

Water-Supply Paper 662

PART II

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UNITED STATES
MENT PRINTING OFFICE
ASHINGTON • 1932

For sale by the Superintendent of Documents, Washington, D. C. - Price 25 cents (Paper cover)

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SURFACE WATER SUPPLY OF SOUTH ATLANTIC SLOPE AND EASTERN GULF OF MEXICO DRAIN- AGE BASINS, 1928

AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting records of measurements of flow made on streams in the United States during the year ending September 30, 1928.

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, 1895-1929

1895.....	\$12, 500. 00	1907.....	\$150, 000. 00	1921-1923 ..	\$180, 000. 00
1896.....	24, 500. 00	1908-1910 ..	100, 000. 00	1924-25....	170, 000. 00
1897-1899 ..	50, 000. 00	1911-1917 ..	150, 000. 00	1926.....	165, 000. 00
1900.....	70, 000. 00	1918.....	175, 000. 00	1927.....	151, 000. 00
1901-2.....	100, 000. 00	1919.....	148, 244. 10	1928.....	147, 000. 00
1903-1906 ..	200, 000. 00	1920.....	175, 000. 00	1929.....	270, 500. 00

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 9.

Measurements of stream flow have been made at about 5,480 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July, 1928, 1,830 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, and 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 a 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, 1927, and ending September 30, 1928. At the beginning of January in most parts of the United States much of the precipitation in

the preceding three months is stored, in the form of snow or ice, or in ponds, lakes, and swamps, or as underground water, and this stored 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 supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either

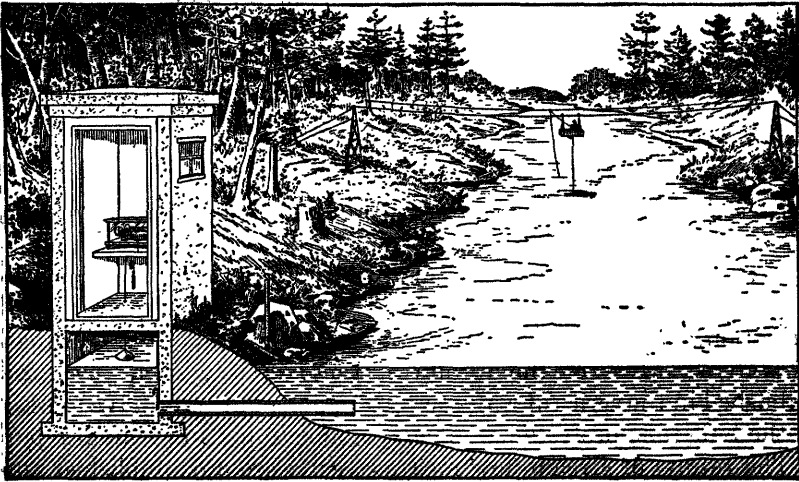


FIGURE 1.—Typical gaging station

from direct readings on a staff gage or chain 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.

From the discharge measurements rating tables are prepared that give the discharge for any stage. The application of the daily gage heights to these rating tables gives the discharge from which the monthly and yearly mean discharge is determined.

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 con-

cerning 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.

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.

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.

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 powers, 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 I. North Atlantic slope basins (St. John River to York River).

II. South Atlantic slope and eastern Gulf of Mexico basins (James River to the Mississippi).

III. Ohio River Basin.

IV. St. Lawrence River Basin.

V. Hudson Bay and upper Mississippi River Basins.

VI. Missouri River Basin.

VII. Lower Mississippi River Basin.

VIII. Western Gulf of Mexico basins.

IX. Colorado River Basin.

X. The Great Basin.

XI. Pacific slope basins in California.

XII. 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, Me., Statehouse.
Boston, Mass., 2500 Customhouse.
Hartford, Conn., 60 Washington Street.
Albany, N. Y., 506 Broadway-Arcade Building.
Trenton, N. J., 710 Trenton Trust Building.
Charlottesville, Va., Brooks Museum, University of Virginia.
South Charleston, W. Va., Naval Ordnance Plant.
Asheville, N. C., 210 Post Office Building.
Columbia, S. C., 801 National Loan & Exchange Bank Building.
Ocala, Fla., Post Office Building.
Tuscaloosa, Ala., Post Office Building.
Chattanooga, Tenn., 630 Power Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Indianapolis, Ind., 319 Federal Building.
Lansing, Mich., State Office Building.
Chicago, Ill., 1503 Consumers Building.
Madison, Wis., 337 N State Capitol.
St. Paul, Minn., 202 Old State Capitol.
Topeka, Kans., 23 Federal Building.
Rolla, Mo., Rolla Building, School of Mines and Metallurgy.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Capitol.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo., 403 Post Office Building.
Salt Lake City, Utah, 313 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, Federal Building.
Helena, Mont., 416 Power Block.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.
Los Angeles, Calif., 751 South Figueroa Street, room 510.
Honolulu, Hawaii, Territorial Office Building.

