa Fe River near High Springs, Fla.

Location.— Water-stage recorder in sec. 29, T. 7 S., R. 17 E., at highway bridge on State Highway 5A 150 feet upstream from Atlantic Coast Line Railroad bridge and 2 miles northwest of High Springs. Zero of gage is 25.78 feet above mean sea level.

Records available.— January 1931 to September 1934.

Extremes.— Maximum discharge during year, 11,800 second-feet June 18 (gage height, 14.90 feet); minimum, 150 second-feet Apr. 14 (gage height, 0.78 foot).  
1931-34: Maximum discharge, that of June 18, 1934; minimum, 78 second-feet June 9, 10, 1932 (gage height, 0.48 foot).

Remarks.— Records good except those estimated for June 2-8, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	700	402	272	218	197	200	182	180	498	2,580	1,140	1,060		
2	678	394	269	218	180	206	182	180	560	2,400	1,130	1,060		
3	678	386	272	212	180	212	180	182	632	2,260	1,090	1,060		
4	655	382	266	212	180	227	180	185	678	2,160	1,090	1,060		
5	632	378	260	212	180	218	178	194	700	2,040	1,040	1,060		
6	610	370	266	212	180	218	172	209	722	2,040	1,020	1,060		
7	588	370	263	209	178	224	170	209	722	1,980	1,020	1,060		
8	568	362	257	206	178	236	168	203	700	1,920	1,020	1,040		
9	560	354	254	203	172	242	170	197	678	1,860	1,090	1,020		
10	538	346	251	200	172	248	166	197	632	1,800	1,240	990		
11	529	346	257	200	182	233	165	194	588	1,690	1,390	990		
12	520	342	251	203	185	221	162	191	536	1,640	1,490	990		
13	516	346	251	200	188	230	155	188	506	1,540	1,590	965		
14	498	334	248	197	182	236	153	182	700	1,440	1,740	940		
15	484	318	245	191	188	227	158	185	1,390	1,340	1,920	915		
16	475	303	245	188	200	221	158	180	2,880	1,340	2,040	890		
17	470	303	242	191	191	215	155	182	7,620	1,290	2,160	890		
18	457	310	239	188	194	215	165	178	11,500	1,240	2,220	865		
19	452	310	239	188	197	215	160	180	11,500	1,160	2,160	865		
20	462	300	242	194	182	200	170	194	10,100	1,140	2,040	840		
21	475	292	236	188	182	197	170	215	6,340	1,120	1,920	815		
22	480	303	230	185	186	197	178	236	6,830	1,120	1,740	790		
23	480	300	230	185	178	194	182	254	5,590	1,120	1,640	768		
24	475	286	230	182	175	191	185	263	4,790	1,090	1,540	745		
25	462	286	227	182	188	188	182	260	4,310	1,120	1,440	722		
26	448	289	230	182	191	185	182	248	3,990	1,160	1,340	722		
27	444	275	221	185	172	191	182	251	3,590	1,160	1,260	700		
28	426	272	218	188	182	182	175	318	3,280	1,140	1,190	678		
29	418	269	215	182	182	172	370	3,000	3,000	1,160	1,160	678		
30	410	272	215	172	185	172	406	2,760	2,760	1,160	1,120	655		
31	410		215	175		186		457		1,140	1,090			
Month					Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October					700		410		517					
November					402		269		327					
December					272		215		244					
January					218		172		185					
February					200		172		184					
March					248		162		210					
April					182		153		171					
May					457		175		228					
June					11,500		498		3,340					
July					2,580		1,090		1,530					
August					2,220		1,020		1,450					
September					1,060		655		896					
The year					11,500		163		775					



## Santa Fe River near Fort White, Fla.

Location.- Water-stage recorder in sec. 22, T. 7 S., R. 16 E., 2 miles upstream from county highway bridge on road between Willeford and Fort White and 4 miles south of Fort White. Zero of gage is 21.28 feet above mean sea level.  
Records available.- October 1927 to January 1930, June 1932 to September 1934.  
Extremes.- Maximum discharge during year, 11,400 second-feet June 20 (gage height, 11.04 feet); minimum, 830 second-feet Apr. 14 (gage height, 0.73 foot).  
 1927-30, 1932-34: Maximum discharge, that of June 20, 1934; minimum, 670 second-feet June 4, 5, 1932 (gage height, 0.65 foot).  
Remarks.- Records good.

Discharge, in second-feet. 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,400	1,100	956	919	882	867	852	852	1,220	3,470	1,920	1,920
2	1,400	1,100	956	919	867	875	852	860	1,250	3,250	1,920	1,920
3	1,360	1,070	956	912	860	875	845	860	1,330	3,100	1,920	1,920
4	1,360	1,070	956	912	860	904	845	860	1,400	2,950	1,880	1,920
5	1,330	1,070	956	912	860	889	845	867	1,440	2,880	1,880	1,920
6	1,330	1,070	956	912	860	882	845	875	1,440	2,810	1,840	1,920
7	1,290	1,070	956	904	860	889	845	882	1,440	2,730	1,840	1,920
8	1,290	1,070	949	904	860	897	838	875	1,400	2,660	1,840	1,920
9	1,250	1,030	949	904	860	904	845	867	1,360	2,580	1,920	1,920
10	1,250	1,030	941	897	860	912	838	867	1,330	2,440	1,990	1,880
11	1,220	1,030	941	897	860	897	845	867	1,290	2,360	2,140	1,680
12	1,220	1,030	949	897	875	889	838	867	1,250	2,290	2,290	1,680
13	1,220	1,030	949	897	867	889	838	867	1,220	2,210	2,360	1,680
14	1,220	1,030	941	889	860	897	838	875	1,400	2,140	2,510	1,810
15	1,180	1,030	941	886	867	889	838	875	1,840	2,070	2,660	1,810
16	1,180	993	941	882	875	882	845	867	2,730	2,070	2,730	1,770
17	1,180	993	934	882	860	882	838	882	4,580	1,990	2,880	1,770
18	1,180	993	934	882	860	882	860	882	8,950	1,920	2,950	1,730
19	1,180	993	934	882	860	875	852	882	11,100	1,920	2,950	1,730
20	1,180	993	941	889	845	867	860	897	11,100	1,880	2,880	1,700
21	1,180	993	934	882	845	860	852	919	9,550	1,840	2,730	1,660
22	1,180	993	934	882	845	867	852	934	7,930	1,840	2,660	1,660
23	1,180	993	926	875	845	860	860	956	6,540	1,880	2,510	1,620
24	1,180	956	926	867	845	860	860	993	5,500	1,840	2,360	1,620
25	1,140	956	926	867	845	860	860	993	5,030	1,880	2,290	1,580
26	1,140	993	926	867	860	852	852	993	4,660	1,880	2,210	1,550
27	1,140	956	919	867	838	860	852	993	4,430	1,920	2,140	1,510
28	1,140	956	919	867	845	860	845	1,030	4,140	1,920	2,070	1,510
29	1,100	956	919	867		852	852	1,070	3,920	1,920	2,070	1,510
30	1,100	956	919	860		860	852	1,140	3,690	1,920	1,990	1,510
31	1,100		919	860		860		1,140		1,920	1,990	
Month					Maximum		Minimum		Mean		Per square mile	Run-off in inches
October					1,440		1,100		1,220			
November					1,100		956		1,020			
December					956		919		939			
January					919		860		888			
February					882		838		858			
March					912		852		877			
April					860		838		848			
May					1,140		852		922			
June					11,100		1,220		3,820			
July					3,470		1,840		2,270			
August					2,950		1,840		2,270			
September					1,920		1,510		1,760			
The year					11,100		838		1,470			

## Ichatucknee Springs near Hildreth, Fla.

Location.- In sec. 23, T. 6 S., R. 15 E., at bridge on State Highway 5A 1 mile east of Hildreth, and about 2 miles above junction with Santa Fe River.  
Records available.- Discharge measurements from January 1931 to September 1934. Single measurements only during 1917, 1929-30.  
Extremes.- 1931-34: Maximum discharge measured, 428 second-feet Mar. 14, 1931; minimum, 280 second-feet June 4, 1932.  
Remarks.- Discharge measurements made monthly at highway bridge about 4 miles below head of springs.

Discharge measurements, in second-feet, 1933-34

Nov. 18	342	Mar. 21	304	July 8	405
Dec. 11	348	Apr. 18	315	Aug. 7	410
Jan. 19	345	May 11	303	Sept. 10	372
Feb. 17	332	June 9	297		

## Ochlockonee River near Havana, Fla.

Location.- Wire gage in sec. 24, T. 2 N., R. 2 W., at bridge on State Highway 1 three-quarters of a mile above Georgia, Florida & Alabama Railway bridge and 5 miles southeast of Havana. Prior to Aug. 11, 1934, chain gage at same site and datum.

Drainage area.- 1,020 square miles.

Records available.- December 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 1,230 second-feet June 10 (gage height, 17.44 feet); minimum discharge recorded, 24 second-feet Nov. 14, 15, 17; minimum gage height recorded, 11.79 feet Sept. 30.  
1928-34: Maximum discharge recorded, 14,200 second-feet Mar. 19, 1929 (gage height, 30.3 feet); minimum discharge recorded, that of Nov. 14, 15, 17, 1933; minimum gage height recorded, that of Sept. 30, 1934.

Remarks.- Records good.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	29	28	40	71	263	300	98	377	193	300	202
2	63	29	28	42	79	245	281	227	549	169	503	227
3	64	29	29	45	84	227	263	357	1,090	146	687	202
4	64	28	29	43	88	281	227	263	1,160	139	572	146
5	59	28	29	44	98	438	227	185	1,110	210	549	139
6	54	29	28	44	98	687	245	146	970	357	481	105
7	51	28	33	46	88	922	193	177	994	417	338	92
8	49	27	34	58	84	1,090	177	177	1,140	417	281	86
9	49	26	37	63	81	1,110	169	300	1,210	417	227	77
10	47	26	54	69	79	1,040	154	438	1,230	459	210	70
11	46	26	40	70	77	922	154	438	1,110	377	245	67
12	45	25	38	66	86	898	154	397	974	377	281	79
13	44	25	38	64	105	922	139	281	779	319	300	88
14	43	24	38	63	125	874	139	210	733	377	357	76
15	40	24	40	60	146	802	132	169	664	503	549	72
16	42	25	40	60	139	710	161	132	526	549	641	70
17	40	24	39	56	125	641	154	125	459	779	733	69
18	39	25	38	54	112	595	154	139	459	850	572	58
19	38	25	38	54	125	549	193	154	549	1,110	459	56
20	36	25	38	58	125	526	210	177	549	1,110	377	53
21	36	26	38	69	118	526	218	185	459	574	300	48
22	36	26	38	81	118	503	227	177	357	664	263	44
23	35	27	38	98	125	503	281	263	281	459	227	42
24	34	26	40	98	132	459	357	300	245	377	218	41
25	33	27	40	98	161	417	338	459	210	319	218	40
26	33	27	40	92	169	397	281	481	185	300	227	40
27	31	27	39	97	193	377	202	438	210	300	193	39
28	32	28	40	85	245	357	161	572	202	319	169	38
29	31	27	38	80		377	132	710	210	300	154	37
30	31	28	40	77		357	125	641	245	319	146	36
31	30		40	68		319		481		281	139	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	65	30	43.2	0.042	0.05
November	29	24	26.5	.026	.03
December	54	28	37.0	.036	.04
January	98	40	65.5	.064	.07
February	245	71	117	.115	.12
March	1,110	227	591	.579	.67
April	357	125	205	.201	.22
May	710	98	300	.294	.34
June	1,230	185	638	.625	.70
July	1,110	139	445	.436	.50
August	733	139	362	.345	.40
September	227	36	81.3	.080	.09
The year.	1,230	24	243	.238	3.23

## Ochlockonee River near Bloxham, Fla.

Location.- Water-stage recorder in sec. 29, T. 1 S., R. 4 W., 1,000 feet below dam and 1 mile west of Bloxham.

Drainage area.- 1,660 square miles.

Records available.- June 1926 to September 1934.

Extremes.- Maximum discharge during year, 2,810 second-feet Mar. 10 (gage height, 7.38 feet); minimum, 3.2 second-feet Oct. 2 (gage height, -1.72 feet).  
1926-34: Maximum discharge, 19,900 second-feet Aug. 19, 1928 (gage height, 21.4 feet); no flow Sept. 21, 22, 1929, and several days in 1931.

Remarks.- Records fair except those below 100 second-feet and those estimated Aug. 2-6, Sept. 14-16, which are poor. Flow regulated by operation of power plant 1,000 feet above gage.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	269	239	308	339	740	324	245	1,510	459	716	457
2	113	174	345	354	401	511	1,180	376	1,590	7.5	650	406
3	397	152	300	197	281	308	1,220	263	896	1,050	650	645
4	580	127	240	148	369	507	728	112	1,640	472	1,000	842
5	217	29	201	231	266	1,590	677	247	1,680	638	1,100	771
6	216	271	233	251	494	1,820	1,260	211	1,480	768	560	506
7	214	507	346	253	600	1,510	296	793	1,280	925	491	487
8	264	432	396	180	975	1,710	137	656	1,100	520	632	368
9	115	468	536	736	606	986	526	391	1,050	1,300	443	166
10	225	163	621	220	244	1,800	567	778	597	1,300	268	314
11	188	40	436	164	250	1,320	813	675	1,120	1,290	548	411
12	193	11	529	199	477	942	732	590	1,290	1,190	362	382
13	51	49	574	192	193	624	471	58	1,380	949	231	154
14	53	81	303	160	385	449	400	680	1,720	768	759	240
15	17	51	240	208	338	611	148	812	1,630	616	374	190
16	85	163	447	231	351	725	358	727	1,410	1,090	167	200
17	91	328	326	263	169	272	215	854	1,080	1,040	291	285
18	114	185	402	279	149	316	323	712	1,240	1,520	481	400
19	121	48	568	292	264	1,280	211	414	1,100	1,070	990	261
20	574	168	491	311	292	982	174	323	1,070	1,740	560	207
21	109	225	448	422	234	783	80	308	1,020	1,830	659	265
22	14	214	408	471	748	1,110	19	656	823	1,380	333	188
23	105	213	458	561	900	1,100	62	753	805	1,470	792	201
24	122	196	412	1,000	623	560	156	780	416	993	752	264
25	116	206	369	1,170	587	285	115	734	700	836	514	201
26	125	568	579	647	1,530	1,250	329	362	809	648	1,050	196
27	185	308	274	423	1,310	782	143	149	1,200	7.1	1,060	206
28	131	303	228	320	625	730	107	790	1,020	552	897	218
29	26	195	226	374		694	49	991	1,180	1,220	1,110	259
30	113	211	393	353		596	153	831	1,370	840	898	237
31	135		302	262		523		1,040		808	849	
Month						Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October						580	14	163	0.098		0.11	
November						568	11	212	.123		.14	
December						621	201	363	.251		.27	
January						1,170	148	360	.217		.25	
February						1,530	149	500	.301		.31	
March						1,820	272	888	.535		.62	
April						1,260	19	402	.242		.27	
May						1,040	58	562	.339		.39	
June						1,720	416	1,170	.705		.79	
July						1,530	459	990	.596		.69	
August						1,110	167	651	.392		.45	
September						842	154	331	.199		.22	
The year.						1,830	11	552	.333		4.51	

## Chattahoochee River at West Point, Ga.

Location.- Water-stage recorder just below Oseligee Creek and 1 mile upstream from West Point, Troup County.

Drainage area.- 3,550 square miles.

Records available.- July 1896 to December 1910, January 1912 to September 1934.

Average discharge.- 36 years, 5,860 second-feet.

Extremes.- Maximum discharge during year, 34,700 second-feet Mar. 5 (gage height, 16.52 feet); minimum, 1,060 second-feet Oct. 15 (gage height, 2.40 feet).  
1896-1910, 1912-34: Maximum discharge, 134,000 second-feet Dec. 10, 1919 (gage height, 30.0 feet); minimum, 224 second-feet Sept. 12, 1925 (gage height, 1.64 feet).

Remarks.- Records good. Slight diurnal fluctuation caused by power plants upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,200	1,390	1,600	2,640	2,080	17,800	3,600	6,200	3,120	2,880	6,360	2,880
2	2,080	1,390	1,600	4,240	2,640	7,600	3,360	5,200	3,360	5,530	4,240	2,800
3	3,760	1,390	1,620	3,640	2,880	6,830	3,280	4,720	4,720	6,880	2,960	2,000
4	2,640	1,410	1,680	4,720	2,860	27,800	3,200	4,080	19,600	4,400	2,320	1,810
5	1,790	1,420	1,810	3,760	2,800	32,900	3,120	3,600	25,700	3,440	2,720	1,710
6	1,660	1,460	1,870	3,120	2,480	27,300	3,120	3,440	13,200	3,200	6,200	1,680
7	1,470	1,500	2,400	3,600	2,320	26,900	3,040	4,080	15,600	2,800	5,860	1,650
8	1,330	1,550	2,240	5,200	2,240	26,400	2,960	4,240	17,800	2,800	5,200	1,600
9	1,220	1,620	1,940	5,200	2,160	8,640	2,960	3,440	15,400	3,680	3,920	1,520
10	1,200	1,580	1,820	4,720	2,160	6,540	2,960	3,040	7,240	4,240	2,640	1,420
11	1,180	1,490	1,760	3,840	2,160	5,700	3,120	2,800	5,860	3,680	2,480	1,360
12	1,150	1,460	1,730	3,200	2,640	5,200	2,880	2,880	8,360	3,600	6,760	1,320
13	1,300	1,460	1,730	3,040	3,600	4,880	2,720	2,720	9,160	5,200	9,960	1,920
14	1,110	1,460	1,810	2,960	3,600	4,720	2,640	2,560	6,540	4,400	5,800	1,950
15	1,120	1,440	1,810	2,800	3,280	4,400	2,720	3,040	4,560	2,960	3,840	1,820
16	1,140	1,420	1,810	2,720	2,960	4,240	3,600	6,020	3,840	2,480	2,960	3,200
17	3,120	1,410	1,740	2,560	2,640	4,080	4,560	12,100	4,560	2,160	2,480	3,200
18	2,720	1,440	1,730	2,400	2,480	4,000	4,720	10,400	5,040	2,080	2,960	3,200
19	1,780	1,490	1,840	2,320	2,640	4,000	5,860	5,860	6,200	2,480	3,600	2,480
20	1,810	1,500	2,160	2,240	2,800	4,880	7,600	4,240	4,880	2,160	4,240	1,940
21	1,840	1,520	2,800	2,240	2,800	6,020	5,530	3,680	4,240	2,640	5,040	1,650
22	1,540	1,870	2,720	2,160	2,800	5,860	4,240	3,760	3,520	2,480	3,360	1,500
23	1,670	2,400	2,560	2,160	2,800	4,880	3,760	3,440	3,040	2,080	2,480	1,520
24	1,960	2,720	2,320	2,160	2,480	4,240	3,560	3,600	2,800	1,870	2,320	1,860
25	1,980	2,560	2,080	2,160	2,480	3,920	4,000	4,240	2,640	1,620	2,160	1,780
26	1,680	2,160	2,080	2,320	10,800	3,760	5,860	3,200	2,560	3,200	4,720	1,950
27	1,520	1,820	2,240	2,240	20,200	3,840	4,560	2,720	2,400	3,120	4,240	1,760
28	1,460	1,700	2,560	2,160	18,100	3,920	4,080	2,560	2,320	3,200	4,980	1,540
29	1,420	1,630	3,680	2,160		3,760	5,200	2,480	2,320	3,440	5,200	1,660
30	1,380	1,600	2,980	2,000		3,920	7,600	2,480	2,400	3,840	3,280	2,160
31	1,380		2,400	1,950		3,920		2,560		7,420	2,800	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	3,760			1,110			1,695			0.477	0.55	
November	2,720			1,390			1,642			.465	.52	
December	3,680			1,600			2,007			.591	.68	
January	5,200			1,950			2,995			.844	.97	
February	20,200			2,080			4,139			1.17	1.22	
March	32,900			3,760			9,131			2.57	2.96	
April	7,600			2,640			4,007			1.13	1.26	
May	12,100			2,480			4,174			1.18	1.36	
June	25,700			2,320			7,099			2.00	2.23	
July	7,420			1,620			3,418			.963	1.11	
August	9,980			2,160			4,132			1.16	1.34	
September	3,200			1,320			1,961			.552	.62	
The year	32,900			1,110			3,874			1.09	14.82	

## Chattahoochee River at Columbus, Ga.

Location.— Water-stage recorder at Central of Georgia Railway bridge in Columbus, Muscogee County, half a mile below Eagle and Phoenix Dam and  $1\frac{1}{4}$  miles below City Mills Dam. Zero of gage is 185.25 feet above mean sea level.

Drainage area.— 4,670 square miles.

Records available.— December 1912, August 1929 to September 1934.

Extremes.— Maximum discharge during year, 49,200 second-feet Mar. 5 (gage height, 27.62 feet); minimum, 768 second-feet Feb. 4 (gage height, 0.54 foot); minimum daily discharge, 992 second-feet Nov. 12.

1912, 1929-34: Maximum discharge, 58,800 second-feet Dec. 30, 1932 (gage height, 31.12 feet); minimum, 294 second-feet Oct. 23, Nov. 14, 1931 (gage height, 0.06 foot); minimum daily discharge, 480 second-feet Oct. 31, 1931.

Maximum stage known, 53.2 feet Mar. 15, 1929 (discharge not determined).

Remarks.— Records good. Considerable diurnal fluctuation caused by several power dams upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,230	2,380	2,240	2,570	3,350	22,300	2,380	6,630	3,750	2,300	4,260	3,130
2	1,720	2,570	1,580	2,760	2,950	12,600	2,800	6,510	2,180	3,070	4,260	1,770
3	2,280	2,570	1,540	3,850	1,440	7,600	5,000	6,390	1,360	6,390	4,160	4,060
4	1,900	1,720	1,910	3,850	1,190	36,700	5,910	6,390	3,220	5,440	4,160	5,550
5	1,860	1,110	1,620	3,950	2,730	47,300	6,030	6,390	28,900	5,000	4,160	5,910
6	1,950	2,150	1,810	3,950	3,450	35,000	6,030	6,270	21,100	5,670	4,160	5,790
7	1,540	2,570	2,190	3,280	3,350	27,400	5,910	6,510	12,600	5,790	4,160	5,910
8	1,440	2,480	1,810	2,690	3,350	28,200	4,140	6,390	22,300	4,600	4,160	5,000
9	1,810	2,480	1,360	3,950	3,050	20,600	4,160	6,270	16,300	4,600	4,160	4,260
10	1,950	2,480	1,150	3,950	1,900	6,510	5,110	6,270	12,000	6,510	5,670	3,550
11	2,050	1,230	1,810	3,950	1,720	5,330	5,670	5,790	4,680	6,270	5,790	2,280
12	2,050	992	2,380	4,060	3,030	4,900	5,550	3,050	13,800	6,150	6,500	2,240
13	2,000	2,020	2,480	4,260	3,650	6,270	5,790	1,720	9,590	6,150	6,510	2,280
14	1,480	2,480	2,760	4,480	3,750	6,390	4,580	3,250	10,000	5,650	5,440	2,330
15	1,360	2,570	2,760	5,220	4,060	6,150	4,060	4,060	9,080	4,680	5,910	2,240
16	1,950	2,570	1,810	5,790	4,060	6,270	4,790	5,250	6,030	4,680	5,790	1,720
17	2,480	2,570	1,280	5,790	1,950	4,470	4,260	7,400	4,210	5,910	5,910	1,900
18	2,570	1,440	2,240	5,670	1,320	2,660	4,260	6,390	4,900	4,580	5,670	2,190
19	2,480	1,400	2,860	5,670	3,100	4,370	5,330	6,270	6,030	4,160	4,790	2,190
20	2,380	2,210	2,980	4,680	3,450	5,790	7,270	5,550	6,150	4,160	4,680	2,480
21	1,360	2,660	2,760	3,350	3,450	6,030	6,510	4,680	5,910	2,360	5,330	2,380
22	1,230	2,660	2,760	2,950	4,370	5,910	4,310	6,270	5,220	1,670	4,480	2,190
23	2,000	2,380	1,850	3,050	4,260	6,150	5,550	6,270	5,220	3,240	4,260	1,670
24	2,380	2,100	1,110	3,350	2,100	5,910	6,150	6,270	4,260	3,650	4,260	2,190
25	2,380	2,140	1,070	4,160	1,440	4,790	6,390	6,270	4,160	3,850	2,240	2,380
26	2,380	1,490	1,580	3,850	4,180	4,260	6,390	4,790	5,440	3,850	1,440	2,570
27	2,380	2,220	2,140	2,480	6,390	5,910	6,390	3,750	5,440	3,950	2,860	2,480
28	1,360	2,760	2,100	2,190	7,210	5,670	6,390	3,950	4,370	2,710	4,370	2,480
29	1,280	2,760	2,190	2,660	5,440	5,440	6,510	3,950	4,060	2,050	4,580	1,950
30	2,100	2,380	2,380	3,150	5,220	6,630	4,060	4,060	4,060	3,410	4,260	1,540
31	2,380		2,050	3,250	4,580		4,060	4,060		4,260	4,260	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	2,570			1,230			1,926			0.412	0.48	
November	2,760			992			2,185			.468	.52	
December	2,980			1,070			2,014			.451	.50	
January	5,790			2,190			3,832			.821	.95	
February	7,210			1,190			3,223			.690	.72	
March	47,300			2,660			11,510			2.46	2.84	
April	7,270			2,380			5,342			1.14	1.27	
May	7,400			1,720			5,369			1.15	1.33	
June	28,900			1,360			8,211			1.76	1.96	
July	6,510			1,670			4,434			.949	1.09	
August	6,510			1,440			4,601			.965	1.14	
September	5,910			1,540			2,951			.692	.71	
The year	47,300			992			4,646			.995	13.51	

## Chattahoochee River at Columbia, Ala.

Location.- Water-stage recorder in T. 4 N., R. 29 E., at highway bridge a quarter of a mile below Central of Georgia Railway and half a mile east of Columbia.

Drainage area.- 8,040 square miles.

Records available.- July 1928 to September 1934.

Extremes.- Maximum discharge during year, 63,200 second-feet Mar. 6 (gage height, 35.98 feet); minimum, 2,050 second-feet Oct. 3 (gage height, 3.00 feet).  
1928-34: Maximum discharge, 203,000 second-feet Mar. 18, 1929 (gage height, 56.05 feet); minimum, 1,220 second-feet Oct. 28, 1931 (gage height, 1.79 feet).

Remarks.- Records good except those for Feb. 10-17 (gage heights partly estimated), which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,500	2,680	3,750	3,550	4,720	10,500	8,550	9,720	5,710	5,490	5,270	5,710
2	2,270	3,350	3,650	3,450	5,270	17,500	7,230	9,720	5,820	5,710	5,510	5,490
3	2,180	3,450	3,450	3,750	5,380	20,400	5,490	9,200	6,270	6,150	6,150	4,280
4	2,500	3,650	2,860	4,170	4,830	28,800	6,040	8,680	4,940	8,310	5,930	3,150
5	3,350	3,650	2,770	5,050	3,550	55,200	7,950	8,430	3,850	11,300	5,710	5,710
6	2,950	3,150	3,150	5,600	2,770	62,600	8,430	8,430	15,900	9,200	5,490	6,870
7	2,680	2,500	3,450	5,930	3,650	58,300	8,550	8,310	27,100	8,190	5,600	6,990
8	2,680	2,770	3,650	5,930	4,720	46,000	8,430	9,350	19,400	8,650	6,390	6,870
9	2,320	3,550	3,650	5,050	4,610	35,800	8,810	9,720	21,100	9,070	5,040	6,870
10	2,140	3,650	3,550	4,500	4,400	32,800	6,870	8,940	20,400	8,940	5,930	5,710
11	2,270	3,550	2,860	5,380	3,950	18,700	6,990	8,430	17,400	9,330	6,150	5,160
12	2,500	3,550	2,590	5,380	4,500	12,400	7,710	8,190	10,500	9,720	9,720	4,500
13	2,590	2,860	2,770	5,490	5,500	10,100	7,830	6,990	13,800	9,590	10,600	3,450
14	2,680	2,410	4,060	5,710	6,600	9,980	7,710	4,630	17,200	9,590	11,300	3,450
15	2,680	2,590	4,280	5,710	7,100	10,500	8,070	4,590	14,500	8,070	9,980	3,550
16	2,320	3,450	4,390	5,820	6,900	10,200	10,200	6,150	11,900	7,230	8,310	3,850
17	2,410	3,650	4,280	6,750	6,150	9,980	12,700	7,470	10,400	6,040	7,830	3,750
18	3,450	3,650	3,450	7,110	5,490	9,460	11,600	10,500	8,190	6,270	7,590	4,390
19	4,170	3,650	2,950	7,110	4,610	7,590	9,720	10,500	6,870	6,870	8,940	3,750
20	3,950	3,150	3,450	7,230	5,160	8,810	9,200	9,200	8,190	5,710	8,940	3,450
21	3,650	2,500	4,500	7,230	6,510	10,600	13,700	8,430	8,430	5,380	7,590	3,250
22	3,550	3,050	4,280	5,830	6,390	10,800	13,100	7,470	8,070	5,050	7,350	3,350
23	2,860	3,850	4,280	4,830	6,040	9,980	10,100	8,190	7,590	3,550	7,470	3,450
24	2,410	3,950	4,170	4,500	6,990	9,590	7,710	9,460	6,990	2,680	6,390	3,150
25	2,770	3,750	3,450	4,610	6,630	9,460	8,430	9,330	6,750	3,950	6,150	2,860
26	3,350	3,350	2,590	5,600	5,490	8,940	8,680	9,720	5,710	5,490	5,820	2,770
27	3,350	3,150	2,590	6,630	7,110	7,830	8,680	9,070	5,930	5,330	4,170	3,250
28	3,450	2,860	2,770	5,930	10,400	9,070	8,550	7,230	6,750	5,600	3,450	3,350
29	3,350	2,950	3,350	4,610	10,300	9,590	8,550	5,820	6,630	5,270	4,850	3,450
30	2,770	3,650	3,450	3,750	9,590	9,070	9,070	5,710	5,820	4,280	6,510	3,550
31	2,410		3,350	4,060	9,070		5,710			3,750	6,270	
Month	Maximum				Minimum		Mean		Per square mile		Run-off in inches	
October	4,170				2,140		2,855		0.355		0.41	
November	3,950				2,410		3,266		.406		.45	
December	4,500				2,590		3,477		.432		.50	
January	7,230				3,450		5,366		.667		.77	
February	10,400				2,770		5,551		.690		.72	
March	62,600				7,590		18,730		2.33		2.69	
April	13,700				5,490		8,822		1.10		1.23	
May	10,500				4,390		8,203		1.02		1.18	
June	27,100				3,850		10,600		1.32		1.47	
July	11,300				2,680		6,765		.841		.97	
August	11,300				3,450		6,815		.860		.99	
September	6,990				2,770		4,306		.536		.60	
The year	62,600				2,140		7,088		.882		11.98	

## Apalachicola River near River Junction, Fla.

Location.— Water-stage recorder in sec. 5, T. 3 N., R. 6 W., at Louisville & Nashville Railroad bridge 1 mile below confluence of Flint and Chattahoochee Rivers and 1½ miles west of River Junction. Zero of gage is 44.90 feet above mean sea level.

Drainage area.— 17,100 square miles.

Records available.— December 1928 to September 1934.

Extremes.— Maximum discharge during year, 63,400 second-feet Mar. 8 (gage height, 17.57 feet); minimum discharge, 6,910 second-feet Oct. 10; minimum gage height, -0.51 foot Nov. 15.

1928-34: Maximum discharge, 293,000 second-feet Mar. 20, 1929 (gage height, 34.70 feet); minimum discharge, 5,120 second-feet Nov. 5, 11, 1931; minimum gage height, -1.70 feet Nov. 5, 1931.

Remarks.— Records good. Stage estimated Sept. 14, 16.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,900	7,400	8,260	8,620	10,100	16,500	18,900	17,700	14,200	12,700	9,900	12,300
2	7,570	7,740	8,980	8,620	10,500	17,900	18,600	17,900	14,000	12,100	11,500	11,900
3	7,240	8,260	8,980	8,620	11,100	24,800	17,200	17,700	14,000	11,900	12,900	11,600
4	7,080	8,440	8,080	8,980	11,100	27,800	15,600	17,000	14,200	12,700	12,500	10,900
5	7,740	8,440	7,570	9,340	10,500	40,000	16,000	16,700	13,100	15,600	12,100	8,900
6	8,840	8,440	7,570	10,100	9,340	51,000	17,400	17,000	12,900	18,200	12,300	11,500
7	7,900	8,260	8,080	10,700	8,980	57,600	17,400	17,400	26,500	17,700	12,100	12,300
8	7,570	7,570	8,440	11,100	8,520	62,800	17,400	19,200	30,900	18,200	12,300	12,300
9	7,400	7,570	8,620	11,100	10,300	61,400	17,400	18,600	28,600	19,400	12,900	12,300
10	7,080	8,260	8,980	10,300	10,500	57,300	17,000	16,400	30,900	19,900	12,500	12,100
11	7,080	8,440	8,980	10,100	10,500	51,000	15,100	18,200	30,900	19,400	12,300	10,900
12	7,400	8,440	8,620	10,900	10,300	40,700	15,100	17,700	28,900	19,400	13,300	10,500
13	8,080	8,080	9,160	11,100	10,100	35,200	16,600	17,400	25,400	18,200	16,700	9,700
14	8,440	7,570	8,700	11,500	10,900	32,900	15,300	16,200	29,500	19,400	17,700	8,950
15	8,080	7,080	10,500	11,300	11,900	31,700	15,300	14,200	30,900	19,200	16,200	8,800
16	7,740	7,400	10,300	11,300	12,100	30,300	16,200	13,500	29,700	17,700	17,000	8,800
17	7,400	8,260	9,900	11,300	11,900	28,400	18,400	14,900	28,100	16,500	16,200	8,800
18	7,400	8,440	9,700	12,300	11,900	25,700	20,200	16,200	25,100	14,900	16,000	8,800
19	8,260	8,440	9,160	12,500	11,600	23,500	19,400	18,900	22,500	14,200	15,300	9,340
20	8,980	7,900	8,800	12,700	10,900	20,900	17,700	19,900	20,400	14,000	16,000	9,700
21	8,800	7,740	8,980	12,700	11,500	21,400	18,200	19,200	20,400	13,100	16,000	10,100
22	8,800	7,240	9,700	12,500	12,600	22,500	22,200	19,600	19,600	12,500	14,600	9,700
23	8,980	7,400	9,700	11,500	12,600	21,900	21,700	17,900	18,600	11,900	14,000	9,700
24	8,620	8,080	9,700	10,500	12,600	20,900	19,200	18,600	17,700	10,500	13,800	9,520
25	8,260	8,080	9,520	10,100	12,900	20,400	17,700	19,600	17,000	9,700	12,700	8,800
26	8,440	7,900	8,800	10,100	12,900	20,200	18,200	19,400	16,000	10,500	12,300	8,260
27	8,800	7,570	8,080	11,100	11,900	19,600	18,900	19,600	14,200	11,500	11,600	8,080
28	8,900	7,570	7,900	11,900	13,800	18,600	19,900	18,600	13,800	11,300	10,100	8,440
29	9,340	7,240	8,080	11,300		19,600	18,200	16,500	14,200	11,500	9,340	8,440
30	9,160	7,400	8,620	10,100		20,200	17,700	15,100	13,800	11,100	10,500	8,440
31	8,260		8,620	9,520		19,400		14,400		10,500	12,100	
Month	Maximum					Minimum	Mean		Per square mile	Run-off in inches		
October	9,340					7,080	8,110		0.474	0.55		
November	8,440					7,080	7,890		.451	.51		
December	10,500					7,570	8,910		.521	.60		
January	12,700					8,620	10,700		.626	.72		
February	13,800					8,980	11,200		.655	.68		
March	62,800					16,500	31,000		1.81	2.09		
April	22,200					15,100	17,700		1.04	1.16		
May	19,900					13,500	17,500		1.02	1.18		
June	30,900					12,900	21,200		1.24	1.38		
July	19,900					9,700	14,700		.860	.99		
August	19,300					9,540	13,400		.764	.90		
September	12,300					8,080	10,000		.585	.65		
The year.	62,800					7,080	14,400		.842	11.41		

## Mill Creek near Warm Springs, Ga.

Location.- Water-stage recorder in Harris County, 190 feet upstream from the Harris-Meriwether County line and 6 miles southwest of Warm Springs.

Drainage area.- 0.869 square miles.

Records available.- December 1933 to September 1934.

Extremes.- Maximum discharge during period, 33.6 second-foot July 2 (gage height, 1.065 feet); minimum, 0.48 second-foot July 27 (gage height, 0.135 foot).

Remarks.- Records good except those estimated June 23 to July 1, July 12, 13, which are fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				1.72	2.12	1.54	1.05	1.20	0.68	1.0	0.79	0.62
2				1.45	1.45	1.54	1.05	.98	.73	8.51	.68	.62
3				1.36	1.36	6.45	1.05	.98	2.24	2.02	.62	.62
4				1.20	1.28	12.0	1.05	.85	1.28	1.36	.62	.68
5				1.63	1.28	4.11	.98	.85	.98	1.45	.62	.62
6				1.36	1.20	2.71	.98	1.20	.92	1.97	.62	.68
7				1.63	1.20	2.02	.92	1.05	.79	1.29	.99	.73
8				1.36	1.12	1.54	.98	.92	.73	1.20	.79	.73
9				1.28	1.05	1.45	.98	.85	.73	2.22	.68	.68
10				1.20	1.12	1.45	.98	.85	.69	1.45	.68	.68
11				1.20	1.45	1.28	.98	.85	.73	.98	.62	.68
12				1.54	2.12	1.20	.92	.79	.79	.85	1.27	.73
13				1.36	1.45	1.12	.92	.79	.79	.75	.73	.92
14				1.28	1.36	1.12	.92	.98	.79	.68	.68	.73
15				1.20	1.36	1.12	2.80	.98	.68	.68	.62	.79
16				1.20	1.36	1.05	1.72	1.62	.68	.68	.62	.79
17			1.20	1.20	1.28	1.05	1.28	1.12	.73	.62	.62	.79
18			1.20	1.20	1.28	1.05	1.20	.92	.85	.62	.79	.73
19			1.36	1.28	1.92	1.82	2.30	.85	.68	.62	.73	.68
20			1.20	1.28	1.28	1.20	2.02	.79	.62	.62	.92	.62
21			1.20	1.20	1.20	1.12	1.28	.79	.62	.62	.79	.62
22			1.20	1.20	1.82	1.05	1.05	.79	.62	.62	.73	.62
23			1.20	1.36	1.36	.98	.98	.73	.6	.62	.73	.62
24			1.12	1.28	1.12	.98	1.05	.73	.6	.62	.73	.68
25			1.12	2.02	1.54	.92	.92	.68	.6	.62	.68	.62
26			1.12	1.45	3.10	.92	.92	.62	.6	.62	.68	.62
27			1.12	1.36	1.72	1.45	.92	.62	.6	.57	.73	.62
28			1.12	1.28	1.54	1.12	1.20	.68	.6	.57	.79	.62
29			1.12	1.28		1.05	1.45	.73	.6	.62	.73	.62
30			1.12	1.20		1.05	1.45	.73	.85	.97	.68	.62
31			1.12	1.28		1.05		.73		.98	.62	
Month				Maximum		Minimum	Mean		Per square mile	Run-off in inches		
October												
November												
December 17-31				1.36		1.12	1.17		1.35	0.75		
January				2.02		1.20	1.35		1.55	1.79		
February				3.10		1.05	1.48		1.70	1.77		
March				12.0		.92	1.89		2.17	2.50		
April				2.80		.92	1.21		1.39	1.55		
May				1.62		.62	.879		1.01	1.16		
June				2.24			.780		.898	1.00		
July				8.51		.57	1.19		1.37	1.58		
August				1.27		.62	.728		.838	.97		
September				.92		.62	.679		.791	.87		
The year												



## Flint River at Albany, Ga.

Location.- Water-stage recorder at Georgia Northern Railway bridge in Albany, Dougherty County. Zero of gage is 150.04 feet above mean sea level.

Drainage area.- 5,160 square miles.

Records available.- February 1897 to June 1921, September 1929 to September 1934.

Average discharge.- 23 years (1902-20, 1929-34), 6,510 second-feet.

Extremes.- Maximum discharge during year, 21,700 second-feet Mar. 12 (gage height, 17.28 feet); minimum, 58 second-feet Nov. 18 (gage height, 0.44 foot); minimum daily discharge, 527 second-feet Nov. 18.

1897-1921, 1929-34: Maximum gage height, 32.4 feet (United States Weather Bureau datum) Mar. 25, 1897 (discharge not determined); minimum discharge, that of Nov. 18, 1933; minimum daily discharge, 327 second-feet Aug. 24, 1930.

Maximum stage known, 37.64 feet (present datum) Jan. 21, 1925 (discharge, 92,000 second-feet).

Remarks.- Records good except those for which discharge was estimated, Dec. 16-22, which are considered fair. Considerable diurnal fluctuation caused by power plants above station.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	810	1,900	2,410	2,190	3,170	6,220	6,400	3,990	3,680	1,240	3,600	2,830
2	1,100	1,820	918	2,300	3,100	6,220	3,680	3,680	2,050	2,760	3,460	3,460
3	1,850	1,800	1,380	2,300	3,100	6,760	5,860	4,310	3,600	2,630	2,210	3,100
4	1,800	1,850	1,460	2,350	2,700	10,100	5,140	5,680	3,760	3,030	2,210	2,460
5	1,640	2,080	1,800	2,300	3,170	9,380	4,630	5,600	3,760	5,320	3,240	2,020
6	1,460	1,420	2,040	2,400	3,100	13,100	4,630	5,140	3,830	7,480	2,900	1,950
7	1,390	1,770	2,140	2,350	3,170	15,900	4,470	4,970	8,400	8,700	3,530	1,980
8	920	1,720	2,830	2,470	3,310	17,600	4,310	4,800	8,530	8,530	3,100	1,680
9	1,800	2,040	2,960	2,760	3,310	16,100	3,990	4,470	10,400	6,400	2,390	1,150
10	2,300	1,820	2,460	3,030	2,900	11,800	3,830	4,630	11,000	5,070	2,580	2,110
11	3,170	1,020	4,970	3,030	2,140	17,400	3,910	5,140	13,000	5,190	2,350	1,610
12	3,240	1,510	5,140	3,240	2,640	21,000	3,680	5,320	14,800	5,140	2,900	1,680
13	2,160	1,330	4,470	3,310	3,100	17,600	3,830	4,800	16,400	6,580	3,530	1,630
14	1,460	1,940	3,100	2,640	3,310	15,800	3,550	4,310	15,000	6,040	3,310	1,700
15	1,580	2,120	1,900	2,830	3,630	13,900	3,240	3,460	13,900	5,140	3,680	1,430
16	1,580	1,540	2,500	3,030	3,600	9,380	3,760	3,380	10,900	4,800	5,140	1,380
17	1,990	1,180	2,800	2,900	3,680	8,360	3,830	3,830	9,690	3,250	3,440	2,160
18	1,850	527	2,700	2,830	3,600	7,120	3,830	5,860	9,720	2,150	3,170	3,170
19	1,580	1,470	2,800	2,830	3,680	7,120	4,150	6,040	8,360	2,150	3,030	4,630
20	2,410	708	2,600	3,030	3,680	6,580	5,860	6,040	6,760	2,120	3,100	3,680
21	3,030	690	2,650	2,440	3,680	6,040	6,220	6,220	6,220	2,040	2,480	3,380
22	2,760	750	2,750	2,640	3,760	5,500	5,860	5,860	5,860	1,610	2,550	3,170
23	3,030	586	1,900	2,700	3,760	6,040	6,580	5,500	5,680	2,580	2,640	1,900
24	2,760	624	1,900	2,640	3,760	6,400	6,940	5,140	4,970	2,310	2,320	2,160
25	2,520	820	1,900	2,640	3,830	6,220	7,660	5,140	4,070	1,830	2,010	2,010
26	2,400	1,290	2,400	2,640	3,830	6,040	7,660	5,140	2,640	1,620	780	2,000
27	3,830	927	2,300	2,640	3,990	5,680	6,220	4,970	2,830	1,570	1,970	1,980
28	2,860	1,500	2,240	2,700	5,140	5,320	5,140	4,900	2,520	1,550	2,210	1,930
29	1,820	1,960	2,400	3,030	5,320	4,800	4,070	2,460	2,460	1,890	2,540	1,460
30	951	2,760	2,300	2,960	5,860	4,630	3,680	2,140	1,580	2,560	668	668
31	1,900		1,990	2,960	6,220		3,680		2,240	2,400	3,100	
Month	Maximum				Minimum		Mean		Per square mile		Run-off in inches	
October	3,830				810		2,080		0.399		0.46	
November	2,760				527		1,449		.281		.31	
December	5,140				918		2,520		.488		.56	
January	3,310				2,190		2,713		.526		.61	
February	5,140				2,140		3,419		.663		.69	
March	21,000				5,320		9,745		1.89		2.18	
April	7,660				3,240		5,027		.974		1.09	
May	6,220				3,380		4,824		.935		1.08	
June	15,400				2,140		7,189		1.39		1.55	
July	8,700				1,240		3,685		.716		.83	
August	5,140				780		2,563		.555		.64	
September	4,630				668		2,212		.429		.48	
The year	21,000				527		3,981		.772		10.48	

## Flint River at Bainbridge, Ga.

Location.- Water-stage recorder at Decatur County Memorial Highway Bridge, in Bainbridge, Decatur County. Zero of gage is 58.06 feet above mean sea level.

Drainage area.- 7,290 square miles.

Records available.- January 1908 to December 1913, December 1928 to September 1934.

Extremes.- Maximum discharge during year, 20,900 second-feet Mar. 13 (gage height, 18.40 feet); minimum, 2,390 second-feet Nov. 25 (gage height, 3.86 feet).  
1908-13, 1928-34: Maximum discharge, 83,200 second-feet Mar. 21, 1929 (gage height, 37.73 feet); minimum, 2,300 second-feet Dec. 7, 1931 (gage height, 3.80 feet).  
Maximum stage known, 40.9 feet (present datum) Jan. 24, 1925 (discharge, 101,000 second-feet).

Remarks.- Records good.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,170	3,250	3,590	3,590	4,400	5,860	8,340	6,570	5,960	4,670	3,680	4,670
2	3,010	3,410	3,950	3,680	4,400	6,680	8,340	6,260	5,960	4,130	4,760	4,490
3	2,780	3,410	3,090	3,680	4,400	7,010	8,340	5,860	5,960	4,040	4,670	4,760
4	3,170	3,410	2,710	3,680	4,490	7,670	8,110	6,060	6,060	4,760	4,040	4,760
5	3,410	3,410	2,930	3,770	4,310	9,420	7,670	6,900	6,260	5,760	4,490	4,310
6	3,410	3,500	3,090	3,770	4,490	10,300	7,230	7,010	6,360	6,790	4,760	3,860
7	3,170	3,250	3,330	3,770	4,490	13,600	7,010	7,010	6,460	6,220	4,580	3,680
8	3,090	3,250	3,410	3,950	4,490	17,400	6,900	6,900	7,560	9,420	4,960	3,680
9	2,930	3,330	3,770	3,770	4,580	19,600	6,790	7,010	8,940	9,790	4,860	3,590
10	3,010	3,410	4,130	3,950	4,580	18,500	6,460	7,560	10,200	9,060	4,490	3,250
11	3,500	3,410	4,040	4,220	4,400	15,400	6,260	7,670	11,000	8,110	4,760	3,410
12	4,130	3,090	5,060	4,310	4,040	17,100	6,160	7,670	12,200	7,790	5,260	3,410
13	4,580	2,850	5,760	4,400	3,860	20,100	6,060	7,560	13,600	7,340	5,260	3,170
14	4,220	2,930	5,560	4,490	4,310	20,000	5,960	7,230	14,500	8,110	5,560	3,170
15	3,410	3,010	4,960	4,220	4,580	18,000	5,860	6,900	14,600	8,000	5,760	3,250
16	3,250	3,590	4,040	4,220	4,760	16,000	5,760	6,360	14,300	7,450	5,960	3,170
17	3,250	3,170	3,860	4,310	4,960	13,100	5,860	6,060	12,800	7,010	6,570	3,010
18	3,410	3,010	3,950	4,310	5,060	11,400	6,060	6,360	11,500	6,160	6,260	3,250
19	3,500	2,640	3,860	4,220	4,960	10,300	6,060	7,450	11,200	4,860	5,560	4,220
20	3,330	2,640	3,950	4,310	4,960	9,920	6,260	8,000	10,300	4,580	5,060	5,160
21	3,500	2,780	3,770	4,310	4,960	9,420	7,120	8,110	9,300	4,490	4,960	5,160
22	4,220	2,510	3,860	4,220	5,060	9,060	7,670	8,110	8,580	4,310	4,670	4,860
23	4,310	2,450	3,950	3,950	5,060	8,580	7,670	8,000	8,220	4,130	4,400	4,670
24	4,400	2,450	3,860	4,130	5,160	8,700	7,690	7,780	7,890	4,220	4,400	4,130
25	4,310	2,390	3,590	4,130	5,160	8,820	8,110	7,560	7,450	4,310	4,220	3,590
26	4,220	2,390	3,500	4,130	5,260	8,580	8,460	7,450	6,790	4,040	4,040	3,590
27	4,040	2,570	3,680	4,130	5,160	8,460	8,580	7,340	5,660	3,690	3,500	3,500
28	4,490	2,640	3,770	4,130	5,260	8,220	8,110	7,120	5,460	3,590	3,250	3,500
29	4,670	2,640	3,680	4,130		8,000	7,340	7,010	5,160	3,590	3,680	3,500
30	3,860	2,930	3,770	4,310		7,890	6,570	6,570	4,960	3,560	4,040	3,250
31	3,250		3,770	4,310		8,110		6,160		3,500	4,310	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,670	2,780	3,645	0.500	0.58
November	3,590	2,390	2,991	.410	.46
December	5,760	2,710	3,879	.532	.61
January	4,490	3,590	4,081	.560	.65
February	5,260	3,860	4,700	.645	.67
March	20,100	5,860	11,650	1.60	1.84
April	8,580	5,760	7,111	.975	1.09
May	8,110	5,860	7,084	.972	1.12
June	14,600	4,960	9,840	1.21	1.35
July	9,790	3,500	5,799	.765	.92
August	6,570	3,250	4,731	.649	.75
September	5,160	3,010	3,867	.530	.59
The year.	20,100	2,390	5,706	.763	10.63

## North Springs at Warm Springs, Ga.

Location.- Water-stage recorder in North Springs pool in Warm Springs, Meriweather County.