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

Stream-flow records have been obtained at about 5,480 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, 1901.
13th A, pt. 3....	Mean discharge in second-feet.....	1884 to Dec. 31, 1892.
14th A, pt. 2....	Monthly discharge (long-time records, 1871 to 1893).....	1888 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.....	1893 and 1894.
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).....	1895 and 1896.
W 15.....	Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas.....	1897.
W 16.....	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte, 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 and 1908.
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 461 to 464.....	do.....	1917.
W 471 to 484.....	do.....	1918.
W 501 to 514.....	do.....	1919 and 1920.
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.

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 1928. 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 for 1910 to 1920 for any station in the area covered by Part III 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.

SURFACE WATER SUPPLY, 1928, PART II

Numbers of water-supply papers containing results of stream measurements, 1899-1928

[For basins included see p. 4]

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII-A	XII-B	XII-C
1899	35	35, 36	36	36	36	36, 37	37	37	37, 38	38, 39	38, 39	38	38	38
1900	47, 48	48	48, 49	49	49	49, 50	50	50	50	51	51	51	51	51
1901	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902	82, 83	82, 83	83	83	83	84	84	84	85	85	85	85	85	85
1903	97	97, 98	98	98	98	99	99	99	100	100	100	100	100	100
1904	124, 125, 126	126, 127	128	129	128, 130	130, 131	131	132	133	133, 134	134	135	135	135
1905	165, 166, 167	167, 168	169	170	171	172	172	174	175, 177	176, 177	177	178	178	177, 178
1906	201, 202, 203	203, 204	205	206	207	208	208	210	211, 213	212, 213	213	214	214	214
1907-8	241	242	243	244	245	246	246	248	249	250, 251	251	252	252	252
1909	263	263	263	264	265	266	266	268	269	270, 271	271	272	272	272
1910	283	283	283	284	285	286	286	288	289	290	291	292	292	292
1911	303	303	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	332	332
1913	351	352	353	354	355	356	357	358	359	360	361	362	362	362
1914	381	382	383	384	385	386	387	388	389	390	391	392	392	392
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

* Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in Twenty-first Annual Report, Part IV.

! Loup and Platte Rivers near Columbus, Nebr., and all tributaries below junction with Platte.

* Tributaries of Mississippi from east.

* Lake Ontario and tributaries to St. Lawrence River proper.

* Hudson Bay only.

* New England rivers only.

* Hudson River to Delaware River, inclusive.

* Susquehanna River to Yackin River, inclusive.

* Platte and Kansas Rivers.

* Great Basin in California, except Truckee and Carson River Basins.

* Below junction with Gila.

* Rogue, Umpqua, and Siletz Rivers only.

* Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in Twenty-first Annual Report, Part IV.

! Loup and Platte Rivers near Columbus, Nebr., and all tributaries below junction with Platte.

* Tributaries of Mississippi from east.

* Lake Ontario and tributaries to St. Lawrence River proper.

* Hudson Bay only.

* New England rivers only.

* Hudson River to Delaware River, inclusive.

* Susquehanna River to Yackin River, inclusive.

* Platte and Kansas Rivers.

* Great Basin in California, except Truckee and Carson River Basins.

* Below junction with Gila.

* Rogue, Umpqua, and Siletz Rivers only.

COOPERATION

The work was carried on in Virginia in cooperation with the Conservation and Development Commission of Virginia, W. E. Carson, chairman, and in North Carolina in cooperation with the North Carolina Department of Conservation and Development, Wade H. Phillips, director.

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

The following organizations, corporations, municipalities, and private individuals also rendered financial assistance: In Virginia, the Virginia Military Institute, Virginia Electric & Power Co., Southside Power Co., Virginia Public Service Co., Appalachian Electric Power Co., Day & Zimmerman, engineers, J. R. Horsley, and Daniel Welsh; in North Carolina, the Carolina Power & Light Co., Tallassee Power Co., Roanoke River Power Co., Cliffside Mills, and the cities of Greensboro, High Point, Raleigh, Durham, Burlington, and Graham; in South Carolina, the Lexington Water Power Co., Columbia Railway & Navigation Co., and Broad River Power Co.; in Alabama, Georgia, and Florida, the Alabama Power Co., Crisp County, Ga., Columbus Electric & Power Co., West Florida Power Co., Florida Power Corporation, and Hill & Spencer.