Records available.- December 1933 to September 1934.

Extremes.- Maximum discharge during period, 1.03 second-foot Mar. 23 (gage height, 1.36 feet); minimum, 0.71 second-foot at various times during period (gage height, 1.28 feet).

Remarks.- Records good except those estimated for Dec. 22, 26, 27, Jan. 19, 20, Feb. 26, 27, May 29, July 1, 2, 8, 9, 23. Discharge determined by weir formula. Discharge affected by regulation at Cold Spring and by stage in reservoir at Fish Hatchery.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0.85	0.73	0.79	0.75	0.83	0.79	0.75	0.75	0.81
2				.83	.73	.81	.75	.83	.81	.79	.75	.81
3				.83	.73	.83	.75	.83	.83	.81	.75	.81
4				.83	.73	.85	.77	.83	.83	.79	.73	.79
5				.85	.73	.83	.81	.83	.81	.77	.73	.79
6				.85	.73	.83	.81	.83	.79	.77	.73	.77
7				.83	.75	.81	.81	.83	.79	.77	.73	.77
8				.83	.75	.83	.83	.81	.79	.77	.73	.77
9				.77	.75	.81	.83	.81	.79	.79	.73	.77
10				.75	.77	.83	.83	.81	.79	.77	.73	.77
11				.77	.77	.81	.81	.81	.79	.77	.73	.79
12				.77	.79	.81	.85	.79	.79	.75	.73	.79
13				.77	.77	.81	.85	.79	.79	.75	.73	.77
14				.79	.79	.81	.83	.79	.79	.75	.73	.77
15				.77	.83	.81	.85	.79	.79	.75	.73	.77
16				.77	.81	.81	.83	.79	.79	.75	.73	.77
17				.75	.79	.81	.83	.79	.75	.75	.73	.77
18				.75	.79	.81	.83	.79	.73	.75	.73	.77
19				.75	.79	.83	.83	.79	.75	.75	.73	.77
20				.75	.77	.83	.83	.79	.73	.75	.73	.77
21				.73	.77	.81	.83	.77	.73	.75	.73	.77
22			0.77	.75	.77	.90	.83	.77	.73	.75	.73	.79
23			.79	.73	.79	.99	.83	.77	.73	.75	.73	.77
24			.83	.73	.77	1.01	.83	.77	.75	.75	.71	.77
25			.85	.73	.79	.90	.83	.77	.73	.75	.71	.77
26			.85	.73	.79	.79	.83	.79	.73	.77	.71	.77
27			.85	.73	.75	.81	.83	.79	.75	.77	.79	.77
28			.85	.73	.77	.81	.85	.79	.77	.77	.81	.77
29			.85	.73		.81	.83	.79	.77	.79	.81	.77
30			.83	.75		.81	.83	.77	.77	.77	.79	.77
31			.83	.75		.79		.79		.77	.81	
Month				• Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October												
November												
December 22-31				0.85	0.77	0.830						
January				.83	.73	.773						
February				.83	.73	.768						
March				1.01	.79	.832						
April				.85	.75	.819						
May				.83	.77	.798						
June				.83	.73	.773						
July				.81	.75	.764						
August				.81	.71	.742						
September				.81	.77	.777						
The year												

## Choctawhatchee River at Caryville, Fla.

Location.- Water-stage recorder in sec. 10, T. 4 N., R. 16 W., at highway bridge 300 feet below Louisville & Nashville Railroad bridge and three-quarters of a mile west of Caryville. Zero of gage is 39.03 feet above mean sea level.

Drainage area.- 3,490 square miles.

Records available.- August 1929 to September 1934.

Extremes.- Maximum discharge during year, 24,000 second-feet Mar. 8 (gage height, 12.28 feet); minimum discharge, 1,100 second-feet July 27; minimum gage height, 0.46 foot Sept. 30.

1929-34: Maximum discharge, 49,100 second-feet Oct. 4, 1929 (gage height, 14.83 feet); minimum, 865 second-feet Oct. 28, 1931 (gage height, 0.11 foot).

Remarks.- Records good.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,580	1,540	1,500	1,860	2,410	5,400	4,110	2,960	2,140	1,500	2,580	2,520
2	1,580	1,460	1,500	1,940	2,760	4,820	3,840	2,900	2,520	1,860	3,230	2,140
3	1,540	1,400	1,540	2,140	3,230	4,400	3,600	2,830	2,760	2,040	2,900	1,940
4	1,460	1,460	1,540	2,190	3,020	5,280	3,440	2,640	3,760	2,520	2,360	1,760
5	1,460	1,450	1,540	2,190	2,700	7,860	3,230	2,520	4,200	3,600	2,090	1,680
6	1,450	1,450	1,630	2,520	2,460	12,900	3,090	2,360	4,110	4,020	1,900	1,720
7	1,450	1,450	1,810	2,830	2,360	20,400	2,960	2,640	3,930	4,200	2,360	1,720
8	1,400	1,400	2,410	2,760	2,190	23,200	2,900	4,600	3,440	4,200	2,900	1,540
9	1,400	1,450	2,640	2,640	2,140	21,100	3,600	6,240	2,960	4,300	3,230	1,400
10	1,400	1,450	2,360	2,520	2,140	18,000	4,300	5,800	2,640	4,600	3,020	1,320
11	1,400	1,450	2,140	2,300	2,190	14,700	4,200	4,600	2,360	4,710	2,520	1,220
12	1,400	1,400	1,990	2,190	2,300	11,700	3,680	3,760	2,040	4,200	2,240	1,320
13	1,400	1,400	1,990	2,190	3,020	9,210	3,300	3,160	2,040	3,680	2,140	1,450
14	1,360	1,400	2,140	2,140	4,300	7,270	3,020	2,630	3,160	3,520	2,300	1,680
15	1,360	1,400	2,140	2,090	4,500	5,940	2,760	2,640	4,020	3,600	2,520	1,720
16	1,360	1,400	2,040	1,990	4,200	5,280	3,840	3,370	3,230	3,020	2,700	1,680
17	1,360	1,360	1,990	1,990	3,760	4,820	5,940	4,500	2,580	2,700	2,520	1,680
18	1,320	1,360	1,900	1,900	3,300	4,500	7,660	5,280	2,460	2,460	2,340	1,900
19	1,360	1,400	1,900	1,900	3,160	4,300	6,490	5,800	2,360	2,190	1,990	1,990
20	1,400	1,400	2,090	1,860	3,840	4,710	8,490	5,160	2,520	1,900	1,860	1,860
21	1,450	1,400	2,410	1,900	4,710	5,280	7,270	4,300	2,580	1,720	2,240	1,680
22	1,450	1,400	2,520	2,040	4,820	5,530	6,090	3,520	2,140	1,580	3,230	1,540
23	1,500	1,540	1,860	2,140	4,110	5,040	5,280	3,090	1,810	1,500	4,110	1,540
24	1,580	1,630	2,190	2,140	4,710	4,600	4,500	3,300	1,630	1,360	3,760	1,450
25	1,630	1,630	2,040	2,140	3,600	4,300	3,930	3,370	1,580	1,270	3,600	1,360
26	1,580	1,580	1,990	2,460	3,520	4,110	3,440	3,520	1,630	1,140	3,600	1,270
27	1,500	1,540	1,990	3,160	4,020	4,110	3,160	3,600	1,580	1,100	3,600	1,220
28	1,450	1,500	1,990	3,230	5,160	4,600	3,020	3,090	1,540	1,270	3,600	1,180
29	1,500	1,500	1,940	3,020	5,160	2,900	2,640	1,460	1,450	3,160	1,180	1,180
30	1,540	1,540	1,900	2,640	5,160	2,900	2,410	1,400	1,630	3,090	1,180	1,180
31	1,500		1,900	2,460	4,500		2,190		1,760	2,520		

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,630	1,320	1,450	0.415	0.48
November	1,630	1,360	1,460	.418	.47
December	2,640	1,600	1,980	.567	.65
January	3,230	1,860	2,310	.662	.76
February	5,160	2,140	3,380	.968	1.01
March	23,200	4,110	8,010	2.30	2.65
April	8,490	2,760	4,300	1.23	1.37
May	6,240	2,190	3,600	1.03	1.19
June	4,200	1,400	2,550	.731	.82
July	4,710	1,100	2,600	.745	.86
August	4,110	1,860	2,790	.799	.92
September	2,520	1,180	1,590	.456	.51
The year	23,200	1,100	3,000	.860	11.69

## Choctawhatchee River near Bruce, Fla.

Location.- Water-stage recorder in sec. 36, T. 1 N., R. 17 W., at bridge on State Highway 10 about 5 miles southeast of Bruce. Prior to Apr. 6, 1934, staff gage with datum 1.00 foot higher at Cowford Ferry, 1 mile downstream. Zero of gage is 3.94 feet above mean sea level.

Drainage area.- 4,580 square miles.

Records available.- October 1933 to September 1934.

Extremes.- Maximum discharge recorded during year ending Sept. 30, 1931, 39,100 second-feet Nov. 21, 22; maximum gage height recorded, 12.25 feet Nov. 22; minimum discharge recorded, 1,930 second-feet July 3-10, Sept. 28-30; minimum gage height recorded, 0.80 foot July 4-6, 9, 10.

Maximum discharge recorded during year ending Sept. 30, 1932, 25,100 second-feet Jan. 19 (gage height, 10.30 feet); minimum recorded, 1,680 second-feet Nov. 10-13 (gage height, 0.47 foot).

Maximum discharge recorded during year ending Sept. 30, 1933, 40,700 second-feet Apr. 18 (gage height, 12.40 feet); minimum recorded, 2,460 second-feet Sept. 29, 30 (gage height, 1.52 feet).

Maximum discharge recorded during year ending Sept. 30, 1934, 27,200 second-feet Mar. 11 (gage height, 10.58 feet); minimum recorded, 2,080 second-feet Sept. 30 (gage height, 0.98 foot).

The flood of March 1929 reached a stage of 25.0 feet (estimated discharge, 220,000 second-feet).

Remarks.- Records good for year ending Sept. 30, 1934, fair for Oct. 1, 1930, to Sept. 30, 1933. Readings of Cowford Ferry staff gage corrected to datum of recording gage.

Discharge, in second-feet, 1930-31

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,030	3,960	12,900	7,430	6,630	7,230	7,230	4,770	2,840	2,000	4,200	3,160
2	7,030	4,120	11,200	7,430	6,430	7,230	7,830	4,680	2,680	2,070	3,800	3,080
3	7,030	4,280	10,300	7,430	6,050	7,430	7,830	4,520	2,600	1,930	3,320	2,920
4	7,030	4,280	10,300	7,030	5,860	7,830	7,830	4,440	2,530	1,930	2,920	2,840
5	6,830	4,120	10,900	6,630	5,680	8,050	7,430	4,440	2,460	1,930	2,680	2,840
6	6,430	3,960	11,500	6,430	5,330	8,300	7,230	4,440	2,390	1,930	2,600	2,760
7	5,680	3,800	11,500	6,240	5,190	8,550	7,230	4,520	2,360	1,930	2,530	2,680
8	4,960	3,640	11,500	6,050	5,190	8,300	7,230	4,520	2,350	1,930	2,530	2,460
9	4,440	3,480	10,600	6,050	5,070	8,050	7,430	4,600	2,300	1,930	2,840	2,390
10	4,200	3,320	10,000	6,240	5,070	7,830	7,830	4,860	2,230	1,930	3,320	2,230
11	4,120	3,320	9,800	6,240	5,070	7,830	8,300	5,190	2,080	2,030	3,960	2,600
12	4,280	3,320	9,800	6,430	4,960	8,300	8,900	5,860	2,080	2,230	4,600	2,760
13	4,360	3,480	9,800	6,630	5,070	8,550	8,550	6,430	2,080	2,530	5,680	2,920
14	4,440	4,040	9,300	6,630	5,190	8,550	8,050	6,630	2,080	2,330	7,030	3,000
15	4,440	4,770	8,800	6,630	5,330	8,300	7,630	6,430	2,080	2,600	9,300	3,080
16	4,600	6,430	8,300	6,830	5,500	7,630	7,030	5,860	2,080	3,000	10,300	2,920
17	4,770	11,200	8,050	7,430	5,680	7,030	6,240	5,070	2,080	3,160	9,800	2,840
18	4,520	21,900	7,830	9,300	6,050	6,630	5,680	4,520	2,080	3,430	8,800	2,840
19	4,260	33,000	7,430	10,600	6,830	6,240	5,190	4,040	2,080	3,640	7,630	2,680
20	3,960	37,500	7,230	11,500	7,830	5,860	4,860	3,720	2,080	3,480	6,830	2,460
21	3,640	39,100	7,230	11,500	8,800	5,500	4,680	3,560	2,080	3,400	5,860	2,380
22	3,400	39,100	7,430	11,500	9,050	5,330	4,600	3,480	2,080	3,480	5,190	2,300
23	3,160	38,300	7,430	11,800	9,300	5,070	4,520	3,480	2,160	3,720	4,680	2,160
24	3,080	36,000	7,430	12,100	9,300	4,960	4,680	3,800	2,230	3,880	4,600	2,080
25	3,000	33,800	7,430	11,800	8,800	4,960	4,860	3,960	2,530	4,040	4,520	2,000
26	2,920	30,000	7,430	10,900	8,300	4,960	5,070	3,880	2,680	4,040	4,280	2,000
27	2,840	25,800	7,430	9,800	7,430	4,960	5,190	3,720	2,530	4,120	3,960	2,000
28	2,840	21,300	7,030	9,050	7,230	5,190	5,190	3,400	2,300	4,200	3,560	1,930
29	3,080	17,300	7,030	8,300		5,500	5,190	3,320	2,160	4,440	3,320	1,930
30	3,320	14,400	7,030	7,630		5,860	4,960	3,080	2,080	4,440	3,320	1,930
31	3,560		7,230	7,230		6,630		2,920		4,440	3,240	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,030	2,840	4,500	0.983	1.13
November	39,100	3,320	15,400	3.36	3.75
December	12,600	7,030	8,940	1.95	2.25
January	12,100	6,050	8,280	1.81	2.09
February	9,300	4,960	6,510	1.42	1.48
March	8,550	4,960	6,660	1.50	1.73
April	8,800	4,520	6,480	1.41	1.57
May	6,630	2,920	4,460	.974	1.12
June	2,840	2,080	2,280	.498	.56
July	4,440	1,930	2,970	.648	.75
August	10,300	2,530	4,880	1.07	1.23
September	3,160	1,930	2,540	.555	.62
The year	39,100	1,930	6,170	1.35	18.28

## Choctawhatchee River near Bruce, Fla.

(Continued)

## Discharge, in second-feet, 1931-32

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	1,890	1,780	1,930	4,200	6,430	9,300	4,600	3,160	10,600	4,860	5,500	7,030		
2	1,890	1,780	1,930	4,200	6,630	8,800	4,600	3,240	9,550	4,770	6,240	6,630		
3	1,860	1,740	1,890	4,280	6,630	8,560	4,680	3,480	8,800	4,860	6,830	6,240		
4	1,860	1,740	1,930	4,360	6,630	7,830	4,860	3,720	7,630	4,960	7,030	6,240		
5	1,860	1,710	1,930	4,520	6,630	7,230	5,070	3,800	6,430	5,190	7,030	6,630		
6	1,820	1,710	1,930	4,960	6,630	6,830	5,190	3,560	5,190	5,500	7,030	7,030		
7	1,890	1,710	1,930	5,190	6,430	6,430	5,330	3,320	4,440	5,680	7,030	7,430		
8	2,230	1,710	2,000	5,860	6,240	6,050	5,190	3,080	4,040	5,860	7,030	7,430		
9	2,530	1,710	2,380	6,240	6,050	6,240	4,960	2,840	3,880	5,860	7,230	6,830		
10	2,760	1,710	2,500	7,030	5,860	6,630	4,680	2,680	3,880	5,500	7,430	6,680		
11	2,920	1,680	2,840	8,550	5,860	7,030	4,520	2,600	3,880	5,190	8,060	4,600		
12	2,920	1,680	3,080	10,600	5,860	7,630	4,360	2,530	4,120	4,770	8,800	4,040		
13	2,760	1,680	3,160	13,200	5,500	7,630	4,280	2,460	4,440	4,360	8,800	3,640		
14	2,530	1,740	3,080	14,400	5,330	7,430	4,200	2,380	4,770	3,960	8,060	3,480		
15	2,380	1,740	2,920	14,400	5,190	7,030	4,200	2,300	5,500	3,640	7,230	3,400		
16	2,230	1,710	2,680	13,600	5,070	6,630	4,120	2,230	6,630	3,320	6,630	3,320		
17	2,160	1,710	2,680	16,300	4,960	6,240	3,960	2,230	7,630	3,080	6,050	3,240		
18	2,080	1,780	2,600	22,500	4,770	5,860	3,880	2,760	8,300	2,920	6,050	3,160		
19	2,000	1,780	2,600	24,400	4,770	5,680	3,720	3,800	9,800	2,840	5,500	3,000		
20	1,930	1,860	2,680	23,100	4,680	5,500	3,640	4,770	11,800	2,760	6,430	3,080		
21	1,860	1,860	2,840	18,900	4,770	5,330	3,640	5,860	12,400	2,760	6,240	3,320		
22	1,860	1,930	3,240	16,800	4,960	5,500	3,640	6,630	12,800	2,760	6,240	3,560		
23	1,820	1,930	3,800	12,800	5,330	5,500	3,640	7,830	12,100	2,840	6,240	4,040		
24	1,820	2,000	4,200	10,900	5,860	5,500	3,640	8,800	11,200	2,920	6,630	4,360		
25	1,780	2,080	4,440	9,550	6,240	5,190	3,480	10,300	10,500	2,920	6,830	4,440		
26	1,780	1,930	4,600	8,550	7,030	5,070	3,320	12,100	9,050	3,000	6,430	4,440		
27	1,780	1,890	4,680	7,630	7,830	4,860	3,160	13,200	7,830	3,240	6,050	4,280		
28	1,780	1,890	4,680	7,030	8,800	4,680	3,080	13,200	7,030	3,400	6,240	4,360		
29	1,780	1,890	4,600	6,630	9,300	4,600	3,000	12,800	6,050	3,960	6,630	1,600		
30	1,780	1,890	4,440	6,630		4,440	3,000	12,100	5,330	4,440	7,030	4,860		
31	1,790		4,280	6,430		4,520		11,500		4,660	7,030			
Month							Maximum		Minimum		Mean		Per square mile	Run-off in inches
October							2,920		1,780		2,070		0.452	0.52
November							2,080		1,680		1,800		.363	.44
December							4,680		1,890		3,050		.666	.77
January							24,400		4,200		10,400		2.27	2.62
February							9,300		4,680		6,070		1.33	1.43
March							9,300		4,440		6,310		1.38	1.59
April							5,330		3,000		4,120		.900	1.00
May							13,200		2,230		5,650		1.23	1.42
June							12,800		3,880		7,510		1.64	1.83
July							5,860		2,760		4,090		.863	1.03
August							8,800		5,500		6,820		1.46	1.72
September							7,430		3,000		4,810		1.05	1.17
The year.							24,400		1,680		5,230		1.14	15.54

## Choctawhatchee River near Bruce, Fla.

(Continued)

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.	
1	5,070	5,860	5,330	18,300	13,200	11,500	20,700	11,500	3,960	4,120	12,800	4,200	
2	5,330	5,860	5,330	18,300	12,800	12,800	30,000	11,200	3,960	4,120	12,100	3,960	
3	5,500	5,860	5,330	17,300	12,100	10,600	30,000	10,900	3,960	4,360	10,600	3,960	
4	5,500	5,680	5,070	15,300	11,800	10,000	25,800	10,600	3,960	4,440	9,300	4,200	
5	5,190	7,830	4,960	15,600	11,800	9,550	21,300	10,500	3,800	4,600	8,300	4,440	
6	4,860	11,800	4,770	12,100	12,400	9,300	19,500	9,800	3,560	4,770	7,230	4,520	
7	4,770	15,300	4,680	11,200	14,000	9,800	19,500	9,300	3,400	4,770	6,630	4,680	
8	4,770	16,300	4,770	10,300	14,800	9,550	20,700	8,550	3,480	4,600	6,050	4,680	
9	4,960	14,000	4,770	9,550	14,800	9,550	21,900	8,050	3,560	4,120	5,860	4,680	
10	4,960	12,100	4,860	8,800	13,600	10,000	22,500	7,630	3,640	3,640	5,860	4,600	
11	4,770	10,900	5,070	8,300	12,800	11,200	24,400	7,230	3,720	3,480	6,050	4,520	
12	4,360	9,550	5,500	7,830	12,800	12,100	27,200	6,830	3,800	3,640	6,430	4,520	
13	3,960	8,550	5,860	7,830	13,200	12,800	27,900	6,430	3,880	3,720	6,050	4,520	
14	3,640	7,630	6,240	7,630	14,400	12,800	28,600	6,050	3,960	3,960	5,860	4,360	
15	3,480	6,830	7,430	7,630	14,800	11,900	31,500	5,860	3,960	4,280	5,330	4,040	
16	3,800	6,430	6,430	7,830	14,900	10,600	35,200	5,500	3,900	4,680	5,500	3,980	
17	4,280	5,860	6,430	8,550	14,400	9,800	39,100	5,190	3,480	4,770	5,860	3,720	
18	4,520	5,680	6,430	9,050	14,000	8,800	40,700	4,860	3,160	5,190	6,050	3,560	
19	4,770	5,330	6,430	9,300	13,200	8,300	38,300	4,680	3,000	5,860	6,050	3,400	
20	4,960	5,190	6,630	8,800	12,800	8,800	34,500	4,820	2,920	6,430	6,050	3,240	
21	5,190	5,190	7,030	8,050	12,400	8,800	30,800	4,440	2,840	7,430	5,680	3,080	
22	5,500	5,190	7,430	7,630	12,100	9,050	27,200	4,280	2,840	8,800	5,500	3,000	
23	5,330	5,500	7,830	7,230	11,800	10,900	23,100	4,120	2,760	11,500	5,500	2,920	
24	5,070	5,680	7,830	6,830	11,800	19,500	20,100	3,960	2,840	13,600	5,500	2,760	
25	4,600	5,660	7,830	6,830	11,800	34,500	17,500	3,880	2,840	14,400	5,860	2,600	
26	4,520	5,860	7,830	7,030	11,800	39,100	15,300	3,880	2,920	15,300	5,860	2,600	
27	4,680	5,500	8,050	7,230	11,800	39,100	14,000	3,960	3,240	15,800	5,860	2,600	
28	4,860	5,330	8,300	7,830	11,800	34,500	12,800	4,120	3,640	15,300	5,680	2,530	
29	5,070	5,190	9,300	8,800		31,500	12,100	4,040	3,960	14,400	5,190	2,460	
30	5,330	5,190	11,500	10,600		27,900	11,500	4,040	4,040	14,400	4,770	2,460	
31	5,680		15,300	12,100		23,100		3,960		14,000	4,040		
Month						Maximum		Minimum		Mean		Per square mile	Run-off in inches
October						5,680		3,480		4,820		1.05	1.21
November						15,300		5,190		7,530		1.64	1.83
December						15,300		4,680		6,790		1.48	1.71
January						18,300		6,830		9,920		2.17	2.50
February						14,800		11,800		13,000		2.84	2.96
March						38,100		9,500		15,700		3.43	3.95
April						40,700		11,500		24,800		5.41	6.04
May						11,500		3,880		6,440		1.41	1.63
June						4,040		2,760		3,500		.764	.85
July						15,800		3,490		7,560		1.65	1.90
August						12,800		4,040		6,560		1.43	1.65
September						4,680		2,460		3,690		.806	.90
The year.						40,700		2,460		9,150		2.00	27.13

## Choctawhatchee River near Bruce, Fla.

(Continued)

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,460	2,380	2,300	2,760	3,800	4,770	6,050	4,360	4,200	2,760	2,840	4,440
2	2,460	2,460	2,380	2,840	3,800	4,860	6,050	4,200	3,960	2,680	3,160	4,200
3	2,460	2,460	2,380	2,840	3,800	5,070	5,860	4,120	3,880	2,840	3,640	3,800
4	2,380	2,460	2,380	3,000	3,880	6,050	5,680	4,040	3,960	3,320	3,960	3,400
5	2,380	2,380	2,380	3,160	3,960	7,430	5,070	3,960	4,120	3,960	3,880	3,080
6	2,300	2,380	2,530	3,160	3,960	8,800	4,860	3,880	4,360	4,360	3,800	2,920
7	2,300	2,300	2,530	3,400	3,720	9,800	4,680	3,960	4,600	4,680	3,480	2,840
8	2,380	2,300	2,760	3,560	3,560	12,100	4,520	4,440	4,770	4,680	3,480	2,760
9	2,300	2,300	3,000	3,640	3,320	19,500	4,520	4,980	4,660	5,070	3,720	2,600
10	2,300	2,300	3,160	3,560	3,320	25,800	4,680	5,330	4,770	5,190	4,040	2,460
11	2,230	2,300	3,320	3,480	3,320	26,500	4,960	5,860	4,520	5,330	4,200	2,380
12	2,230	2,300	3,080	3,400	3,400	23,700	5,330	6,430	4,280	5,500	4,200	2,230
13	2,230	2,300	2,920	3,240	3,480	20,100	5,500	6,630	4,040	6,240	4,040	2,300
14	2,230	2,300	2,760	3,160	3,640	16,800	5,330	6,430	3,800	6,240	3,960	2,380
15	2,230	2,230	2,840	3,080	3,960	14,000	5,070	5,680	3,880	6,240	3,960	2,530
16	2,230	2,230	3,000	3,000	4,200	11,800	4,860	4,770	4,120	5,860	4,040	2,680
17	2,230	2,230	2,920	2,840	4,520	10,300	4,680	4,520	4,360	5,680	4,040	2,680
18	2,230	2,230	2,840	2,840	4,520	9,050	4,680	4,600	4,360	5,330	4,040	2,680
19	2,230	2,230	2,840	2,840	4,680	8,050	4,960	4,770	4,120	4,860	3,880	2,760
20	2,230	2,230	2,760	2,840	4,600	7,230	5,680	5,190	3,800	4,440	3,640	2,920
21	2,300	2,300	2,840	2,760	3,800	6,630	6,830	5,680	3,640	3,960	3,400	2,760
22	2,300	2,300	3,000	2,840	4,200	6,240	8,050	6,240	3,720	3,480	3,400	2,600
23	2,380	2,380	3,160	2,840	4,680	6,240	8,800	6,240	3,560	3,160	3,720	2,460
24	2,380	2,380	3,240	2,920	4,860	6,240	8,800	6,050	3,240	3,000	4,120	2,460
25	2,380	2,460	3,160	3,000	4,960	6,240	8,050	5,500	3,000	2,840	4,360	2,380
26	2,460	2,530	3,160	3,400	5,070	6,240	7,430	5,190	2,840	2,680	4,600	2,380
27	2,460	2,460	3,000	3,160	4,960	6,240	6,430	4,960	2,840	2,530	4,680	2,300
28	2,460	2,380	2,840	3,480	4,770	6,050	5,500	4,960	3,000	2,460	4,680	2,230
29	2,460	2,380	2,760	3,720		5,860	4,860	4,960	3,000	2,460	4,770	2,160
30	2,460	2,380	2,680	3,800		5,860	4,600	4,860	2,840	2,530	4,770	2,080
31	2,460		2,680	3,800		6,050	4,600	4,600		2,680	4,600	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				2,460	2,230	2,340	0.511		0.59			
November				2,530	2,230	2,340	.511		.57			
December				3,320	2,300	2,850	.616		.71			
January				3,800	2,760	3,170	.692		.80			
February				5,070	3,320	4,100	.895		.93			
March				26,500	4,770	10,500	2.25		2.59			
April				8,800	4,520	5,750	1.26		1.41			
May				6,630	3,880	5,080	1.11		1.28			
June				4,860	2,840	3,880	.847		.94			
July				6,240	2,460	4,100	.895		1.03			
August				4,770	2,840	3,970	.867		1.00			
September				4,440	2,080	2,730	.595		.66			
The year				26,500	2,080	4,220	.921		12.51			



## Yellow River near Holt, Fla.

Location.- Staff gage in sec. 15, T. 2 N., R. 25 W., at county highway bridge 2½ miles south of Holt. Zero of gage is 18.02 feet above mean sea level.

Drainage area.- 1,260 square miles.

Records available.- October 1933 to September 1934.

Extremes.- Maximum discharge recorded during period, 8,120 second-feet Mar. 6 (gage height, 8.20 feet); minimum recorded, 880 second-feet several days in November, December, January, September; minimum gage height recorded, 0.96 foot Nov. 17, 18, Sept. 30. Maximum stage known, about 25.4 feet in 1929 (discharge not determined).

Remarks.- Records fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		982	880	880	1,220	2,110	1,420	1,390	1,390	1,080	1,420	2,000
2		982	914	1,050	1,420	1,900	1,420	1,290	1,530	1,020	1,630	1,630
3		1,050	880	1,020	1,420	1,930	1,320	1,220	1,760	1,190	1,730	1,220
4		1,050	914	1,080	1,120	1,870	1,250	1,190	1,800	1,660	1,630	1,150
5		1,020	914	1,080	1,120	1,760	1,190	1,220	2,070	2,340	1,560	1,150
6		982	880	1,190	1,150	8,120	1,150	1,290	2,150	2,820	1,530	1,190
7		948	1,120	1,150	948	7,710	1,120	1,320	2,150	4,010	1,560	1,080
8		948	1,290	1,220	982	6,180	1,120	2,000	2,110	3,360	1,830	1,020
9		914	1,190	1,120	1,420	4,400	1,560	2,190	2,290	2,820	2,040	982
10		914	1,080	1,020	1,390	3,500	1,760	2,290	2,070	2,340	2,000	948
11		914	1,080	982	1,250	2,290	1,870	2,290	2,110	2,510	1,970	948
12		914	1,050	982	1,290	2,340	1,750	2,000	2,040	2,400	1,900	1,190
13		914	982	982	1,360	2,110	1,460	1,360	1,870	2,450	1,900	1,120
14		880	948	982	1,390	1,900	1,390	1,320	1,730	2,150	1,660	1,150
15		880	982	948	1,420	1,700	1,290	1,390	1,420	1,970	1,700	1,320
16		880	1,020	914	1,290	1,630	1,560	1,290	1,360	1,760	1,630	1,150
17		880	1,020	914	1,290	1,630	2,290	1,250	1,290	1,560	1,590	1,120
18		880	1,020	880	1,120	1,490	2,820	2,510	1,150	1,460	1,560	1,250
19		880	982	880	1,560	1,460	3,360	2,970	1,080	1,220	1,700	1,020
20		982	1,020	914	1,900	1,560	3,360	3,360	1,020	1,120	1,700	948
21		948	1,020	948	1,560	1,700	2,750	3,230	948	1,190	1,590	1,020
22		948	982	948	1,150	1,630	2,450	2,820	982	1,080	1,760	948
23		1,020	982	948	1,050	1,630	1,870	2,240	982	1,120	1,900	948
24		982	982	880	1,050	1,460	1,530	1,830	982	1,150	1,830	948
25	1,020	982	982	1,080	1,320	1,320	1,390	1,630	914	1,050	1,730	948
26	1,020	948	1,020	1,490	1,460	1,320	1,250	1,590	982	1,420	1,730	948
27	1,020	948	914	1,490	2,040	1,460	1,220	1,590	948	1,560	1,730	914
28	1,050	914	914	1,250	2,070	1,730	1,190	1,560	1,120	1,590	1,700	880
29	1,080	914	914	1,290		1,930	1,360	1,760	1,220	1,630	1,900	880
30	1,050	914	948	1,190		1,900	1,460	1,560	1,080	1,460	2,190	880
31	1,020		948	1,050		1,760		1,290		1,420	2,110	
Month						Maximum	Minimum	Mean	Per square mile	Run-off in inches		
October 25-31.						1,080	1,020	1,040	0.825	0.22		
November.						1,050	880	994	.749	.84		
December.						1,290	880	993	.787	.91		
January.						1,490	880	1,050	.841	.97		
February.						2,070	948	1,340	1.06	1.10		
March.						8,120	1,320	2,430	1.93	2.22		
April.						3,360	1,120	1,700	1.55	1.61		
May.						3,360	1,190	1,800	1.43	1.65		
June.						2,910	914	1,490	1.17	1.30		
July.						4,010	1,020	1,800	1.43	1.55		
August.						2,190	1,420	1,760	1.40	1.61		
September.						2,000	880	1,100	.873	.97		
The year.												

## Conecuh River near Andalusia, Ala.

Location.- Water-stage recorder in T. 3 N., R. 15 E., at Simmons Bridge,  $7\frac{1}{2}$  miles south-west of Andalusia.

Drainage area.- 1,300 square miles.

Records available.- August 1904 to December 1919, September 1929 to September 1934.

Average discharge.- 20 years, 1,810 second-feet.

Extremes.- Maximum discharge during year, 11,800 second-feet Mar. 9 (gage height, 24.63 feet); minimum, 47 second-feet Oct. 16 (gage height, 0.43 foot); minimum daily discharge, 50 second-feet Oct. 15.  
 1904-19, 1929-34: Maximum (estimated), 26,000 second-feet Mar. 18, 1913; minimum, 47 second-feet Oct. 2, 1932, and Oct. 16, 1933; minimum gage height, 0.39 foot July 7, 1930; minimum daily discharge, that of Oct. 15, 1933.  
 Maximum stage known, 47.64 feet Mar. 15, 1929 (discharge, 154,000 second-feet).

Remarks.- Records good. Flow regulated by power plants upstream.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	519	446	460	1,100	1,760	1,190	822	613	246	1,300	927
2	92	512	401	520	582	1,920	1,520	648	1,270	207	1,970	356
3	270	531	225	637	1,090	1,890	784	742	2,090	198	1,340	658
4	446	328	348	684	377	4,240	1,270	638	766	410	712	728
5	274	226	430	634	946	4,640	784	652	415	764	1,530	742
6	252	279	548	774	1,280	4,740	1,030	868	1,430	916	2,550	717
7	188	354	556	299	580	6,920	984	3,480	2,500	1,010	1,800	707
8	78	350	530	467	746	9,950	954	2,860	2,000	2,060	1,760	608
9	69	344	410	695	593	11,300	705	1,800	1,240	1,250	2,640	334
10	145	370	280	512	509	10,300	610	1,210	1,490	1,200	2,720	520
11	244	253	337	840	472	6,800	640	861	1,040	868	2,530	756
12	184	184	642	480	1,100	4,160	688	902	690	1,620	1,990	740
13	122	294	658	368	1,540	2,890	682	834	712	1,630	1,960	419
14	124	367	436	521	2,020	1,950	532	816	914	1,340	1,980	388
15	56	390	454	440	1,840	1,940	1,880	764	1,080	850	1,910	317
16	122	392	402	474	1,480	1,800	4,640	1,460	508	536	1,140	290
17	229	378	240	640	1,250	1,630	2,420	2,440	342	862	930	520
18	230	280	358	526	1,120	1,670	2,190	2,340	576	842	1,760	668
19	252	204	534	541	1,650	1,090	1,180	1,750	617	588	702	366
20	314	184	447	414	1,540	1,440	1,530	1,930	602	549	448	311
21	296	336	456	366	1,600	1,320	1,100	1,060	631	378	1,010	300
22	310	363	1,200	550	1,290	1,070	1,280	1,130	668	382	1,240	296
23	466	458	512	540	1,480	732	2,120	1,320	532	522	2,200	331
24	459	431	592	544	1,270	1,020	1,700	1,450	382	524	2,120	473
25	466	353	750	954	1,560	1,380	1,150	2,430	559	534	2,200	375
26	394	200	466	1,110	1,590	1,230	799	1,820	574	770	3,640	467
27	526	270	538	770	2,370	1,720	1,260	878	460	570	2,690	400
28	543	440	404	1,060	2,140	1,630	813	620	414	322	1,970	348
29	373	465	419	1,580		1,240	954	678	467	1,290	1,470	295
30	352	440	827	1,110		1,240	611	688	394	759	1,100	105
31	518		474	578		1,230		623		1,140	854	
Month	Maximum					Minimum			Mean		Per square mile	Run-off in inches
October	543					56			274		0.211	0.24
November	531					184			350		.269	.30
December	1,200					225			498		.383	.44
January	1,680					299			651		.501	.58
February	2,370					377			1,253		.964	1.00
March	11,300					732			3,124		2.40	2.77
April	4,640					532			1,267		1.975	1.09
May	3,480					620			1,301		1.00	1.15
June	2,600					342			869		.863	.75
July	2,060					198			811		.624	.72
August	3,640					448			1,747		1.34	1.54
September	927					105			482		.371	.41
The year	11,300					56			1,054		.811	10.99

## Coosa River at Childersburg, Ala.

Location.- Water-stage recorder in T. 20 S., R. 30 E., at Central of Georgia Railway bridge 1 mile northwest of Childersburg. Zero of gage is 421.00 feet above mean sea level.

Drainage area.- 3,590 square miles.

Records available.- February 1914 to September 1934.

Average discharge.- 17 years (1917-34), 14,300 second-feet.

Extremes.- Maximum discharge during year, 92,400 second-feet Mar. 4 (gage height, 22.4 feet); minimum, 2,360 second-feet Nov. 4, 16, 17 (gage height, 1.41 feet).  
1914-34: Maximum discharge, 121,000 second-feet July 11, 1916; maximum gage height, 24.84 feet Mar. 16, 1929; minimum discharge, 1,300 second-feet in September 1925.

Remarks.- Records good. Records collected by the Alabama Power Co., under general supervision of the U. S. Geological Survey, in connection with a Federal Power Commission project.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,690	2,460	2,770	4,530	4,650	39,000	16,700	6,250	3,810	4,530	10,000	8,180
2	3,110	2,460	2,660	5,990	5,250	36,000	13,000	6,250	3,810	6,650	11,000	7,050
3	3,110	2,460	2,770	7,050	5,250	56,700	10,800	6,650	3,930	9,860	10,300	5,990
4	3,000	2,360	2,770	6,780	5,370	87,500	9,700	6,650	5,370	7,330	7,750	5,490
5	3,450	2,770	3,110	8,470	5,730	88,500	8,910	6,250	7,470	6,650	5,610	4,690
6	3,570	2,890	3,220	9,380	5,860	74,000	8,320	5,990	13,300	6,120	4,650	4,410
7	3,330	2,770	3,330	20,800	5,490	62,600	7,890	5,610	18,200	5,990	4,410	4,170
8	3,110	2,560	3,810	31,700	5,010	57,100	7,750	5,370	26,100	7,750	8,470	4,050
9	2,890	2,560	3,810	31,700	4,650	54,200	7,470	5,130	24,100	7,890	10,000	4,290
10	2,660	2,560	3,570	28,700	4,410	52,200	7,050	5,130	19,300	7,610	7,610	4,290
11	2,560	2,660	3,220	23,200	4,290	50,200	6,920	5,130	24,900	7,190	5,490	3,930
12	2,560	2,660	3,110	17,400	4,770	46,700	6,780	5,250	38,500	7,050	6,920	3,570
13	2,460	2,560	3,220	13,900	5,730	34,000	6,650	4,770	41,900	9,380	14,500	3,330
14	2,460	2,560	3,110	11,400	6,250	17,800	6,250	4,650	24,900	7,190	11,000	3,220
15	2,460	2,460	3,000	10,300	6,520	12,100	5,990	4,770	17,400	6,120	9,060	3,220
16	2,460	2,360	3,000	9,540	6,920	10,500	5,990	4,890	12,100	5,990	7,190	4,050
17	2,560	2,360	3,000	8,610	6,750	9,700	5,860	5,010	9,540	5,610	6,390	5,010
18	2,770	2,460	3,000	7,610	6,120	9,060	6,120	6,250	8,610	4,890	5,990	4,650
19	2,660	2,460	3,110	6,780	5,860	9,380	7,190	9,860	7,750	4,410	7,330	3,570
20	2,660	2,460	3,110	6,250	5,610	10,300	8,470	9,220	7,190	4,410	8,610	3,330
21	2,770	2,560	3,450	5,860	5,250	11,400	7,890	7,610	8,320	4,530	16,900	3,220
22	3,110	3,330	3,450	5,490	5,130	15,200	7,750	6,520	9,220	4,290	14,900	3,110
23	3,000	3,690	3,330	5,370	5,130	18,900	7,470	5,610	7,610	3,930	14,900	3,000
24	2,890	3,450	3,690	5,130	4,890	18,500	7,330	5,250	6,390	3,810	11,100	2,890
25	2,660	3,330	3,810	5,010	5,730	15,600	6,780	5,010	5,610	3,690	9,380	2,770
26	2,560	4,050	3,570	4,890	35,800	12,600	6,520	5,010	5,130	3,810	8,180	2,770
27	2,560	4,170	3,330	4,770	41,900	16,700	6,520	5,250	4,890	4,410	7,890	3,110
28	2,560	3,570	3,450	4,770	40,000	20,800	7,470	4,770	4,650	5,370	13,500	3,450
29	2,560	3,220	3,330	4,530		21,600	7,610	4,290	4,410	6,650	17,000	3,330
30	2,560	3,000	3,930	4,410		21,200	6,920	4,050	4,410	6,780	12,800	3,220
31	2,460		4,770	4,290		20,000		3,810		8,760	9,700	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	3,570			2,460			2,791			0.333	0.38	
November	4,170			2,360			2,841			.339	.38	
December	4,770			2,660			3,316			.395	.46	
January	31,700			4,290			10,470			1.25	1.44	
February	41,900			4,290			9,084			1.08	1.12	
March	88,500			9,060			32,650			3.39	4.48	
April	16,700			5,860			7,869			.938	1.05	
May	9,860			3,810			5,086			.678	.78	
June	41,900			3,810			12,630			1.51	1.68	
July	9,860			3,690			6,085			.725	.84	
August	18,900			4,410			9,695			1.16	1.34	
September	8,160			2,770			4,052			.483	.54	
The year.	88,500			2,360			8,952			1.07	14.49	

Coosa River at Lock 18, near Wetumpka, Ala.

Location.- Water-stage recorder in sec. 22, T. 19 N., R. 18 E., half a mile downstream from Lock 18 dam site and 7 miles above Wetumpka. Zero of gage is 179.65 feet above mean sea level.

Drainage area.- 10,200 square miles.

Records available.- July 1912 to September 1914, December 1925 to September 1934.

Extremes.- Maximum discharge during year, 140,000 second-feet Mar. 4 (gage height, 29.0 feet); minimum, 70 second-feet at times (gage height, 1.95 feet); minimum daily discharge, 70 second-feet Dec. 9.  
1912-14, 1925-34: Maximum discharge, 207,000 second-feet Mar. 15, 1929 (gage height, 38.6 feet); minimum, 70 second-feet at times in 1930-34 (gage height, 1.95 feet); minimum daily discharge, 70 second-feet Oct. 3, 1932, and Dec. 9, 1933.

Remarks.- Records good below 40,000 second-feet, fair above. Flow almost completely regulated during low and medium stages by hydroelectric plants at Lock 12 and Mitchell Dam. Records collected by the Alabama Power Co., under general supervision of the U. S. Geological Survey, in connection with a Federal Power Commission project.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,950	4,120	1,810	7,300	4,260	45,200	20,100	9,930	4,610	6,960	12,800	12,000
2	5,960	3,790	119	5,070	4,190	37,800	23,200	9,660	4,410	8,500	13,500	7,060
3	2,890	2,820	1,350	7,760	4,380	78,800	18,400	9,090	4,580	950	9,680	9,610
4	1,180	134	3,690	8,840	5,780	135,000	17,900	7,910	7,890	4,810	8,850	11,500
5	1,810	2,190	2,930	8,290	5,930	115,000	15,200	6,430	7,500	9,240	7,990	6,480
6	1,570	5,450	6,450	5,930	5,820	96,200	15,300	5,810	8,440	8,790	11,600	6,560
7	82	4,200	647	7,600	5,640	75,000	8,460	10,600	8,500	8,870	10,800	6,280
8	3,660	3,060	260	27,300	6,220	60,400	9,840	8,960	8,290	6,580	13,800	4,910
9	5,800	3,870	70	36,000	6,820	61,900	11,300	7,210	28,400	10,800	9,410	6,430
10	1,770	3,740	4,560	30,700	3,990	55,300	8,130	5,190	24,400	11,500	7,540	6,530
11	3,200	120	7,330	29,100	6,940	53,400	6,770	5,010	23,300	11,800	7,530	4,350
12	4,530	2,240	4,390	22,900	8,290	49,800	7,050	4,300	41,500	10,800	6,600	3,750
13	4,260	4,200	4,980	16,800	7,470	43,700	7,080	5,930	56,500	9,920	12,500	4,410
14	584	2,460	5,210	14,200	7,900	27,600	6,010	6,800	33,600	6,990	13,000	3,870
15	4,180	3,790	4,820	16,800	7,770	20,000	5,930	7,160	24,200	9,140	12,900	2,380
16	7,070	3,260	144	14,700	7,860	18,700	8,350	9,740	17,400	8,800	12,500	7,810
17	4,280	2,880	4,650	15,600	5,820	11,700	6,400	9,560	14,000	7,080	8,160	5,580
18	4,560	1,570	5,540	13,900	6,280	8,180	7,180	11,700	14,200	7,140	7,380	3,340
19	3,100	2,410	4,590	14,400	7,240	12,700	8,770	8,700	13,900	3,900	6,600	3,720
20	2,060	4,030	5,080	10,500	6,870	13,700	11,300	6,500	12,300	2,780	13,400	3,640
21	115	3,590	3,450	5,020	6,960	14,700	8,030	12,100	12,100	373	11,300	3,960
22	1,940	5,980	3,810	12,700	7,180	13,500	8,690	7,780	10,600	5,520	18,100	3,500
23	3,390	5,130	1,411	13,000	6,460	16,500	10,500	9,650	7,780	7,220	19,500	492
24	3,190	3,920	6,200	13,300	5,710	15,500	9,930	8,270	6,970	5,440	19,000	6,680
25	2,780	123	7,050	12,700	4,810	16,800	10,200	7,170	8,350	4,930	16,000	6,810
26	3,200	2,050	9,170	12,600	15,900	20,600	9,460	4,210	5,460	2,560	9,040	7,760
27	2,290	5,080	8,850	9,360	48,200	23,500	8,570	5,780	6,940	1,040	16,400	6,730
28	121	5,680	4,640	6,480	43,100	27,300	6,830	8,670	5,250	1,460	13,800	5,400
29	2,150	4,880	4,470	6,420		25,100	5,440	5,580	2,070	5,640	17,200	875
30	3,400	137	4,510	6,260		25,000	11,400	5,040	158	12,100	19,200	72
31	3,080		5,060	6,560		18,800		4,660		12,300	17,900	
Month	Maximum					Minimum	Mean	Per square mile		Run-off in inches		
October	7,070					82	3,031	0.297		0.34		
November	5,980					120	3,223	.316		.35		
December	9,170					70	4,054	.397		.46		
January	36,000					5,020	13,450	1.32		1.52		
February	48,200					3,990	9,418	.923		.96		
March	135,000					8,180	39,840	3.91		4.51		
April	23,200					5,440	10,390	1.02		1.14		
May	12,100					4,210	7,570	.742		.86		
June	56,500					158	14,110	1.38		1.54		
July	12,300					373	6,898	.676		.78		
August	19,600					6,600	12,390	1.21		1.40		
September	12,000					72	5,413	.531		.59		
The year	135,000					70	10,860	1.06		14.45		

## Alabama River near Montgomery, Ala.

Location.- Water-stage recorder in T. 17 N., R. 17 E., at highway bridge 4 miles above Autauga Creek and 6 miles northwest of Montgomery.

Drainage area.- 15,100 square miles.

Records available.- October 1927 to September 1934. At Montgomery from January 1899 to December 1903.

Extremes.- Maximum discharge during year, 111,000 second-feet Mar. 6 (gage height, 39.4 feet); minimum, 5,660 second-feet May 26 (gage height, 0.8 foot); minimum daily discharge, 6,060 second-feet May 27.  
1899-1903, 1927-34: Maximum discharge, 209,000 second-feet Mar. 17, 1929 (gage height, 59.6 feet); minimum, 4,840 second-feet Nov. 20, 1931 (gage height, 0.37 foot); minimum daily discharge, 5,120 second-feet Nov. 20, 1931.

Remarks.- Records good. Flow regulated by hydroelectric plants on Tallapoosa and Coosa Rivers. Records collected by the Alabama Power Co., under general supervision of the U. S. Geological Survey, in connection with a Federal Power Commission project.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,200	11,800	9,050	8,640	9,850	46,000	21,400	11,700	6,890	8,450	15,200	19,200
2	10,700	12,600	8,850	8,270	10,500	42,900	22,500	12,000	7,030	10,700	16,400	11,600
3	9,050	12,400	8,450	9,650	9,050	45,700	22,800	10,800	6,890	9,450	15,000	8,270
4	10,900	11,300	7,900	10,300	7,900	79,000	21,400	11,100	7,630	10,100	10,900	9,850
5	9,450	9,250	9,850	10,500	7,210	101,000	18,500	10,600	8,530	7,550	10,700	11,600
6	10,300	9,450	11,600	9,050	7,210	110,000	16,600	7,470	9,560	9,850	10,100	10,700
7	10,100	11,800	11,900	7,730	8,270	109,000	14,600	9,980	10,600	10,700	12,200	11,800
8	8,450	12,200	8,450	14,200	8,450	90,300	10,800	13,400	9,340	10,100	14,200	10,500
9	9,250	11,300	8,640	29,800	9,250	87,400	12,000	12,000	16,700	9,250	15,000	9,250
10	9,250	12,200	7,550	33,400	9,050	76,400	10,600	8,720	26,200	12,600	10,300	9,650
11	10,300	11,600	9,250	31,200	7,210	66,700	8,920	7,800	23,700	15,200	10,300	7,900
12	12,200	8,450	8,840	29,000	9,450	57,800	8,340	8,160	26,800	14,700	9,250	11,100
13	13,300	8,840	10,900	21,800	10,500	51,900	8,160	7,320	43,500	14,500	10,900	11,600
14	12,600	10,100	11,600	16,200	11,300	41,800	7,800	7,030	46,800	11,300	15,700	12,000
15	9,450	10,500	11,600	17,400	12,000	29,200	7,630	7,980	34,400	9,250	16,400	11,600
16	11,100	11,300	11,100	16,400	11,800	22,600	8,160	10,600	24,500	10,300	15,700	12,200
17	11,600	11,100	7,900	18,200	10,900	20,600	9,770	13,600	18,200	10,500	12,800	11,300
18	13,800	10,700	9,050	16,700	8,450	12,900	9,340	16,600	15,000	12,400	10,900	9,050
19	13,500	9,850	8,640	17,200	8,270	12,000	9,770	17,200	15,200	11,600	10,900	11,100
20	12,000	9,050	9,850	14,200	8,840	15,600	14,300	11,500	14,500	11,800	11,300	11,100
21	11,100	10,300	10,500	9,250	9,450	17,200	15,600	10,200	15,000	10,300	15,000	11,600
22	9,450	12,200	9,850	7,900	9,650	16,300	12,900	11,300	15,500	9,250	17,700	11,600
23	8,840	13,300	8,640	14,700	10,500	17,700	12,200	8,720	11,300	10,700	20,200	10,900
24	10,700	12,800	7,580	17,200	9,250	17,700	12,700	10,200	8,840	9,450	22,900	9,450
25	11,800	11,800	9,850	15,700	7,900	17,700	12,700	9,340	8,080	13,300	19,200	12,600
26	12,200	8,080	8,450	14,700	9,050	18,200	11,500	7,320	9,250	12,800	14,200	14,700
27	11,800	8,450	10,500	14,500	30,400	24,200	10,600	6,060	12,000	10,700	12,800	15,700
28	10,900	11,600	8,640	10,700	47,400	28,700	9,770	6,890	13,800	9,250	16,400	15,000
29	8,840	13,500	8,270	7,900	29,000	7,800	7,630	12,200	9,450	16,200	13,100	
30	8,840	12,000	7,550	7,900	27,900	7,800	7,180	9,250	12,600	20,800	9,650	
31	10,500		8,080	10,100	26,200		7,030		14,700	21,300		
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	13,800			8,460			10,790			0.715	0.82	
November	13,500			8,080			10,990			.728	.81	
December	11,800			7,380			9,328			.618	.71	
January	33,400			7,730			15,170			1.000	1.15	
February	47,400			7,210			11,400			.755	.79	
March	110,000			12,000			43,850			2.80	3.34	
April	22,800			7,350			12,370			.332	.35	
May	17,200			6,060			9,217			.657	.76	
June	46,800			6,890			16,240			1.08	1.20	
July	15,200			7,550			11,060			.732	.84	
August	22,900			9,250			14,580			.966	1.11	
September	19,200			7,900			11,620			.763	.85	
The year	110,000			6,060			14,830			.982	13.31	

## Alabama River at Selma, Ala.

Location.- Water-stage recorder in T. 17 N., R. 10 E., in Selma, half a mile below Louisville & Nashville Railroad bridge.

Drainage area.- 17,100 square miles.

Records available.- January 1899 to December 1913, June 1928 to September 1974.

Average discharge.- 19 years (1900-1913, 1928-34), 26,500 second-feet.

Extremes.- Maximum discharge during year, 108,000 second-feet Mar. 8 (gage height, 41.29 feet); minimum, 6,840 second-feet May 28 (gage height, 1.65 feet); minimum daily discharge, 6,970 second-feet May 28.

1899-1913, 1928-34: Maximum discharge, 204,000 second-feet Mar. 19, 1929 (gage height, 55.52 feet); minimum, 2,660 second-feet Nov. 1, 1904 (gage height, -2.20 feet); minimum daily discharge, 3,300 second-feet Oct. 9 to Nov. 3, 1904.

Maximum stage known, 57.0 feet Apr. 8, 1886 (discharge, 221,000 second-feet).

Remarks.- Records good except those for Feb. 17-24 (gage heights estimated), which are fair. Flow regulated by power plants on Coosa and Tallapoosa Rivers.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,200	9,960	11,400	8,190	9,510	47,800	26,900	9,960	7,910	9,960	16,700	21,200
2	11,400	11,200	9,560	8,760	9,960	48,800	22,800	12,300	8,470	9,060	16,500	18,600
3	10,600	11,900	9,510	8,910	10,300	48,800	23,100	12,600	10,100	10,600	16,700	12,800
4	9,360	11,800	8,610	9,660	9,360	62,200	22,800	11,900	9,360	10,400	16,600	9,510
5	10,100	10,900	8,190	10,300	8,330	81,000	21,500	10,800	9,810	10,400	12,100	10,600
6	9,510	9,510	9,510	10,800	7,830	98,200	18,600	10,100	10,400	8,910	10,900	11,100
7	9,660	9,360	11,400	11,100	7,360	106,000	16,700	11,100	12,100	9,960	10,900	10,800
8	9,660	10,900	11,200	9,910	8,050	107,000	14,500	12,100	12,800	10,900	12,400	11,600
9	8,760	11,400	8,910	14,300	8,470	100,000	11,800	14,100	11,800	10,900	15,000	10,900
10	8,910	11,100	8,470	29,300	9,210	90,500	12,300	12,600	17,500	10,600	15,200	9,960
11	9,210	11,400	8,050	32,900	9,060	79,000	11,200	10,600	15,800	13,000	12,300	9,960
12	9,810	10,900	8,760	31,300	8,190	69,000	9,910	9,360	15,800	14,800	11,200	8,910
13	11,400	8,910	9,060	28,100	10,300	60,000	9,210	9,910	34,200	14,800	10,300	10,800
14	12,300	8,760	10,800	24,100	11,800	52,800	8,910	9,190	45,800	14,500	11,600	11,600
15	11,800	9,510	11,100	16,900	11,900	42,200	8,760	7,770	46,500	11,900	15,200	11,800
16	9,810	9,960	11,200	15,900	11,900	31,300	8,910	9,510	38,500	9,810	16,100	11,400
17	10,600	10,600	10,600	16,600	11,400	23,900	9,660	14,600	28,400	10,300	15,200	12,100
18	11,400	10,800	8,760	16,500	10,600	20,000	10,600	16,700	20,000	10,600	13,700	11,600
19	12,800	10,300	9,510	16,100	9,060	14,100	11,100	18,800	16,300	11,800	14,100	9,660
20	12,800	9,660	9,510	16,100	8,330	13,300	16,500	17,600	16,200	11,400	13,900	10,800
21	11,800	9,210	10,100	14,600	9,210	15,900	19,000	13,000	14,600	11,200	14,500	11,100
22	10,900	9,960	10,300	11,100	9,960	17,200	18,900	11,400	14,800	10,300	17,600	11,400
23	9,810	11,600	9,960	9,060	10,400	16,700	15,200	11,900	14,800	9,510	20,800	11,600
24	9,360	12,600	8,910	12,800	10,600	17,600	13,900	10,600	12,100	10,300	24,100	11,100
25	10,600	12,400	7,910	15,600	9,960	16,900	14,100	10,600	9,660	9,960	25,500	10,300
26	11,200	11,400	9,360	15,000	10,900	17,400	13,900	10,100	8,910	12,300	21,800	12,400
27	11,600	8,760	8,760	14,500	15,900	21,800	12,600	8,760	9,510	12,300	16,900	14,100
28	11,200	8,470	9,660	13,700	37,000	29,600	11,900	8,970	11,400	10,900	13,900	14,800
29	10,600	12,800	9,060	10,800		33,200	11,400	7,490	13,000	12,400	16,500	14,300
30	9,210	12,600	8,330	8,330		32,900	9,960	8,470	12,100	13,500	17,400	13,000
31	8,910		7,910	8,050		31,000		7,910		15,800	26,800	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	12,800			8,760			10,530			0.616	0.71	
November	12,600			8,470			10,550			.617	.69	
December	11,400			7,910			9,473			.554	.64	
January	32,900			8,050			15,100			.888	1.02	
February	37,000			7,360			10,870			.636	.66	
March	107,000			13,360			46,580			2.72	3.14	
April	26,900			8,760			14,540			.850	.95	
May	18,800			6,970			11,190			.654	.75	
June	46,500			7,910			17,590			1.03	1.15	
July	15,600			8,910			11,380			.665	.77	
August	25,600			10,300			15,620			.913	1.05	
September	21,200			8,910			11,990			.701	.78	
The year	107,000			6,970			15,510			.907	12.31	

## MOBILE RIVER BASIN

Alabama River near Coy, Ala.

Location.- Water-stage recorder in T. 11 N., R. 6 E., at St. Louis-San Francisco Railway Bridge 3 miles north of Coy.

Drainage area.- 21,200 square miles.

Records available.- July 1928 to September 1934 (discontinued).

Extremes.- Maximum discharge during year, 118,000 second-feet Mar. 10 (gage height, 41.92 feet); minimum (estimated), 9,040 second-feet May 31 (gage height, 4.2 feet).  
1928-34: Maximum discharge, 289,000 second-feet Mar. 23, 1929 (gage height, 55.83 feet); minimum, 5,800 second-feet Nov. 3-4, 1931 (gage height, 2.00 feet).

Remarks.- Records fair. Discharge estimated May 12-19, May 29 to June 3, and Sept. 6-14. Flow regulated by power plants on Coosa and Tallapoosa Rivers.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,300	10,200	12,600	9,720	10,600	43,200	38,500	16,000	9,400	14,200	25,100	22,900
2	12,700	10,400	13,300	9,550	10,900	55,000	34,100	14,000	9,800	13,100	24,400	23,500
3	12,400	11,700	12,000	10,100	12,700	61,700	29,700	14,600	9,700	11,500	22,000	22,700
4	12,600	12,600	10,900	10,900	13,100	76,400	27,800	15,400	12,600	12,200	20,200	18,000
5	11,500	13,100	10,400	11,700	12,700	84,900	27,100	15,200	12,400	12,900	19,000	14,000
6	11,100	12,600	9,720	13,300	11,500	94,700	25,900	15,200	12,200	12,900	16,400	13,000
7	10,900	11,500	10,100	20,000	10,400	104,000	24,000	17,200	13,300	12,000	14,400	12,800
8	10,600	10,600	11,500	20,200	9,720	110,000	22,400	19,000	15,200	12,400	13,600	12,500
9	10,800	11,100	13,100	18,000	9,720	116,000	20,200	19,200	16,400	13,300	15,400	12,300
10	10,200	12,200	12,200	19,400	10,200	118,000	17,200	18,800	17,600	14,200	19,400	12,700
11	9,720	12,400	10,800	28,000	11,500	115,000	16,000	17,800	22,000	13,800	21,500	12,000
12	9,720	12,600	10,100	32,600	14,600	108,000	15,200	16,500	28,500	14,800	20,000	11,500
13	10,100	12,600	9,720	32,600	16,200	97,000	13,600	15,000	31,200	16,800	17,800	10,500
14	11,300	11,300	10,200	30,700	16,000	84,000	12,400	15,500	37,200	18,000	15,800	11,500
15	12,700	10,100	10,900	26,800	16,200	70,900	12,000	14,000	47,300	17,400	15,000	12,200
16	13,300	10,100	12,000	22,400	16,000	57,800	12,400	14,100	51,100	16,000	16,600	12,900
17	12,400	10,800	12,600	19,600	15,600	44,700	12,600	15,000	47,300	13,600	18,200	13,100
18	11,500	11,500	12,700	18,900	15,200	34,300	12,700	22,000	38,500	12,200	18,200	13,100
19	12,200	11,800	13,500	18,800	14,600	28,000	14,200	25,000	29,200	12,000	19,000	13,300
20	13,500	11,800	13,600	18,800	13,500	23,300	23,500	23,500	22,900	12,600	19,000	12,000
21	14,000	11,300	13,600	18,600	12,400	20,700	29,500	22,200	19,600	13,100	21,800	11,700
22	13,800	10,800	13,600	18,000	12,200	21,300	26,600	18,900	18,200	12,900	25,300	12,000
23	13,300	10,800	13,300	15,600	12,700	22,200	23,700	15,400	17,600	12,600	25,500	12,600
24	12,600	11,800	12,700	12,600	13,600	22,000	20,900	15,600	17,400	11,500	26,200	13,100
25	11,300	13,300	11,800	13,600	14,800	21,800	18,800	16,000	15,900	11,500	28,500	12,900
26	11,100	13,800	10,400	17,000	19,600	22,200	18,200	14,400	13,300	11,700	29,000	12,000
27	12,000	13,500	10,200	18,400	27,300	29,500	17,600	13,100	11,500	12,400	26,400	12,600
28	12,600	11,700	10,800	17,800	32,100	38,000	19,000	11,700	10,900	13,800	22,400	14,400
29	12,700	10,100	10,800	17,000		40,600	19,400	10,500	11,700	14,000	18,800	15,800
30	12,200	10,600	11,100	14,800		41,300	18,000	9,700	13,600	16,600	19,600	16,200
31	11,100		10,200	12,200		41,100		9,100		22,200	21,100	
Month	Maximum					Minimum	Mean	Per square mile		Run-off in inches		
October	14,000					9,720	11,910	0.562		0.65		
November	13,800					10,100	11,620	.546		.61		
December	13,600					9,720	11,630	.549		.65		
January	32,600					9,550	18,310	.864		1.00		
February	32,100					9,720	14,490	.685		.71		
March	118,000					20,700	59,540	2.81		3.24		
April	38,500					12,000	20,770	.980		1.09		
May	25,000					9,100	16,080	.758		.87		
June	51,100					9,400	21,110	.996		1.11		
July	22,200					11,500	13,800	.651		.75		
August	29,000					13,600	20,490	.967		1.11		
September	23,500					10,500	13,980	.659		.74		
The year.	118,000					9,100	19,550	.922		12.51		

## Alabama River at Claiborne, Ala.

Location.- Water-stage recorder in sec. 25, T. 7 N., R. 5 E., at toll bridge in Claiborne. Zero of gage is at mean sea level.

Drainage area.- 22,000 square miles.

Records available.- April 1930 to September 1934.

Extremes.- Maximum discharge during year, 122,000 second-feet Mar. 11 (gage height, 42.26 feet); minimum, 9,430 second-feet May 31 (gage height, 10.33 feet).  
1930-34: Maximum discharge, 172,000 second-feet Jan. 6, 1933 (gage height, 47.96 feet); minimum, 6,200 second-feet Nov. 3, 4, 1931; minimum gage height, 8.00 feet Nov. 4, 1931.

Remarks.- Records good. Flow regulated by power plants on Coosa and Tallapoosa Rivers.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,800	11,500	11,800	10,900	12,900	37,100	39,700	18,200	9,920	13,800	22,800	21,700
2	13,600	10,900	13,300	10,900	12,000	47,400	36,800	16,100	9,920	14,000	24,100	22,800
3	13,100	11,400	13,200	10,800	12,700	60,000	33,000	15,200	10,100	13,100	22,800	22,600
4	13,100	12,400	12,200	11,400	13,600	76,800	30,000	15,600	11,600	12,900	21,100	20,700
5	12,700	13,100	11,500	12,300	13,800	86,200	28,500	15,800	12,700	13,600	19,800	17,300
6	11,800	13,200	10,900	13,100	13,100	93,600	27,300	16,500	12,700	13,800	18,000	14,200
7	11,600	12,700	10,800	17,500	12,000	102,000	25,900	17,700	13,100	13,400	16,100	13,100
8	11,400	11,800	11,300	20,200	11,100	109,000	25,000	19,000	14,500	13,100	14,700	12,900
9	11,300	11,400	12,700	19,400	10,600	115,000	23,200	19,800	15,800	13,600	14,500	12,700
10	11,100	12,000	13,100	18,600	10,900	120,000	20,200	19,200	16,700	14,500	17,100	13,100
11	10,600	12,700	12,200	23,700	12,500	122,000	17,800	19,000	18,600	14,700	19,600	12,700
12	10,400	12,900	11,300	29,700	17,700	121,000	16,700	18,200	24,100	14,700	20,200	12,200
13	10,600	12,900	10,600	31,700	19,600	115,000	15,400	18,100	29,300	15,800	19,000	11,400
14	11,100	12,500	10,600	31,200	19,200	105,000	14,000	14,300	32,000	17,100	17,300	11,100
15	12,200	11,400	10,900	29,000	18,400	90,300	13,100	14,700	39,600	17,500	15,600	11,600
16	13,300	10,800	11,800	25,700	17,700	74,600	13,200	14,900	47,400	16,900	15,600	12,700
17	13,400	10,900	12,500	22,100	16,900	58,500	13,400	15,800	48,100	15,400	16,900	13,300
18	12,500	11,500	13,100	20,200	16,500	44,200	13,400	21,500	41,800	13,600	17,700	13,200
19	12,300	12,000	14,700	19,400	16,500	35,600	13,600	25,700	34,200	12,500	18,000	13,400
20	13,100	12,300	15,400	19,400	15,900	30,400	17,900	24,500	27,300	12,400	18,600	13,100
21	14,000	12,200	14,900	19,200	14,700	28,500	25,900	23,400	22,600	12,900	19,600	12,000
22	14,500	11,800	14,500	19,000	14,000	24,100	27,600	21,300	19,600	13,100	23,400	12,000
23	14,200	11,400	14,200	17,700	14,000	23,900	25,500	18,200	18,200	12,900	24,800	12,400
24	13,600	11,600	13,800	15,400	14,500	23,700	23,000	16,500	17,500	12,300	25,500	12,900
25	12,700	12,700	13,100	14,300	15,200	23,000	20,700	16,600	16,900	11,600	26,600	13,100
26	11,800	13,800	11,800	16,000	18,600	23,000	19,200	15,900	15,200	11,600	28,000	12,700
27	12,200	14,000	11,100	17,900	25,200	28,000	18,400	14,700	13,100	11,800	27,300	12,500
28	12,700	13,400	11,100	18,400	30,500	35,500	18,800	13,400	11,500	12,900	25,000	13,300
29	13,100	11,800	11,300	17,900	39,700	39,700	20,200	11,800	11,300	13,800	21,900	14,700
30	13,100	10,900	11,500	16,700	40,900	40,900	19,600	10,300	12,500	14,900	20,200	15,600
31	12,500		11,300	14,700	40,900	40,900		9,590		18,600	20,400	
Month	Maximum					Minimum	Mean	Per square mile		Run-off in inches		
October	14,500					10,400	12,500	0.568		0.65		
November	14,000					10,800	12,130	.561		.61		
December	15,400					10,600	12,340	.561		.65		
January	31,700					10,800	18,850	.657		.99		
February	30,500					10,600	15,730	.715		.74		
March	122,000					23,000	63,710	2.60		3.34		
April	39,700					13,100	21,900	.695		1.11		
May	25,700					9,590	17,080	.776		.89		
June	48,100					9,920	20,890	.850		1.06		
July	18,600					11,600	13,950	.634		.73		
August	28,000					14,500	20,390	.627		1.07		
September	22,800					11,100	14,230	.647		.72		
The year.	122,000					9,590	20,380	.626		12.56		



## Tallapoosa River at Wadley, Ala.

Location.- Staff gage in sec. 12, T. 22 S., R. 10 E., in Wadley. Zero of gage is 600.78 feet above mean sea level.

Drainage area.- 1,660 square miles.

Records available.- September 1923 to September 1934.

Average discharge.- 11 years, 2,400 second-feet.

Extremes.- Maximum discharge during year, 27,400 second-feet Mar. 4 (gage height, 17.5 feet); minimum, 380 second-feet Oct. 11-16 (gage height, 2.8 feet).  
1923-34: Maximum discharge, 46,900 second-feet Jan. 18, 1925 (gage height, 26.3 feet); minimum, 60 second-feet on 8 days during September 1925 and Oct. 2, 1931 (gage height, 2.2 feet).

Remarks.- Records good. Slight diurnal regulation during extremely low water caused by small mills upstream. Records collected by Alabama Power Co., under general supervision of the U. S. Geological Survey, in connection with a Federal Power Commission project.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	500	500	620	860	920	6,300	1,480	2,900	740	1,460	3,390	1,110
2	1,110	500	620	2,410	1,540	3,030	1,360	2,840	740	2,590	1,600	860
3	3,990	560	680	1,920	1,540	6,300	1,360	2,220	2,720	3,690	1,240	600
4	1,420	500	990	1,300	1,300	26,900	1,240	1,790	5,640	2,100	800	740
5	860	620	990	1,110	1,110	18,100	1,240	1,480	6,640	1,540	680	740
6	620	680	990	1,110	990	13,900	1,300	1,540	7,010	1,460	500	680
7	620	620	990	5,310	990	7,730	1,600	1,480	7,010	1,170	2,410	620
8	500	620	990	6,300	860	3,990	1,360	1,360	3,840	990	4,650	620
9	500	560	860	2,960	860	2,840	1,240	1,240	2,650	1,480	1,110	620
10	500	500	740	1,980	860	2,410	1,240	1,170	1,850	1,360	680	560
11	440	500	740	1,420	860	2,040	1,240	1,110	1,420	1,300	560	500
12	380	500	740	1,240	1,240	1,920	1,110	1,600	6,820	1,480	4,320	500
13	380	500	740	1,600	1,670	1,790	1,110	1,240	5,800	4,650	9,180	500
14	380	500	740	1,640	1,670	1,730	1,110	1,110	2,720	1,790	3,390	500
15	380	500	800	1,300	1,420	1,600	1,240	1,420	1,650	1,300	2,100	1,240
16	380	500	740	1,170	1,240	1,600	1,540	1,920	1,420	1,050	1,300	740
17	3,390	500	740	1,110	1,110	1,480	1,540	2,350	1,850	800	920	3,540
18	1,540	560	740	990	990	1,480	2,410	1,920	2,780	680	740	1,360
19	1,050	500	920	990	1,170	1,790	3,690	1,540	1,980	990	1,420	800
20	740	560	920	860	1,480	2,720	4,980	1,300	1,420	800	1,050	680
21	680	620	860	860	1,360	2,590	3,690	1,110	1,170	920	8,820	620
22	620	860	800	860	1,240	2,040	2,530	1,170	990	860	6,300	560
23	620	1,670	740	860	1,240	1,790	1,850	1,170	920	740	2,280	740
24	620	1,170	740	860	1,110	1,600	1,600	1,300	740	680	1,300	500
25	620	920	740	860	1,170	1,480	2,550	1,060	740	560	1,360	500
26	620	740	740	990	20,300	1,480	1,850	920	740	680	1,730	560
27	620	740	740	920	13,100	2,160	1,480	860	740	1,480	1,240	500
28	500	620	740	860	10,700	2,220	1,480	860	740	1,110	4,650	560
29	500	620	740	860	1,790	1,730	800	800	860	1,110	4,650	560
30	500	620	620	860	1,600	1,980	1,980	740	800	1,110	2,410	500
31	500		620	800	1,480			740		2,160	1,600	
Month				Maximum	Minimum	Mean	Per square m.le		Run-off in inches			
October				3,890	380	839	0.605		0.68			
November				1,670	500	645	.589		.43			
December				990	620	766	.473		.55			
January				6,300	800	1,518	.914		1.05			
February				20,300	860	2,644	1.59		1.66			
March				26,900	1,480	4,190	2.52		2.90			
April				4,980	1,110	1,798	1.08		1.20			
May				2,900	740	1,427	.860		.99			
June				7,010	740	2,511	1.51		1.68			
July				4,650	560	1,432	.857		.99			
August				9,180	500	2,528	1.52		1.75			
September				3,540	500	777	.468		.52			
The year.				26,900	380	1,753	1.06		14.30			

## Tallapoosa River below Tallassee, Ala.

Location.— Water-stage recorder in T. 18 N., R. 22 E.,  $1\frac{1}{2}$  miles below highway bridge at Tallassee. Zero of gage is 162.03 feet above mean sea level.

Drainage area.— 3,320 square miles.

Records available.— July 1928 to September 1934.

Extremes.— Maximum discharge during year, 10,200 second-feet Oct. 25 (gage height, 9.1 feet); minimum, 15 second-feet Sept. 2, 3 (gage height, -0.25 foot); minimum daily discharge, 15 second-feet Sept. 2, 3.

1928-34: Maximum discharge, 115,000 second-feet Mar. 15, 1929 (gage height, 51.35 feet); minimum, 10 second-feet at various times during 1930 and 1931; minimum gage height, -1.6 feet Oct. 2, 5, 1932; minimum daily discharge, 10 second-feet June 3, 1930, and May 17, 1931.

Remarks.— Records good below 10,000 second-feet, fair above. Considerable regulation caused by operation of power plants upstream. Records collected by Alabama Power Co., under general supervision of the U. S. Geological Survey, in connection with a Federal Power Commission project.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	8,220	7,650	3,200	5,320	44	35	1,340	1,940	54	762	40
2	6,120	8,350	7,290	3,490	3,610	50	1,040	222	2,220	4,330	1,010	15
3	7,630	8,160	4,600	897	535	250	1,690	488	50	538	1,540	15
4	7,460	8,150	7,440	1,190	53	*3,470	136	38	615	20	283	2,620
5	7,630	4,180	7,610	518	1,960	*6,460	45	99	1,620	20	25	5,330
6	7,730	7,530	4,940	132	2,230	*2,670	45	239	661	1,700	2,040	5,060
7	7,290	7,710	7,400	43	3,620	622	45	1,890	443	978	3,170	4,710
8	1,220	7,790	7,550	1,060	1,960	1,710	40	812	34	170	710	4,940
9	6,050	7,660	5,990	2,100	1,780	576	35	1,740	20	2,000	2,810	66
10	7,890	7,730	869	1,950	1,170	50	35	2,340	20	2,520	1,540	4,560
11	8,450	7,160	4,970	1,400	272	60	35	2,190	146	3,020	2,380	7,930
12	8,000	4,180	5,600	1,040	1,880	181	40	51	566	2,810	1,150	7,860
13	8,140	7,090	6,400	124	3,020	171	35	35	2,260	325	2,490	7,940
14	7,480	7,450	5,660	43	3,130	491	45	2,630	1,070	271	1,300	7,790
15	1,500	7,680	6,480	2,100	2,430	807	794	53	36	20	827	8,550
16	6,600	7,670	6,490	2,770	2,430	170	426	809	23	4,700	994	1,210
17	8,490	7,700	5,824	2,500	133	55	640	3,790	20	4,630	2,100	5,840
18	8,450	7,410	4,270	1,850	45	50	203	2,330	374	6,920	56	8,000
19	8,310	4,260	4,220	1,800	1,750	1,490	1,360	55	787	8,060	37	7,500
20	8,260	7,730	5,470	129	1,820	1,060	1,770	35	3,490	7,780	1,630	8,230
21	7,670	7,490	5,370	41	1,910	648	179	152	2,020	7,560	2,190	7,900
22	4,040	7,610	4,250	2,450	1,540	1,270	76	38	705	1,440	25	7,740
23	7,380	7,590	5,940	3,880	1,090	56	1,710	962	45	5,370	25	7,300
24	7,600	8,200	159	1,130	127	50	1,690	59	20	8,120	20	6,600
25	8,810	6,440	45	1,630	52	50	223	46	4,520	8,070	20	8,290
26	7,580	4,200	358	1,140	2,680	615	56	20	6,350	7,890	20	8,460
27	7,920	7,640	2,500	108	2,800	462	35	20	6,700	7,010	904	8,640
28	7,420	7,750	2,600	44	419	671	55	893	7,450	4,970	1,830	8,380
29	4,240	8,090	2,500	3,680		805	55	2,160	6,950	54	2,210	7,900
30	7,660	7,850	4,190	3,770		397	1,070	1,990	6,300	677	2,240	6,460
31	8,190		62	4,140		78		2,310		403	1,530	
Month						Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October						8,810	67	6,819	2.05		2.36	
November						8,350	4,160	7,218	2.17		2.42	
December						7,850	45	4,513	1.33		1.57	
January						4,140	41	1,625	.439		.56	
February						5,320	45	1,774	.554		.56	
March						6,460	44	825	.248		.29	
April						1,770	35	455	.137		.15	
May						3,790	20	964	.230		.33	
June						7,450	20	1,932	.532		.65	
July						8,120	20	3,304	.935		1.15	
August						3,170	20	1,223	.358		.42	
September						8,640	15	5,863	1.77		1.98	
The year.						8,810	15	3,044	.917		12.44	

\*Discharge determined from kilowatt output at Thurlow Dam.

## East Fork of Tombigbee River near Fulton, Miss.

Location.- Chain gage in T. 9 S., R. 8 E., at highway bridge 2 miles west of Fulton.

Drainage area.- 650 square miles.

Records available.- August 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 9,000 second-feet Mar. 4 (gage height, 18.68 feet); minimum, 36 second-feet Aug. 17 (gage height, 1.72 feet).  
1928-34: Maximum discharge, 19,600 second-feet Sept. 28, 1933 (gage height, 18.52 feet); minimum, 14 second-feet Aug. 12, 1930 (gage height, 0.87 foot).

Remarks.- Records good.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	136	236	351	290	1,840	1,020	264	80	394	68	92
2	100	136	230	377	403	2,190	687	256	80	508	80	80
3	92	178	464	351	429	3,960	544	247	80	420	69	76
4	84	290	808	342	368	9,000	464	230	73	412	65	73
5	80	472	808	429	325	5,750	429	212	153	264	57	120
6	80	464	1,260	517	308	3,160	394	221	481	187	61	100
7	80	351	1,620	1,090	290	2,260	645	238	687	508	61	80
8	80	256	1,890	1,510	282	1,700	733	238	1,240	490	69	69
9	76	221	2,000	1,620	273	1,290	635	204	2,370	299	57	69
10	73	204	1,940	1,790	282	970	499	187	2,470	204	54	69
11	76	187	1,540	1,740	299	730	438	221	1,970	191	50	66
12	76	178	950	1,110	334	598	464	256	1,710	136	46	61
13	80	178	635	910	368	517	394	178	1,690	120	47	176
14	73	170	472	708	368	472	351	145	1,650	112	45	120
15	73	170	394	562	325	446	325	136	1,600	96	47	84
16	145	161	368	490	299	420	325	170	895	92	41	136
17	377	161	342	412	282	403	386	195	698	316	38	100
18	360	161	429	394	273	394	412	178	1,240	247	377	80
19	196	170	1,090	377	299	429	377	163	1,930	238	625	76
20	145	178	1,480	368	351	517	481	136	2,650	412	616	66
21	120	221	1,540	368	299	553	438	128	2,470	491	571	57
22	120	794	1,620	368	316	535	368	212	1,680	238	580	57
23	325	824	1,440	403	351	481	645	212	837	145	580	57
24	553	742	970	394	342	438	745	204	499	120	394	57
25	438	553	645	360	342	446	635	145	299	100	368	53
26	256	403	490	342	1,180	645	490	120	221	92	517	54
27	187	342	455	334	1,700	1,400	386	104	187	92	351	66
28	170	282	403	325	1,790	1,930	334	100	170	174	230	61
29	161	264	360	308		2,010	308	96	153	128	161	69
30	153	247	342	273		1,890	262	92	212	145	128	544
31	146		334	257		1,540		84		174	112	
Month				Maximum	Minimum	Mean	Per square mile	Run-off in inches				
October				553	73	164	0.252	0.29				
November				824	136	303	.456	.52				
December				2,000	230	889	1.37	1.58				
January				1,790	247	619	.952	1.10				
February				1,790	273	456	.702	.73				
March				9,000	394	1,577	2.43	2.80				
April				1,020	282	488	.751	.84				
May				264	84	179	.275	.32				
June				2,860	73	1,032	1.59	1.77				
July				508	92	238	.366	.42				
August				625	38	212	.326	.36				
September				544	53	95.6	.147	.16				
The year.				9,000	38	522	.803	10.91				

## Tombigbee River at Aberdeen, Miss.

Location.- Chain gage at St. Louis-San Francisco Railway bridge in Aberdeen, Monroe County, half a mile below Matubby Creek.

Drainage area.- 2,210 square miles.

Records available.- August 1928 to September 1934.

Extremes.- Maximum discharge during year, 16,600 second-feet Mar. 5 (gage height, 34.00 feet); minimum, 156 second-feet Aug. 17 (gage height, 2.13 feet).  
1928-34: Maximum discharge, 33,100 second-feet Dec. 16, 1931 (gage height, 39.61 feet); minimum, 61 second-feet Aug. 8, 1930; minimum gage height, 1.64 feet Sept. 27, 1931.  
Maximum stage known, 44.0 feet Apr. 20, 1892 (discharge not determined).

Remarks.- Records fair.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	333	333	580	840	684	4,280	3,240	790	309	591	273	365		
2	450	333	554	840	866	5,120	2,980	765	273	1,420	256	309		
3	554	333	701	866	944	11,400	2,660	715	291	3,760	222	273		
4	424	346	1,800	866	966	15,300	2,180	665	385	4,610	205	256		
5	320	528	1,300	866	944	16,400	1,680	640	327	2,200	188	239		
6	281	892	2,050	1,130	940	15,600	1,410	615	291	965	180	256		
7	255	1,070	4,510	2,300	788	15,000	2,330	815	450	590	160	239		
8	229	970	3,940	3,900	736	13,600	2,420	840	1,930	1,290	172	239		
9	229	736	2,740	2,890	710	11,700	1,890	715	4,460	1,020	172	222		
10	229	580	2,470	2,570	710	9,850	1,710	890	4,760	590	172	205		
11	216	502	2,260	2,430	710	7,610	1,500	1,820	4,160	640	172	196		
12	216	450	2,160	2,300	762	5,040	1,260	1,480	3,560	471	188	196		
13	203	424	2,190	2,300	866	3,020	1,140	790	2,770	405	188	309		
14	190	398	2,060	2,300	918	2,040	1,090	640	2,420	345	180	640		
15	203	398	1,670	2,160	918	1,680	1,020	567	2,140	309	164	427		
16	268	398	1,190	1,890	840	1,500	1,390	567	2,210	309	164	495		
17	398	398	970	1,560	762	1,350	2,710	840	2,520	495	156	495		
18	632	372	1,400	1,130	710	1,290	1,830	715	4,420	449	164	345		
19	632	372	2,600	1,020	762	1,260	1,410	591	5,080	702	222	309		
20	580	372	2,600	970	840	1,380	1,500	519	3,320	1,000	591	273		
21	398	398	1,990	944	814	1,530	1,360	449	2,210	591	890	222		
22	333	1,020	1,960	944	866	1,590	1,240	427	1,980	615	865	205		
23	307	1,700	1,890	970	918	1,660	1,740	567	2,070	615	840	188		
24	372	1,450	1,930	970	944	1,500	1,950	519	2,140	427	1,160	188		
25	684	1,450	1,930	944	1,510	1,440	1,680	449	1,950	309	1,740	172		
26	866	1,240	1,800	892	5,730	3,490	1,590	405	1,320	273	2,340	172		
27	684	996	1,640	866	7,010	6,660	1,350	385	790	239	4,080	164		
28	502	814	1,450	814	6,520	7,610	1,090	567	567	256	2,650	188		
29	398	684	1,020	814		7,160	940	385	471	385	1,220	239		
30	346	632	918	762		5,170	840	327	449	345	765	806		
31	346		866	684		3,760		327		273	471			
Month					Maximum		Minimum		Mean		Per square mile		Run-off in inches	
October					866		190		390		0.176		0.20	
November					1,700		333		686		.310		.35	
December					4,510		554		1,843		.834		.96	
January					3,900		684		1,437		.650		.75	
February					7,010		684		1,451		.657		.68	
March					16,400		1,260		5,996		2.71		3.12	
April					3,240		840		1,705		.771		.86	
May					1,820		327		671		.304		.36	
June					5,080		273		2,001		.965		1.01	
July					4,610		239		874		.365		.46	
August					4,080		156		685		.310		.36	
September					806		164		294		.133		.15	
The year.					16,400		156		1,507		.662		9.25	

## Tombigbee River at Columbus, Miss.

Location.- Chain gage at Mobile & Ohio Railroad bridge in Columbus, Lowndes County.  
Prior to March 12, 1934, staff gage with datum 4.00 feet higher.

Drainage area.- 4,490 square miles.

Records available.- January 1900 to December 1912, August 1928 to September 1934.

Average discharge.- 17 years (1900-1904, 1905-12, 1928-34), 6,010 second-feet.

Extremes.- Maximum discharge recorded during year, 44,300 second-feet Mar. 7 (gage height, 28.7 feet, present datum); minimum, 455 second-feet Aug. 12-14 (gage height, 1.11 feet, present datum).

1900-1912, 1928-34: Maximum gage height recorded, 34.6 feet (present datum) Mar. 31, 1902 (discharge not determined); minimum discharge not determined.  
Maximum stage known, 42.6 feet (present datum) Apr. 8, 1892 (discharge not determined).

Remarks.- Records fair. Gage heights estimated by observer Mar. 8-12. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,410	720	1,000	1,410	1,230	12,500	7,750	1,790	800	950	800	1,230
2	1,230	720	1,000	1,650	1,290	12,600	6,320	1,590	720	1,110	760	1,000
3	1,170	690	950	1,930	1,410	24,700	5,440	1,530	640	2,510	640	900
4	1,110	690	1,170	2,140	1,720	30,500	4,650	1,470	640	5,560	560	720
5	850	800	2,000	2,000	1,790	35,500	3,950	1,350	950	7,170	560	640
6	720	1,000	2,070	1,930	1,590	42,300	3,200	1,350	800	4,070	525	640
7	640	1,410	3,650	3,650	1,410	44,300	2,840	1,530	760	2,140	525	640
8	600	1,650	5,200	6,840	1,350	43,100	5,090	1,930	1,290	3,470	490	640
9	600	1,470	4,950	7,100	1,230	38,300	4,350	1,930	4,050	3,630	490	560
10	560	1,110	3,950	6,930	1,230	27,800	3,650	1,650	6,650	3,630	490	560
11	560	950	3,110	4,980	1,290	20,000	3,110	1,470	6,840	2,750	490	560
12	560	850	2,840	4,050	1,470	14,600	2,750	3,290	6,970	1,470	455	525
13	560	800	2,750	3,750	2,070	8,140	2,350	2,840	6,930	1,000	455	525
14	560	800	2,750	3,650	2,140	5,560	2,140	1,930	4,650	670	455	640
15	525	800	2,510	3,110	2,070	4,250	2,000	1,720	3,560	720	455	950
16	525	760	2,070	2,930	1,860	3,560	2,000	1,290	3,110	670	490	1,110
17	690	760	1,790	2,510	1,650	3,110	3,750	1,530	3,020	640	490	900
18	1,110	760	1,650	2,070	1,350	2,930	7,250	2,000	6,320	1,110	490	1,350
19	1,530	720	3,290	1,790	1,410	2,750	7,100	1,930	7,100	970	490	1,350
20	1,470	760	3,380	1,650	1,650	2,840	6,930	1,790	9,800	1,110	490	900
21	1,110	950	3,290	1,650	1,650	3,200	4,550	1,170	6,320	1,370	1,000	720
22	850	2,070	2,930	1,590	1,650	3,580	3,850	1,470	3,290	970	1,350	640
23	760	2,210	2,750	1,590	1,790	3,750	3,750	1,170	2,670	900	1,470	560
24	720	2,590	2,590	1,490	2,000	3,650	4,050	1,170	2,590	900	1,860	560
25	760	2,430	2,430	1,650	2,280	3,290	3,850	1,050	2,590	720	2,750	525
26	1,050	2,140	2,350	1,590	5,930	4,050	3,470	900	2,280	640	3,470	490
27	1,170	1,720	2,280	1,530	10,400	10,500	3,110	800	1,590	670	4,450	490
28	950	1,410	2,000	1,470	12,000	13,200	2,590	850	1,110	600	6,060	490
29	850	1,170	1,650	1,470		15,300	2,510	1,410	900	900	5,200	490
30	800	1,050	1,590	1,350		15,600	1,930	1,050	900	900	3,110	525
31	720		1,470	1,290		12,000		900		800	1,860	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	1,530			525			862			0.192	0.22	
November	2,590			690			1,198			.287	.30	
December	5,200			950			2,507			.558	.64	
January	7,100			1,290			2,640			.588	.68	
February	12,000			1,230			2,461			.548	.57	
March	44,300			2,750			15,080			3.36	3.87	
April	7,750			1,930			3,975			.885	.99	
May	5,290			800			1,544			.344	.40	
June	9,800			640			3,259			.726	.81	
July	7,100			600			1,764			.393	.45	
August	6,060			455			1,393			.310	.36	
September	1,350			490			724			.161	.18	
The year.	44,300			455			3,131			.697	9.47	

## Tombigbee River near Coatopa, Ala.

Location.- Chain gage in T. 17 N., R. 1 E., at Moscow Memorial Bridge, 2 miles above Sucarnoochee Creek and 5 miles southeast of Coatopa.

Drainage area.- 15,500 square miles.

Records available.- Aug. st 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 90,700 second-feet Mar. 12 (gage height, 42.67 feet); minimum, 1,060 second-feet Oct. 14 (gage height, 2.88 feet).  
1928-34: Maximum discharge, 179,000 second-feet Mar. 29, 1929 (gage height, 51.4 feet); minimum, 371 second-feet Oct. 1, 1931 (gage height, 2.32 feet).

Remarks.- Records fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,940	1,830	2,880	5,130	5,420	41,700	45,200	8,920	3,300	2,880	12,900	10,400
2	2,250	1,730	2,880	6,900	5,710	41,100	41,700	7,800	3,090	3,820	10,400	7,800
3	3,090	1,830	3,760	12,000	6,000	48,400	34,200	7,500	2,880	4,560	7,800	4,280
4	2,880	1,730	2,560	14,600	6,300	61,800	26,200	6,600	2,670	6,300	4,560	3,300
5	2,460	1,630	2,670	13,900	6,600	71,400	19,200	6,000	2,560	8,090	3,300	2,880
6	2,560	1,440	3,520	13,100	6,900	76,500	15,400	6,300	3,520	10,600	2,880	2,560
7	2,360	1,630	4,010	19,400	6,600	80,000	13,900	6,900	6,600	11,600	2,670	2,250
8	1,940	2,140	6,000	25,700	6,300	83,100	14,200	7,800	7,800	13,100	3,520	2,140
9	1,730	2,680	9,380	31,500	5,420	88,900	13,500	7,800	12,600	10,400	5,420	1,940
10	1,730	3,090	7,800	35,900	5,130	88,400	13,700	7,500	16,600	14,600	4,280	1,830
11	1,350	3,300	9,440	37,900	5,130	89,800	13,500	7,200	16,200	17,200	3,300	1,730
12	1,350	2,670	7,800	37,000	7,500	90,700	11,800	6,900	15,800	15,400	3,760	1,630
13	1,180	2,360	6,000	32,500	9,690	89,800	9,930	6,000	16,600	11,800	3,760	1,630
14	1,180	2,140	5,710	23,800	11,500	87,500	9,690	6,600	19,600	9,180	5,710	1,940
15	1,180	2,140	6,000	16,400	12,000	81,700	8,650	7,200	20,000	7,800	7,600	2,140
16	1,260	1,940	5,710	13,500	10,800	71,400	8,090	9,690	15,800	5,420	7,200	2,140
17	1,440	1,940	5,420	12,600	10,200	58,200	10,200	10,600	11,800	4,840	5,420	2,140
18	1,940	1,940	5,420	11,500	8,920	44,700	14,200	8,650	9,440	4,010	3,300	2,360
19	2,250	2,140	6,300	10,200	8,380	33,800	14,600	8,920	7,800	4,280	3,090	2,460
20	2,560	1,940	7,500	9,180	8,090	26,800	20,400	8,380	9,930	3,760	3,520	2,670
21	3,090	2,140	11,800	8,650	8,380	21,100	19,800	7,800	11,300	3,300	4,840	2,880
22	3,760	2,560	13,800	8,380	8,090	20,600	17,600	6,000	11,300	3,820	5,420	2,250
23	3,520	2,680	10,200	7,800	10,400	20,700	15,200	4,940	9,930	3,520	7,500	2,140
24	3,300	4,280	9,440	7,500	10,600	20,200	13,500	6,300	6,600	2,300	9,930	1,830
25	2,880	5,130	8,380	7,200	10,600	18,600	12,400	6,300	5,130	2,460	10,600	1,630
26	2,140	5,130	6,900	7,200	27,200	17,800	12,200	4,010	4,560	2,140	10,200	1,540
27	2,250	5,420	6,300	6,900	35,600	23,300	11,800	3,760	4,280	2,140	9,390	1,440
28	2,560	4,280	6,600	6,300	39,200	32,600	11,500	3,300	4,010	3,760	10,400	1,440
29	2,140	4,010	6,600	6,000		39,600	10,800	2,880	3,090	7,800	12,600	1,350
30	2,040	3,520	5,710	5,710		43,200	10,600	3,090	3,760	10,600	13,300	1,440
31	1,940		4,840	5,130		45,400		3,300		16,700	11,800	
Month	Maximum			Minimum			Mean			Per square mile		Run-off in inches
October	3,760			1,180			2,202			0.142		0.16
November	5,420			1,440			2,709			.175		.20
December	13,500			2,560			6,446			.416		.48
January	37,900			5,130			14,820			.956		1.10
February	39,200			5,130			10,810			.697		.73
March	90,700			17,600			53,370			3.44		5.97
April	45,200			8,090			16,460			1.06		1.18
May	10,600			2,880			6,608			.426		.49
June	20,000			2,560			8,968			.579		.65
July	17,200			2,140			7,274			.469		.54
August	13,300			2,670			6,800			.439		.51
September	10,400			1,350			2,595			.167		.19
The year	90,700			1,180			11,640			.751		10.20

## Tombigbee River near Leroy, Ala.

Location.— Staff gage just above Lock 1, in T. 7 N., on St. Stephens meridian, 6 miles northwest of Leroy. Zero of gage is 4.69 feet below mean sea level.

Drainage area.— 19,100 square miles.

Records available.— October 1928 to September 1934.

Extremes.— Maximum discharge recorded during year, 88,900 second-feet Mar. 16, 17 (gage height, 37.87 feet); minimum, about 1,000 second-feet Oct. 16 (due to placing flash-boards on dam).

1928-34: Maximum discharge, 190,000 second-feet Apr. 2, 1929 (gage height, 46.0 feet); minimum not determined.

Remarks.— Records good for high stages and fair for low and medium stages.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,350	2,900	4,450	6,650	8,450	41,900	47,300	14,200	4,450	4,450	23,900	14,200
2	2,620	2,760	4,280	7,970	9,470	44,200	49,300	11,800	4,450	4,120	22,500	11,200
3	3,190	2,760	3,960	9,470	10,000	49,300	48,900	10,600	4,120	4,790	16,700	7,970
4	3,490	2,480	3,640	15,500	9,470	62,200	45,700	9,470	3,800	5,870	10,600	5,870
5	3,490	2,480	3,640	19,000	9,470	70,500	39,200	8,950	4,120	7,070	7,510	5,140
6	3,490	2,480	3,800	19,000	9,470	75,400	31,700	9,470	4,280	10,000	5,500	4,120
7	3,490	2,480	4,450	24,200	8,950	78,200	26,200	10,600	5,500	13,000	4,450	3,800
8	3,190	2,480	5,870	28,400	8,450	78,900	21,700	13,000	8,450	18,400	4,280	3,490
9	2,900	2,900	7,510	31,100	7,970	80,300	19,000	12,400	10,600	18,400	5,140	3,190
10	2,620	3,490	10,000	33,800	7,970	81,700	18,400	13,000	15,500	16,700	6,650	3,040
11	2,350	3,800	11,200	36,100	8,450	83,300	18,400	13,000	19,000	19,000	5,870	2,900
12	2,350	3,800	10,600	38,200	17,900	84,900	17,900	11,800	20,000	20,400	5,140	2,620
13	2,220	3,490	9,470	39,200	20,900	85,700	15,500	10,000	19,000	19,500	5,500	2,620
14	2,090	3,040	7,510	37,300	20,000	86,500	14,200	8,450	20,000	15,500	5,870	2,620
15	2,090	2,900	6,650	32,700	18,400	88,100	13,000	8,950	22,500	11,800	7,070	2,760
16	1,600	2,760	6,650	25,900	16,700	88,900	14,200	10,000	22,500	8,950	8,450	2,900
17	1,840	2,620	6,650	20,400	14,900	88,100	13,600	13,000	20,900	7,510	8,450	2,900
18	2,220	2,480	6,650	16,700	13,600	86,500	14,200	14,900	15,500	6,250	6,650	2,900
19	3,040	2,480	7,070	14,200	14,200	80,300	16,400	13,600	11,800	5,870	5,140	3,190
20	3,340	2,480	7,970	13,000	13,000	69,900	24,600	11,900	10,000	5,140	4,790	3,340
21	3,800	2,480	9,470	11,800	11,800	57,400	26,900	10,600	10,600	4,790	5,140	3,490
22	4,280	2,760	13,000	11,200	11,200	46,900	25,900	8,450	13,000	4,790	9,470	3,490
23	4,450	2,760	14,200	10,600	12,400	39,500	23,900	7,510	13,000	4,790	10,600	3,490
24	4,450	3,190	13,600	10,000	14,200	34,400	20,900	6,650	10,600	4,450	11,800	3,190
25	4,450	4,120	11,800	11,000	14,900	31,100	18,400	8,450	7,970	4,120	13,000	2,900
26	3,800	5,140	9,470	10,600	23,200	27,800	16,700	7,510	6,650	3,640	13,000	2,900
27	3,340	5,870	8,450	10,600	32,700	29,000	16,100	6,250	5,870	3,340	12,400	2,620
28	3,040	5,870	7,970	10,000	38,800	33,300	16,100	5,870	5,140	4,120	11,800	2,350
29	3,040	5,500	7,510	9,470		37,300	17,900	5,140	4,790	6,650	13,000	2,480
30	3,040	5,140	7,070	8,450		40,900	16,700	4,450	4,450	15,500	15,500	2,480
31	3,040		6,650	7,970		44,600		4,450		19,500	16,700	
Month	Maximum			Minimum			Mean			Per square mile	Run-off in inches	
October	4,450			1,600			3,055			0.160	0.18	
November	5,870			2,480			3,330			.174	.19	
December	14,200			3,640			7,761			.407	.47	
January	39,200			6,650			18,690			.979	1.13	
February	38,800			7,970			14,530			.761	.79	
March	88,900			27,800			62,160			3.25	3.75	
April	49,300			13,000			23,700			1.24	1.38	
May	14,900			4,450			9,617			.614	.58	
June	22,500			3,800			10,950			.573	.64	
July	20,400			3,340			9,628			.504	.58	
August	23,900			4,450			9,760			.612	.59	
September	14,200			2,350			4,005			.210	.23	
The year	88,900			1,600			14,830			.776	10.52	

## Milberry Fork of Black Warrior River near Garden City, Ala.

Location.- Chain gage in T. 12 S., R. 2 W., at highway bridge 1,000 feet below Louisville & Nashville Railroad and 1 mile southwest of Garden City.

Drainage area.- 365 square miles.

Records available.- June 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 14,300 second-feet Mar. 3 (gage height, 12.18 feet); minimum, 6 second-feet Oct. 10-16, 21 (gage height, 2.01 feet).  
1928-34: Maximum discharge, 30,400 second-feet Nov. 14, 1929 (gage height, 17.96 feet); minimum, 3 second-feet Sept. 28-30, Oct. 1, 3-6, 1931 (gage height, 1.88 feet).

Remarks.- Records good.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	7	10	1,870	165	630	955	186	53	238	176	163
2	17	7	9	785	251	1,920	795	170	50	2,070	141	128
3	13	7	12	458	200	9,700	690	160	207	752	116	109
4	11	7	11	570	165	5,380	630	138	2,070	324	100	103
5	10	12	10	690	155	2,630	570	128	955	215	83	103
6	9	18	149	2,300	135	1,770	512	166	885	189	70	88
7	8	14	180	7,670	125	1,500	430	402	2,510	1,150	60	72
8	7	10	72	2,610	125	1,230	402	170	1,150	2,390	273	64
9	7	10	42	1,500	125	990	375	158	850	1,230	215	54
10	6	10	32	1,150	125	850	350	125	1,410	1,150	116	50
11	6	11	29	885	125	752	277	143	920	885	79	48
12	6	12	29	885	211	660	260	157	920	720	2,630	44
13	6	11	42	752	256	570	219	128	885	540	2,270	58
14	6	10	38	630	219	512	225	111	570	402	512	77
15	6	9	32	540	196	458	207	128	430	300	324	58
16	8	8	31	458	186	430	247	219	324	324	247	98
17	10	8	43	430	170	375	1,150	300	375	219	166	76
18	9	8	112	375	152	350	430	180	324	183	1,070	54
19	8	10	860	350	170	1,070	850	141	251	690	540	45
20	7	8	575	350	155	1,320	660	121	186	207	350	38
21	6	8	234	300	141	1,230	485	103	152	146	540	36
22	10	238	111	268	146	1,030	375	152	133	121	375	30
23	18	90	90	264	146	920	402	196	118	98	300	25
24	15	43	76	226	155	785	375	123	100	83	204	24
25	10	25	64	223	215	920	402	92	86	69	204	24
26	8	17	66	215	2,070	920	300	76	74	1,770	2,170	22
27	9	15	64	196	990	5,710	268	72	59	324	485	21
28	8	15	58	176	720	2,270	238	74	58	1,150	785	22
29	7	12	54	157		1,590	211	70	690	512	600	23
30	7	11	47	141		1,320	196	66	690	324	324	38
31	7		69	133		1,150		58		234	215	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				23	6	9.29	0.035		0.03			
November				238	7	22.4	.031		.07			
December				860	9	105	.238		.33			
January				7,670	133	889	2.44		2.81			
February				2,070	123	285	.731		.81			
March				9,700	350	1,643	4.67		5.19			
April				1,150	196	449	1.23		1.37			
May				402	58	146	.470		.46			
June				2,510	50	583	1.67		1.78			
July				2,390	69	613	1.63		1.94			
August				2,630	60	508	1.39		1.60			
September				163	21	59.8	.164		.18			
The year				9,700	6	446	1.22		16.57			



## Black Warrior River at Lock 17, near Bessemer, Ala.

Location.- Staff gage in T. 18 S., R. 8 W., at Lock 17,  $1\frac{1}{2}$  miles below Big Yellow Creek and 23 miles west of Bessemer. Zero of gage is 173.11 feet above mean sea level.

Drainage area.- 3,980 square miles.

Records available.- June 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 83,000 second-feet Mar. 4 (gage height, 77.06 feet); minimum, 82 second-feet Oct. 10-16, Oct. 31 to Nov. 3, Nov. 17 (gage height, 69.50 feet).  
1928-34: Maximum discharge, 133,000 second-feet Nov. 15, 1929 (gage height, 79.94 feet); minimum not determined.  
Maximum stage known, 80.3 feet July 9, 1916.

Remarks.- Records fair. Daily discharge not sufficiently accurate for publication. Flow regulated by storage above Lock and Dam 17. Records do not include leakage, which probably amounts to 80 second-feet.

Discharge, in second-feet, 1933-34

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October. . . . .	584	82	215	0.054	0.06
November. . . . .	1,160	82	315	.079	.09
December. . . . .	8,180	202	1,401	.352	.41
January. . . . .	38,400	1,120	7,130	1.79	2.06
February. . . . .	19,400	1,120	3,413	.858	.89
March. . . . .	79,800	2,610	16,270	4.09	4.72
April. . . . .	7,780	1,680	3,659	.919	1.05
May. . . . .	2,180	560	1,296	.326	.38
June. . . . .	19,400	400	3,559	.894	1.00
July. . . . .	14,400	584	3,225	.810	.93
August. . . . .	6,620	632	2,457	.617	.71
September. . . . .	1,550	220	581	.146	.16
The year. . . . .	79,800	82	3,646	.916	12.44

## Black Warrior River at Tuscaloosa, Ala.

Location.- Staff gage in T. 21 S., R. 10 W., at Lock 10, in Tuscaloosa. Zero of gage is 82.97 feet above mean sea level.

Drainage area.- 4,830 square miles.

Records available.- January 1889 to December 1905, August 1928 to September 1934.

Average discharge.- 14 years (1894-1902, 1928-34), 8,000 second-feet.

Extremes.- Maximum discharge during year, 99,700 second-feet Mar. 4; maximum gage height, 57.60 feet Mar. 4; minimum discharge, 303 second-feet Oct. 13-15 (gage height, 18.64 feet).

1889-1905, 1928-34: Maximum discharge, 215,000 second-feet Apr. 18, 1900 (gage height, 67.7 feet); minimum (estimated), 50 second-feet Aug. 26, 1929.  
Maximum stage known, that of Apr. 18, 1900.

Remarks.- Records fair. Discharge determined by using rate of change in stage as a factor.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	599	407	612	4,420	1,890	12,700	11,100	2,730	760	2,600	2,600	2,000
2	746	407	612	13,000	2,350	11,900	8,420	2,480	718	2,730	1,680	1,490
3	664	396	625	10,400	2,230	65,900	6,960	2,230	815	3,970	1,490	1,220
4	664	407	965	7,330	2,230	97,100	5,690	2,110	905	3,540	1,220	1,110
5	638	526	860	7,700	2,110	75,300	5,220	1,890	2,350	2,600	1,030	980
6	491	526	1,010	14,000	2,000	47,700	4,580	2,350	5,550	2,110	1,220	980
7	445	704	1,680	41,500	1,890	26,000	4,270	2,730	5,710	1,890	1,140	1,140
8	388	1,010	2,230	38,800	1,780	16,400	3,970	2,600	18,900	5,130	1,140	960
9	350	788	2,000	27,000	1,680	11,800	3,680	2,350	11,800	12,800	2,230	760
10	350	690	1,580	17,500	1,680	9,680	3,540	1,890	7,510	10,800	4,900	612
11	334	573	1,310	13,000	1,580	8,150	3,260	1,680	6,780	6,960	2,730	661
12	327	526	1,220	9,120	2,350	6,950	3,000	1,490	12,300	4,900	2,000	612
13	303	625	1,140	7,330	3,970	6,300	2,600	1,490	12,100	3,540	5,100	746
14	303	456	1,580	6,600	4,270	5,550	2,480	1,400	8,770	2,860	7,940	890
15	327	426	1,310	5,550	3,970	4,900	2,350	1,680	5,550	2,230	4,580	1,030
16	398	426	1,220	4,580	3,540	4,580	2,600	2,600	3,680	2,350	2,600	890
17	1,220	407	1,140	4,270	3,130	4,270	4,580	2,860	2,860	2,110	1,680	860
18	996	426	1,490	3,540	2,730	3,970	7,330	2,600	2,350	1,680	1,680	935
19	788	537	5,890	3,260	3,000	4,900	6,960	2,230	2,230	1,680	3,400	830
20	677	537	10,400	3,130	2,750	9,920	6,600	1,890	2,000	2,600	3,540	690
21	638	560	6,960	2,860	2,480	12,000	6,600	1,580	1,680	2,110	3,540	612
22	935	1,890	4,270	2,730	2,600	11,600	5,550	1,490	1,490	1,490	4,900	612
23	1,140	2,350	3,000	2,730	2,730	10,300	4,900	1,400	1,220	1,220	5,220	586
24	845	1,680	2,480	2,600	2,480	8,770	4,580	1,310	1,110	950	4,270	526
25	664	1,220	2,000	2,480	3,530	8,060	5,550	1,140	1,030	774	3,680	456
26	560	1,060	1,890	2,350	20,600	9,840	4,900	980	788	1,110	3,130	416
27	514	890	1,780	2,230	23,000	33,200	4,270	890	732	5,550	4,270	378
28	407	774	1,680	2,110	16,500	33,000	3,680	980	690	4,900	4,270	416
29	407	677	1,680	2,110		24,100	3,400	980	677	6,240	3,540	480
30	407	548	1,400	1,780		17,600	3,000	950	935	5,220	3,680	468
31	407		1,400	1,680		14,000		935		3,540	2,860	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				1,220	303	578	0.120		0.14			
November				2,350	398	748	.155		.17			
December				10,400	612	2,171	.449		.52			
January				41,500	1,680	8,635	1.79		2.06			
February				23,000	1,580	4,465	.924		.96			
March				97,100	3,970	19,880	4.12		4.75			
April				11,100	2,350	4,861	1.01		1.13			
May				2,860	890	1,304	.373		.43			
June				18,900	677	4,133	.856		.96			
July				12,800	774	3,619	.749		.86			
August				7,940	1,030	3,144	.651		.75			
September				2,000	378	811	.168		.19			
The year				97,100	303	4,593	.951		12.92			

## Black Warrior River near Eutaw, Ala.

Location.- Water-stage recorder in SE $\frac{1}{4}$  sec. 6, T. 21 N., R. 3 E., at highway bridge between Eutaw and Wedgworth,  $1\frac{1}{4}$  miles below mouth of Big Creek and 4 miles southeast of Eutaw.

Drainage area.- 5,820 square miles.

Records available.- May 1932 to September 1934.

Extremes.- Maximum discharge during year, 68,200 second-feet Mar. 7; maximum gage height, 51.01 feet Mar. 8; minimum discharge, 458 second-feet Oct. 16 (gage height, 18.95 feet).

1932-34: Maximum discharge, 85,600 second-feet Dec. 16, 1932; maximum gage height, 54.41 feet Dec. 17, 1932; minimum discharge, that of Oct. 16, 1933.

Remarks.- Records good below 5,500 second-feet, fair above. Discharge determined by using surface slope as a factor. Discharge estimated Nov. 21 to Dec. 17.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	850	714	800	2,650	2,420	22,400	22,800	4,150	1,200	1,670	5,120	3,430
2	954	725	850	10,600	2,690	17,000	16,500	3,790	1,080	2,810	3,670	2,450
3	954	714	900	12,400	2,950	22,200	11,400	3,310	1,180	3,310	2,560	1,860
4	980	690	900	10,400	3,070	34,400	9,200	2,950	1,150	4,030	1,970	1,530
5	941	690	1,400	7,700	3,000	42,600	8,150	2,690	1,780	3,790	1,580	1,380
6	863	788	1,400	8,850	2,810	50,500	7,150	2,830	3,670	3,050	1,630	1,270
7	738	838	1,600	19,600	2,600	64,900	6,550	3,910	5,250	2,930	1,580	1,290
8	668	967	2,000	25,000	2,470	63,900	6,150	4,150	8,720	3,190	1,710	1,300
9	610	1,140	2,700	31,000	2,360	54,400	6,100	3,790	17,000	7,800	2,620	1,180
10	568	1,060	2,250	31,800	2,320	45,600	5,250	3,190	14,400	12,800	2,360	1,080
11	558	954	1,900	27,300	2,300	32,800	4,880	2,650	9,350	11,100	3,070	967
12	536	889	1,600	21,600	2,780	29,600	4,510	2,400	8,300	8,100	2,950	928
13	536	826	1,500	13,400	3,910	24,200	4,150	2,230	13,900	6,100	3,510	960
14	505	738	1,450	8,900	4,750	17,100	3,670	2,070	15,000	4,270	5,900	1,050
15	486	714	1,850	7,250	5,000	9,400	3,550	2,320	11,300	3,510	7,250	1,120
16	505	690	1,600	6,500	4,750	6,950	3,550	2,690	6,600	2,690	5,250	1,150
17	850	679	1,500	5,750	4,390	6,400	4,030	3,910	4,750	2,560	3,310	1,150
18	1,320	668	2,070	5,120	3,910	6,400	6,020	4,270	3,790	2,380	2,340	1,150
19	1,320	725	3,430	4,630	3,790	6,600	8,250	3,910	3,190	2,050	2,400	1,150
20	1,120	800	8,900	4,390	3,790	8,450	8,200	3,070	2,780	2,210	3,790	1,110
21	1,010	800	10,800	4,030	3,550	12,800	8,000	2,420	2,450	2,580	4,270	994
22	1,080	800	7,050	3,790	3,670	14,800	7,600	2,090	2,050	2,210	4,750	915
23	1,380	2,200	5,500	3,790	4,030	14,900	6,750	1,930	1,800	1,760	6,600	915
24	1,460	2,700	4,150	3,670	4,030	13,300	5,750	1,840	1,550	1,430	6,600	863
25	1,240	2,100	3,190	3,650	4,150	11,600	6,000	1,710	1,380	1,210	5,600	812
26	1,050	1,500	2,600	3,430	9,000	11,000	6,150	1,500	1,240	1,120	4,510	738
27	928	1,350	2,400	3,190	17,800	15,100	5,500	1,350	1,120	2,010	4,030	679
28	812	1,200	2,320	3,020	22,900	26,000	5,000	1,270	1,040	2,190	5,250	644
29	775	1,100	2,210	2,900		31,200	4,750	1,500	1,010	5,250	5,900	690
30	750	950	2,050	2,690		29,000	4,510	1,320	1,180	7,200	5,120	738
31	714		2,010	2,420		27,400		1,260		6,600	4,630	
Month					Maximum	Minimum	Mean	Per square mile	Run-off in inches			
October					1,460	486	873	0.150	0.17			
November						668	1,024	.176	.20			
December					10,800		2,738	.470	.54			
January					31,800	2,420	9,717	1.67	1.92			
February					22,900	2,300	4,828	.830	.86			
March					64,900	6,400	24,930	4.28	4.93			
April					22,800	3,550	7,002	1.20	1.34			
May					4,270	1,260	2,654	.456	.53			
June					17,000	1,010	4,974	.855	.95			
July					12,800	1,120	3,991	.686	.79			
August					7,250	1,530	3,911	.672	.77			
September					3,430	644	1,184	.203	.23			
The year					64,900	486	5,682	.976	13.23			

Sipsey Fork of Mulberry Fork of Black Warrior River near Sipsey, Ala.

Location.- Staff gage in T. 13 S., R. 5 W., 200 feet below Lieth Creek,  $3\frac{1}{2}$  miles north-east of Sipsey, and 5 miles above mouth.

Drainage area.- 1,020 square miles.

Records available.-September 1928 to September 1934.

Extremes.- Maximum discharge during year, 32,400 second-feet Mar. 3; maximum gage height recorded, 41.65 feet Mar. 4; minimum discharge, 58 second-feet Sept. 29 (gage height, 3.85 feet).

1928-34: Maximum discharge, 50,400 second-feet Nov. 14, 1929 (gage height, 56.30 feet); minimum, 5 second-feet June 30, 1930 (gage height, 2.99 feet).

Remarks.- Records fair. Discharge determined by using surface slope as a factor.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	77	101	2,220	265	1,620	1,920	690	182	852	300	195
2	160	77	101	2,100	450	4,200	1,580	630	166	1,690	248	154
3	116	71	106	975	450	27,300	1,300	570	166	865	212	131
4	124	71	113	750	365	22,300	1,090	540	182	690	173	118
5	101	87	108	1,140	320	8,550	1,030	510	1,140	365	146	113
6	85	265	401	2,110	320	4,850	920	480	986	300	126	111
7	79	151	810	12,000	300	3,380	865	450	2,760	1,060	340	103
8	73	118	420	6,570	282	2,740	810	420	2,540	3,360	265	92
9	65	103	265	3,440	252	2,160	750	365	1,680	2,870	166	83
10	62	94	212	2,160	300	1,720	720	320	1,250	1,140	145	73
11	63	87	173	1,470	300	1,470	660	320	1,080	1,140	140	65
12	65	83	157	1,200	570	1,250	600	300	1,080	600	182	65
13	63	83	340	1,080	720	1,080	540	282	810	420	715	92
14	63	81	300	920	660	920	510	265	540	320	195	103
15	65	81	248	750	600	865	510	320	390	265	143	154
16	60	87	212	660	570	810	570	600	320	265	118	113
17	212	81	189	600	480	750	1,770	865	265	212	108	300
18	212	79	450	540	450	720	2,420	600	248	185	94	195
19	129	87	2,420	510	450	1,080	1,580	450	230	1,070	212	146
20	113	87	2,040	480	420	2,440	2,020	340	250	365	212	116
21	99	96	975	450	390	2,660	1,620	300	195	248	1,200	99
22	116	282	600	450	390	2,660	1,420	420	173	182	630	87
23	121	510	450	420	420	2,240	1,250	390	151	148	690	81
24	103	248	365	390	390	1,780	1,470	300	131	129	300	71
25	90	165	320	365	453	1,680	1,360	248	124	116	230	63
26	79	151	300	365	3,970	2,880	1,140	212	108	1,440	707	62
27	67	126	282	340	3,560	8,380	1,030	195	101	920	1,220	60
28	75	118	265	320	2,240	5,840	920	265	87	1,580	810	59
29	79	111	248	300		3,590	810	230	230	1,420	690	58
30	73	106	230	282		2,980	720	248	1,010	865	365	67
31	71		212	265		2,340		212		480	248	
Month	Maximum					Minimum			Mean		Per square mile	Run-off in inches
October	212					60			98.3		0.098	0.11
November	510					71			129		.126	.14
December	2,420					101			433		.425	.49
January	12,000					265			1,472		1.44	1.66
February	3,870					265			724		.710	.74
March	27,300					720			4,101		4.02	4.64
April	2,420					510			1,130		1.11	1.24
May	965					195			396		.390	.45
June	2,760					87			618		.608	.68
July	3,360					116			828		.812	.94
August	1,220					94			365		.358	.41
September	300					58			108		.106	.12
The year	27,300					58			872		.855	11.62

Locust Fork of Black Warrior River at Trafford, Ala.

Location.- Water-stage recorder in T. 14 S., R. 2 W., at highway bridge three-quarters of a mile northwest of Trafford and  $1\frac{1}{2}$  miles east of Coaldale. Prior to Jan. 27, 1934, chain gage with same datum at same location.

Drainage area.- 622 square miles.

Records available.- September 1930 to September 1934.

Extremes.- Maximum discharge during year, 22,600 second-feet Mar. 4 (gage height, 33.91 feet); minimum discharge, 14 second-feet Oct. 30 to Nov. 1; minimum gage height, 2.47 feet Nov. 1.  
1930-34: Maximum discharge, that of Mar. 4, 1933; minimum, 8 second-feet Oct. 2, 19-21, 1931 (gage height, 2.39 feet).

Remarks.- Records good. Discharge estimated Sept. 16-22.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	133	14	46	1,860	307	1,340	1,300	292	116	400	292	322
2	96	20	46	2,000	354	1,240	1,060	276	110	369	245	276
3	72	16	96	1,160	369	13,200	925	260	119	464	215	245
4	130	23	74	1,060	338	19,200	823	245	866	307	200	338
5	93	148	102	1,440	307	7,490	723	230	1,520	260	194	789
6	63	673	159	1,820	292	3,790	657	245	723	230	179	369
7	56	246	510	8,600	276	2,680	592	292	1,020	2,520	158	260
8	41	145	338	4,910	260	2,050	560	292	1,260	3,200	409	230
9	34	105	216	2,940	260	1,690	496	260	891	2,680	3,550	206
10	27	85	168	1,920	260	1,380	464	230	801	2,160	1,180	194
11	27	69	145	1,400	260	1,180	432	338	4,130	1,340	464	185
12	25	66	119	1,280	307	995	369	276	3,040	1,100	2,340	167
13	29	53	151	1,600	432	891	338	230	2,580	789	3,220	158
14	27	39	128	1,240	432	789	322	230	1,300	560	1,480	215
15	27	34	142	1,020	384	723	322	276	887	464	657	212
16	58	34	125	880	354	657	338	260	624	369	400	185
17	82	30	122	775	322	592	496	307	496	307	322	185
18	69	46	154	673	307	528	560	276	464	276	667	185
19	58	44	291	607	307	1,270	624	230	624	384	528	185
20	53	41	446	574	307	2,780	823	212	400	400	657	185
21	44	41	384	510	292	1,920	657	194	307	292	3,220	185
22	44	128	291	478	292	1,420	496	168	260	230	1,680	185
23	41	110	231	446	276	1,180	432	170	245	206	857	125
24	29	119	198	400	276	1,030	432	149	215	188	1,420	119
25	18	85	180	368	358	1,340	528	170	197	336	1,380	119
26	16	85	216	368	3,930	1,850	400	158	182	2,610	1,030	116
27	16	74	261	354	3,090	5,670	354	152	173	1,330	723	99
28	18	66	246	338	1,920	3,900	358	152	167	690	531	102
29	18	58	231	322		2,580	322	137	209	560	1,890	128
30	14	53	195	307		1,920	292	131	1,020	464	723	182
31	14		195	276		1,560		125		400	432	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					133	14	47.5	0.078		0.09		
November					673	14	91.7	.147		.16		
December					510	46	200	.322		.37		
January					8,600	276	1,352	2.17		2.50		
February					3,930	260	602	.968		1.01		
March					19,200	528	2,866	4.61		5.32		
April					1,300	292	549	.883		.99		
May					338	125	225	.362		.42		
June					4,130	110	828	1.35		1.48		
July					3,200	188	835	1.34		1.54		
August					5,560	158	1,008	1.62		1.87		
September					789	99	215	.346		.39		
The year					19,200	14	740	1.19		16.14		

## Pascagoula River at Merrill, Miss.

Location.- Staff gage in T. 1 S., R. 7 W., St. Stephens base and meridian, at highway bridge half a mile below confluence of Leaf and Chickasawhay Rivers and half a mile west of Merrill. Zero of gage is 24.1 feet above mean sea level.

Drainage area.- 6,600 square miles.

Records available.- December 1930 to September 1934.

Extremes.- Maximum discharge during year, 43,800 second-feet Mar. 8 or 9 (gage height, 23.05 feet, from flood marks); minimum, 1,400 second-feet Nov. 18-20 (gage height, 3.24 feet).

1930-34: Maximum discharge, 55,000 second-feet Apr. 16, 1933 (gage height, 23.70 feet); minimum, 1,000 second-feet Oct. 30, Nov. 4, 8-12, 1931 (gage height, 2.70 feet).

Remarks.- Records good except those for period of shifting control, Sept. 1-30, which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	1,540	1,610	2,000	4,240	19,300	11,600	4,900	4,060	2,330	7,270	6,810
2	1,680	1,540	1,540	2,170	6,070	18,600	10,800	4,800	3,790	2,250	9,550	6,270
3	1,680	1,540	1,540	2,500	6,590	20,300	9,100	4,610	4,430	2,680	10,800	5,480
4	1,680	1,540	1,610	3,000	5,870	28,200	7,390	4,520	4,800	3,970	11,300	4,430
5	1,680	1,540	1,610	3,530	5,380	33,000	6,170	4,240	4,330	4,620	11,000	2,580
6	1,680	1,540	1,680	3,610	5,190	37,600	5,460	5,280	4,330	7,390	8,960	2,080
7	1,680	1,540	1,840	4,990	4,090	41,700	5,090	10,800	4,330	10,500	6,370	2,410
8	1,760	1,540	2,000	7,750	4,330	45,800	4,590	13,900	4,430	10,500	5,190	2,170
9	1,760	1,540	2,170	8,400	4,060	42,700	4,890	13,300	4,430	13,500	4,330	2,080
10	1,610	1,470	2,330	7,750	4,610	39,900	5,780	12,000	4,240	15,100	3,790	1,920
11	1,540	1,470	2,580	6,810	5,380	35,100	6,700	10,200	4,060	16,100	3,970	1,840
12	1,540	1,470	2,660	5,870	11,300	29,200	7,270	9,260	3,790	16,700	3,970	1,760
13	1,540	1,470	2,580	5,380	17,400	24,600	7,390	8,960	3,790	15,700	4,150	1,680
14	1,470	1,470	2,330	4,990	19,100	21,200	6,590	7,630	3,790	14,000	4,430	1,610
15	1,470	1,470	2,250	4,610	17,800	17,600	5,780	6,920	3,440	12,300	3,700	1,610
16	1,470	1,470	2,170	4,150	15,300	11,600	6,680	7,750	3,090	9,400	3,180	1,610
17	1,540	1,470	2,080	3,790	12,600	8,270	11,300	8,820	2,830	5,680	3,000	1,610
18	1,540	1,400	2,500	3,530	11,000	7,030	9,700	11,400	2,750	4,430	2,830	2,080
19	1,540	1,400	3,350	3,260	11,100	6,700	7,510	8,820	2,750	4,700	2,500	2,170
20	1,540	1,400	3,180	3,180	11,800	6,810	6,700	6,590	2,920	5,870	2,410	2,410
21	1,540	1,470	2,830	3,180	10,300	7,030	6,680	5,480	2,920	6,070	2,580	2,330
22	1,540	1,470	2,800	3,260	9,260	7,030	11,000	4,890	3,000	5,380	2,920	2,000
23	1,610	1,680	2,330	3,260	10,600	6,810	10,200	4,430	3,090	4,890	4,330	1,920
24	1,760	1,680	2,170	3,180	11,000	6,590	8,270	4,330	2,830	4,330	7,390	2,250
25	1,920	1,680	2,080	3,440	9,260	6,170	6,810	4,890	2,580	3,790	9,260	2,250
26	1,920	1,680	2,000	4,700	9,260	5,870	5,780	5,680	2,330	3,260	9,700	2,250
27	1,760	1,610	2,000	4,990	14,000	8,540	4,990	5,190	2,410	2,750	9,700	2,580
28	1,680	1,680	1,920	4,610	18,000	12,000	4,520	7,150	2,410	2,580	9,400	2,660
29	1,680	1,680	1,920	4,060	13,300	4,700	5,170	6,170	2,330	2,500	10,300	2,410
30	1,680	1,610	1,920	3,610	13,000	4,700	4,190	4,700	2,410	2,830	8,820	2,250
31	1,610		1,920	3,260	12,300			4,240		3,880	7,270	
Month	Maximum					Minimum			Mean		Per square mile	Run-off in inches
October	1,920					1,470			1,638		0.248	0.29
November	1,680					1,400			1,635		.253	.26
December	3,350					1,540			2,166		.328	.38
January	8,400					2,000			4,285		.649	.75
February	19,100					4,060			9,845		1.49	1.55
March	43,800					6,370			19,080		2.99	3.33
April	11,600					4,520			7,295		1.11	1.24
May	13,900					4,240			7,153		1.08	1.24
June	4,800					2,330			3,423		.519	.58
July	16,700					2,250			7,092		1.07	1.23
August	11,300					2,410			6,270		.950	1.10
September	6,810					1,610			2,584		.392	.44
The year.	43,800					1,400			6,026		.913	12.39

## Pearl River at Edinburg, Miss.

Location.- Staff gage in T. 11 N., R. 9 E. Choctaw meridian, at new highway bridge at Edinburg. Zero of gage is 341.57 feet above mean sea level.

Drainage area.- 898 square miles.

Records available.- August 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 10,500 second-feet Mar. 7 (gage height, 23.40 feet); minimum, 16 second-feet Oct. 14, 15 (gage height, 2.42 feet).

1928-34: Maximum discharge, 19,600 second-feet Dec. 14, 1932 (gage height, 26.12 feet); minimum, 6 second-feet Oct. 27, 1931; minimum gage height, 1.63 feet Sept. 8, 1929.

Maximum stage known, 29.0 feet Mar. 1, 1902 (discharge not determined).

Remarks.- Records good except those for period Aug. 5-11 (gage heights estimated), which are fair.

## Discharge, in second-feet, 1935-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	40	84	122	187	1,180	860	145	145	628	900	211
2	43	40	84	128	224	1,650	840	139	128	362	540	263
3	36	50	112	122	211	3,970	820	128	175	187	290	263
4	30	54	122	128	199	4,790	820	106	199	112	211	250
5	31	40	106	145	187	6,820	820	95	175	58	187	237
6	39	40	276	163	175	9,480	800	134	163	969	175	224
7	37	46	540	237	187	10,500	840	224	128	3,580	318	187
8	33	46	472	250	187	9,180	840	276	329	5,560	472	145
9	31	44	318	263	187	7,530	780	199	610	7,530	362	112
10	26	42	250	263	224	5,880	610	224	408	7,530	199	84
11	20	38	237	224	237	4,720	489	199	199	6,820	163	42
12	18	38	250	263	347	3,760	424	224	151	5,880	184	22
13	17	38	290	263	362	2,570	362	199	163	4,760	697	28
14	16	48	304	290	408	1,790	318	220	199	3,620	489	22
15	17	50	250	290	392	1,460	290	527	199	2,650	304	20
16	33	50	199	276	408	1,310	263	1,020	237	1,850	139	39
17	62	45	199	250	424	1,240	456	1,020	814	1,350	90	50
18	50	43	187	199	456	1,150	362	1,040	1,090	1,310	69	84
19	41	48	187	163	540	1,070	377	780	980	1,220	147	106
20	39	69	187	163	557	780	408	574	720	960	456	100
21	36	63	145	151	506	610	440	424	506	720	610	90
22	56	90	139	145	540	489	456	332	592	506	506	112
23	49	95	134	163	720	408	440	276	740	224	657	122
24	47	84	134	163	682	392	472	237	800	145	880	90
25	45	84	139	163	664	408	456	187	664	112	720	69
26	40	79	163	163	1,310	682	392	163	472	84	377	55
27	42	74	175	163	1,220	1,000	332	237	332	97	456	61
28	54	74	163	163	1,290	1,220	290	377	187	599	377	100
29	56	64	134	163		1,200	211	318	175	760	263	106
30	50	64	128	163		1,040	151	237	570	880	224	106
31	47		117	151		960		175		860	211	
Month				Maximum	Minimum	Mean	Per square mile		Run-off in inches			
October				62	16	37.9	0.042		0.05			
November				95	38	56.0	.062		.07			
December				540	64	201	.224		.26			
January				290	122	192	.214		.25			
February				1,310	175	465	.516		.54			
March				10,500	392	2,672	3.20		3.69			
April				880	151	515	.573		.64			
May				1,040	95	337	.375		.43			
June				1,090	128	408	.454		.51			
July				7,530	58	2,006	2.23		2.57			
August				880	69	373	.415		.48			
September				263	20	113	.126		.14			
The year				10,500	16	637	.709		9.63			

## Pearl River at Jackson, Miss.

Location.- Water-stage recorder in T. 5 N., R. 1 E. Choctaw meridian, at State highway bridge at Jackson. Zero of gage is 234.96 feet above mean sea level. Prior to Sept. 14, 1934, staff gage with same datum at same location.

Drainage area.- 3,100 square miles.

Records available.- June 1901 to December 1913, August 1928 to September 1934.

Average discharge.- 15 years (1903-12, 1928-34), 3,660 second-feet.

Extremes.- Maximum discharge recorded during year, 18,600 second-feet Mar. 12, 13 (gage height, 28.00 feet); minimum discharge, 234 second-feet Nov. 17, 18; minimum gage height, 1.70 feet Nov. 18.  
1901-13, 1928-34: Maximum discharge, 60,000 second-feet Dec. 19, 1932; maximum gage height, 37.20 feet Apr. 1, 1902; minimum discharge, 80 second-feet Oct. 26 to Nov. 2, 1904; minimum gage height, 0.20 foot Nov. 4, 5, 1911.

Remarks.- Records fair. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308	278	354	613	715	4,720	4,330	1,100	647	1,360	1,700	1,620
2	308	278	338	613	715	5,080	4,120	1,030	613	1,360	2,060	1,430
3	308	278	338	580	715	8,010	3,610	968	647	1,680	2,020	1,100
4	338	278	338	580	735	9,400	2,960	863	613	1,510	1,780	923
5	647	278	323	647	923	10,600	2,460	818	749	1,320	1,470	818
6	647	263	401	681	958	12,300	2,220	783	749	1,100	1,210	749
7	580	248	449	681	923	13,400	2,180	1,140	888	993	993	647
8	514	263	580	681	888	14,200	2,060	1,100	1,060	993	888	647
9	449	263	1,030	681	653	15,100	2,260	1,140	1,030	1,430	783	580
10	370	263	1,540	818	783	16,600	2,340	1,140	1,210	2,500	681	547
11	338	248	1,620	958	818	17,900	2,300	1,210	1,660	3,450	783	547
12	308	248	1,510	1,100	993	18,600	2,220	1,170	1,940	4,200	888	514
13	293	248	1,390	1,060	1,100	18,600	2,060	1,140	1,820	5,000	958	514
14	278	248	1,240	1,030	1,390	17,200	1,820	1,060	1,390	5,810	853	514
15	263	248	1,170	923	1,740	15,900	1,620	1,100	1,060	6,410	749	514
16	248	248	1,030	888	1,980	13,800	1,430	1,100	1,060	7,160	1,360	681
17	278	234	958	888	1,940	11,700	1,360	1,060	6,160	7,610	1,430	613
18	278	234	888	853	1,860	9,490	1,210	1,360	7,660	7,810	1,140	514
19	263	248	888	853	2,300	7,410	1,240	1,820	8,380	7,660	1,140	481
20	263	248	853	783	2,100	5,130	1,820	2,060	8,910	6,910	888	547
21	278	248	783	715	2,060	3,240	2,220	1,900	8,840	5,440	783	647
22	370	263	783	715	2,100	2,590	2,300	1,660	8,210	3,730	923	681
23	481	278	783	681	2,220	2,340	1,980	1,390	7,310	2,750	1,320	681
24	481	308	818	681	2,300	2,140	1,820	1,240	6,210	2,100	2,300	647
25	417	338	818	715	2,750	2,140	1,820	1,280	4,900	1,660	2,460	715
26	370	401	749	749	3,530	2,540	1,740	1,430	3,690	1,360	2,220	715
27	338	481	681	783	3,820	4,200	1,540	1,360	2,910	1,140	1,860	783
28	308	449	647	783	4,380	4,590	1,470	1,100	2,100	993	1,900	853
29	323	417	613	715		4,640	1,320	923	1,740	993	1,940	853
30	323	385	613	715		4,510	1,210	783	1,620	958	1,820	783
31	293		613	681		4,580		715		1,240	1,740	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					647	248	363	0.117		0.13		
November					481	234	290	.094		.10		
December					1,620	323	811	.262		.30		
January					1,100	580	789	.248		.29		
February					4,380	715	1,701	.549		.57		
March					18,600	2,140	9,111	2.94		3.59		
April					4,530	1,210	2,101	.678		.76		
May					2,060	715	1,191	.384		.44		
June					8,910	613	3,193	1.03		1.15		
July					7,810	958	3,178	1.03		1.19		
August					2,460	681	1,388	.448		.52		
September					1,620	481	729	.235		.26		
The year.					18,600	234	2,077	.670		9.10		



## Pearl River near Columbia, Miss.

Location.- Water-stage recorder at highway bridge 1 mile west of Columbia, Marion County. Zero of gage is 82.00 feet above mean sea level. Prior to May 25, 1934, chain gage with datum 0.37 foot lower, at bridge 1 mile downstream.

Drainage area.- 5,690 square miles.

Records available.- August 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 26,900 second-feet Mar. 6 (gage height, 17.14 feet); minimum, 980 second-feet Nov. 10 (gage height, 1.83 feet).  
1928-34: Maximum discharge, 49,300 second-feet Dec. 27, 1932 (gage height, 23.12 feet, at former site); minimum, 788 second-feet Oct. 1, 1931 (gage height, 1.36 feet, at former site).

Remarks.- Records good except those for period May 11-24 (gage heights estimated), which are fair. Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,260	1,120	1,190	1,620	2,020	6,720	6,870	2,510	1,940	3,990	3,090	3,720
2	1,260	1,120	1,260	1,700	2,420	6,430	6,430	2,420	1,860	3,660	2,700	2,990
3	1,260	1,120	1,260	1,700	2,780	11,800	6,010	2,340	1,700	3,880	2,520	2,790
4	1,190	1,120	1,190	1,700	2,420	21,200	6,010	2,100	1,780	4,100	2,790	2,610
5	1,260	1,120	1,190	1,620	2,020	24,900	5,590	2,180	1,940	3,660	2,890	2,340
6	1,190	1,120	1,260	1,620	1,860	26,700	5,070	3,150	1,860	3,150	2,990	2,090
7	1,120	1,120	1,330	1,860	1,780	26,700	4,810	3,450	4,020	3,450	2,690	1,930
8	1,190	1,050	1,400	1,860	1,780	25,400	6,150	2,690	4,940	4,210	2,520	1,690
9	1,330	1,050	1,470	1,780	2,020	22,700	6,010	2,510	3,450	3,770	2,340	1,610
10	1,330	.980	1,400	1,700	2,340	20,000	5,330	2,610	3,050	3,660	2,180	1,540
11	1,260	1,050	1,400	1,620	2,690	17,400	5,070	2,960	2,600	3,150	1,930	1,460
12	1,260	1,050	1,540	1,700	5,460	16,100	4,570	3,150	2,340	3,050	1,770	1,460
13	1,190	1,050	2,020	1,780	7,320	15,700	4,100	3,050	2,260	3,560	1,850	1,380
14	1,190	1,050	2,260	1,940	5,690	16,100	3,880	3,050	2,610	4,210	1,850	1,310
15	1,120	1,050	2,260	1,940	3,660	16,300	3,770	2,600	2,690	4,810	1,930	1,310
16	1,120	1,050	2,260	2,020	3,150	17,000	3,460	2,510	2,690	5,460	2,010	1,380
17	1,120	1,050	2,100	1,940	3,350	17,400	3,150	2,340	2,790	6,150	1,930	1,460
18	1,120	1,050	2,020	1,860	4,330	17,700	3,150	2,340	8,680	6,870	1,770	1,380
19	1,120	1,050	1,940	1,940	4,690	17,700	3,360	2,180	15,400	7,620	1,550	1,380
20	1,120	1,050	1,860	1,940	5,070	17,700	3,990	2,510	19,000	8,240	2,090	1,380
21	1,120	1,120	1,860	2,020	5,070	15,700	3,350	2,340	20,700	8,650	2,260	1,310
22	1,190	1,120	1,860	1,860	4,940	12,800	3,260	2,340	19,500	8,350	2,180	1,240
23	1,120	1,190	1,780	1,780	5,730	9,040	3,260	2,780	15,700	7,750	2,090	1,240
24	1,120	1,120	1,700	1,700	5,730	6,010	3,260	3,450	12,000	6,460	2,610	1,930
25	1,120	1,120	1,620	1,780	5,730	4,810	3,260	3,450	10,200	5,010	3,190	2,620
26	1,190	1,050	1,700	1,700	7,170	4,810	3,050	3,450	9,040	3,940	3,290	2,010
27	1,190	1,050	1,700	1,700	9,880	6,720	2,870	2,780	7,920	3,290	3,720	1,930
28	1,260	1,120	1,700	1,700	8,400	8,720	2,870	2,420	7,470	2,990	3,830	1,770
29	1,190	1,120	1,620	1,700		9,200	2,870	2,340	6,720	2,790	3,500	2,010
30	1,190	1,190	1,540	1,700		8,400	2,690	2,260	4,940	2,890	4,410	2,700
31	1,120		1,540	1,700		7,770		2,100		3,090	4,650	
Month						Maximum	Minimum	Mean	Per square mile		Run-off in inches	
October						1,330	1,120	1,188	0.209		0.24	
November						1,190	980	1,087	.191		.21	
December						2,260	1,190	1,653	.291		.34	
January						2,020	1,620	1,780	.313		.36	
February						9,880	1,780	4,264	.749		.78	
March						26,700	4,810	14,680	2.58		2.97	
April						6,870	2,690	4,249	.747		.83	
May						3,450	2,100	2,654	.466		.54	
June						20,700	1,700	6,723	1.18		1.32	
July						8,650	2,790	4,705	.827		.95	
August						4,650	1,770	2,633	.463		.53	
September						3,720	1,240	1,562	.327		.36	
The year.						26,700	980	3,959	.696		9.43	

## Strong River at Dlo, Miss.

Location.- Staff gage in T. 2 N., R. 4 E. Choctaw meridian, half a mile above Gulf & Ship Island Railroad bridge and three-quarters of a mile southeast of Dlo.

Drainage area.- 361 square miles.

Records available.- August 1928 to September 1934.

Extremes.- Maximum discharge recorded during year, 6,830 second-feet Mar. 4 (gage height, 18.50 feet); minimum, 21 second-feet Oct. 5-18 (gage height, 2.30 feet).  
1928-34: Maximum discharge, 6,180 second-feet Mar. 15, 1929 (gage height, 21.20 feet); minimum, 16 second-feet Aug. 8, 9, 1933 (gage height, 2.25 feet).

Remarks.- Records good except those for period of backwater, June 17-19, and for period July 26-28 (discharge estimated), which are fair.

## Discharge, in second-feet, 1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	36	43	64	301	488	228	90	46	90	198	60
2	32	36	45	71	295	874	203	84	64	84	80	57
3	32	36	43	71	174	5,080	183	77	188	74	55	45
4	28	35	46	71	145	6,730	150	74	677	67	48	42
5	21	35	53	71	118	6,110	123	87	525	62	43	39
6	21	40	64	77	101	4,780	110	101	372	114	40	36
7	21	45	101	97	84	3,400	280	101	290	67	38	32
8	21	46	94	84	67	980	269	101	274	84	35	32
9	21	46	84	77	71	549	280	101	150	101	31	32
10	21	46	77	77	94	458	290	372	106	90	29	31
11	21	43	77	74	198	344	254	317	94	101	28	30
12	21	42	74	74	612	290	269	164	84	106	28	29
13	21	42	74	74	400	259	228	145	77	74	35	30
14	21	42	67	74	344	238	145	101	64	55	31	36
15	21	42	64	71	285	208	131	84	51	50	50	62
16	21	45	64	67	400	198	123	94	169	46	35	64
17	21	45	64	62	400	183	123	136	2,760	51	36	62
18	21	45	62	60	269	178	118	127	3,040	51	33	57
19	28	45	64	62	488	178	106	90	2,020	53	35	53
20	35	45	62	55	394	169	90	74	1,100	136	114	59
21	40	45	60	50	400	169	87	77	317	74	223	62
22	42	45	60	50	677	169	84	90	208	53	154	67
23	40	46	59	50	549	159	80	74	150	42	677	238
24	39	46	62	48	394	159	77	94	90	36	458	188
25	39	48	64	51	394	140	71	80	77	33	518	131
26	38	46	77	50	778	223	71	87	71	30	243	67
27	36	46	64	48	677	915	64	80	67	30	254	59
28	36	45	64	48	677	915	90	57	62	35	400	55
29	36	43	64	46		677	110	55	62	50	366	50
30	36	43	62	40		429	101	53	74	429	178	46
31	36		67	55		264		50		394	90	
Month					Maximum	Minimum	Mean	Per square mile		Run-off in inches		
October					42	21	29.0	0.080		0.09		
November					48	35	43.0	.119		.13		
December					101	43	66.3	.181		.21		
January					97	40	63.5	.176		.20		
February					778	67	350	.970		1.01		
March					6,730	140	1,158	3.21		3.70		
April					290	64	151	.418		.47		
May					372	50	106	.294		.34		
June					3,040	46	444	1.25		1.37		
July					429	30	89.1	.247		.28		
August					677	28	147	.407		.47		
September					238	29	61.7	.171		.19		
The year					6,730	21	225	.623		8.46		

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow were made at a number of other points, as shown by the following table:

Miscellaneous discharge measurements in South Atlantic slope and eastern Gulf of Mexico basins during the year ending September 30, 1934.

Date	Stream	Tributary to	Locality	Discharge Sec.-ft.
Oct. 24	Judith Creek.....	James River.....	In Bedford County, $\frac{1}{2}$ mile above mouth, near Reusens power plant, and near Lynchburg, Va.	2.22
July 6	North Fork of Hardware River.....	Hardware River...	100 feet above mouth of South Branch at Red Hill, Va.	5.4
6	.....do.....	.....do.....	50 feet above culvert under Southern Railway bridge at Red Hill, Va.	10.5
6	South Branch.....	North Fork of Hardware River.	100 feet above mouth, at Red Hill, Va.	5.1
6	Ivy Creek.....	South Fork of Rivanna River.	Highway bridge 1 mile below Chesapeake & Ohio Railway crossing near Ivy, Va.	7.4
May 16	Mechum Creek.....	Rivanna River....	Highway bridge opposite Chesapeake & Ohio Railway station at Campbell, near Cismont, Va.	9.41
20	.....do.....	.....do.....	.....do.....	6.73
16	.....do.....	.....do.....	1,000 feet below Chesapeake & Ohio Railway bridge, near Rugby station, and near Keswick, Va.	11.7
20	.....do.....	.....do.....	.....do.....	8.22
July 2	.....do.....	.....do.....	.....do.....	6.88
May 16	Unnamed tributary from right bank.	Mechum Creek.....	500 feet above Chesapeake & Ohio Railway bridge, $\frac{1}{2}$ mile above Rugby station, and near Keswick, Va.	1.65
20	.....do.....	.....do.....	.....do.....	.85
Dec. 21	Dan River.....	Roanoke River....	Former gage site in Pinnacles Gorge, 3 miles southeast of Pinnacles, Patrick County, 3 miles north of Kibler, Va., and 7 miles upstream from North Carolina State line.	34.6
Aug. 29	Colonels Creek...	Wateree River....	Highway bridge at Cooks Mountain, near Eastover, S. C.	22.5
Oct. 6	North Cove Fork..	Linville River...	3 miles north of Ashford, N. C.	1.26
3	St. Johns River..	Atlantic Ocean...	Bridge on State Highway 22 near Christmas, Fla.	2,780
Nov. 17	.....do.....	.....do.....	.....do.....	2,750
Oct. 2	.....do.....	.....do.....	Crow Bluff Bridge, near DeLand, Fla.	6,680
Nov. 18	.....do.....	.....do.....	.....do.....	5,030
Dec. 13	.....do.....	.....do.....	.....do.....	4,320
Nov. 10	Silver Spring River.	Oklawaha River..	Mouth, near Connor, Fla.....	1,030
Oct. 13	Istokpoga Canal..	Kissimmee River..	Bridge 3 miles northwest of Cornell, Fla.	740
Nov. 15	.....do.....	.....do.....	.....do.....	660
Dec. 6	.....do.....	.....do.....	.....do.....	622
Jan. 19	.....do.....	.....do.....	.....do.....	457
Feb. 15	.....do.....	.....do.....	.....do.....	365
Mar. 15	.....do.....	.....do.....	.....do.....	321
Oct. 13	Taylor Creek.....	Lake Okeechobee..	Former gaging station at Okeechobee, Fla.	55.2
Jan. 8	Lithia Spring....	Alafia River....	Near Lithia, Fla.....	48.8
15	Crystal Springs..	Hillsboro River..	Near Crystal Springs, Fla.....	67.2
Oct. 4	Withlacoochee River.	Gulf of Mexico...	Dunnellon, Fla.....	5,990
14	.....do.....	.....do.....	.....do.....	5,450
26	.....do.....	.....do.....	.....do.....	4,000
Nov. 3	.....do.....	.....do.....	.....do.....	3,070
Jan. 9	.....do.....	.....do.....	.....do.....	1,550
July 6	.....do.....	.....do.....	.....do.....	6,430
17	.....do.....	.....do.....	.....do.....	6,090
Apr. 10	No Name Branch...	Little River.....	4 miles west of Midway, Fla.....	.59
10	.....do.....	.....do.....	Below junction with another branch, 4 miles west of Midway, Fla.	1.08
Feb. 7	Blue Spring.....	Blue Spring Branch	Near Hamilton, Ga.....	.669
26	.....do.....	.....do.....	.....do.....	.651
26	.....do.....	.....do.....	.....do.....	.723
Mar. 21	.....do.....	.....do.....	.....do.....	.728
21	.....do.....	.....do.....	.....do.....	.714
Apr. 15	.....do.....	.....do.....	.....do.....	.764
May 15	.....do.....	.....do.....	.....do.....	.750
June 13	.....do.....	.....do.....	.....do.....	.630
July 12	.....do.....	.....do.....	.....do.....	.751
Aug. 3	.....do.....	.....do.....	.....do.....	.673
Sept. 5	.....do.....	.....do.....	.....do.....	.709
20	.....do.....	.....do.....	.....do.....	.706
Apr. 11	.....do.....	Chipola River....	75 feet below power plant near Marianna, Fla.	109
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