DIVISION OF WORK

The data for stations in Virginia were collected and prepared for publication under the direction of J. J. Dirzulaitis, district engineer, assisted by O. D. Mussey, M. T. Thomson, F. F. Schrader, R. W. Sundstrom, N. B. Usler, A. R. Green, T. F. Hanly, W. S. Eisenlohr, Jr., and Sue F. Norris.

The data for stations in North Carolina and South Carolina were collected and prepared for publication under the direction of E. D. Burchard, district engineer, assisted by A. E. Johnson, Karl Jetter, L. J. Hall, F. M. Bell, H. W. Palm, H. A. Taylor, R. W. Sundstrom, A. G. Hely, and Mrs. Effie T. Workman.

The data for stations in Alabama, Georgia, and Florida were collected and prepared for publication under the direction of W. R. King and C. E. McCashin, district engineers, assisted by Warren Withee, P. E. Hanson, Penn Livingston, D. M. Corbett, J. L. Saunders, P. R. Speer, M. T. Thomson, W. S. Eisenlohr, jr., C. H. Prior, K. C. Tippy, E. J. Tripp, I. E. Anderson, Randolph Thrasher, J. W. Oxford, V. L. Scharnagel, Duncan Charlton, Mrs. Mary Sitton, and Miss A. L. Hardin.

The records were reviewed and the manuscript assembled by P. R. Speer.

GAGING-STATION RECORDS

JAMES RIVER BASIN

JACKSON RIVER AT BARBER, VA.

LOCATION.—Chain gage on Smiths highway bridge, half a mile from Barber, Alleghany County, and half a mile below Falling Spring Creek.

DRAINAGE AREA.—409 square miles.

RECORDS AVAILABLE.—April, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,380 second-feet May 1 (gage height, 8.95 feet); minimum, 89 second-feet Oct. 2 (gage height, 2.98 feet).
1925-1928: Maximum discharge, 6,850 second-feet Nov. 16, 1926 (gage height, 10.90 feet); minimum, 72 second-feet Aug. 28, 1925 (gage height, 2.80 feet).

Maximum stage known, about 25.6 feet March, 1913.

REMARKS.—Records good. Discharge estimated Jan. 29, Feb. 17, 18, and 20

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	102	158	247	990	288	382	712	3,770	288	712	147	546
2.....	91	158	274	764	288	348	662	2,160	274	546	182	420
3.....	105	182	874	662	274	348	546	1,430	260	482	170	503
4.....	147	302	764	440	274	317	482	1,050	247	382	195	503
5.....	170	332	764	440	288	274	440	874	234	332	182	382
6.....	122	288	764	440	274	274	400	764	461	302	158	382
7.....	115	247	764	382	288	247	364	712	712	260	147	364
8.....	113	274	2,070	332	503	247	614	614	524	234	143	382
9.....	105	400	1,570	332	932	260	614	546	482	221	134	302
10.....	124	364	1,050	302	712	288	932	482	400	482	2,350	274
11.....	108	364	818	288	614	260	1,570	440	400	482	712	234
12.....	382	382	712	288	614	260	1,360	400	440	382	614	234
13.....	2,870	332	662	260	482	274	1,290	264	400	662	382	208
14.....	990	288	614	260	364	274	1,110	332	348	1,050	317	208
15.....	591	260	662	260	932	274	990	302	317	818	274	221
16.....	440	247	764	247	1,360	274	874	302	274	524	482	274
17.....	364	440	712	247	990	302	662	288	260	440	2,070	221
18.....	461	2,650	662	260	818	348	614	317	247	364	1,430	185
19.....	400	1,290	591	524	712	420	546	302	260	302	990	274
20.....	364	874	546	2,160	614	440	482	288	874	274	712	1,500
21.....	332	662	482	990	482	614	420	274	874	247	503	874
22.....	288	524	440	874	482	1,050	382	874	712	234	440	461
23.....	260	440	382	364	568	1,720	420	546	503	208	382	364
24.....	247	382	317	482	662	1,230	546	461	524	195	264	302
25.....	221	348	274	818	568	1,290	712	461	1,170	182	332	274
26.....	208	302	260	662	503	1,110	614	440	990	170	302	247
27.....	195	288	247	568	440	874	764	482	662	158	400	234
28.....	182	274	247	524	440	874	990	440	482	170	440	221
29.....	182	247	288	460	440	614	1,230	382	524	168	382	208
30.....	170	247	302	382	-----	712	3,200	348	662	147	332	247
31.....	136	-----	712	332	-----	764	-----	317	-----	143	614	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	2,870	91	341	0.834	0.96
November.....	2,650	158	452	1.11	1.24
December.....	2,070	247	640	1.56	1.80
January.....	2,160	247	547	1.29	1.49
February.....	1,360	274	559	1.37	1.48
March.....	1,720	247	547	1.34	1.64
April.....	3,200	364	818	2.00	2.23
May.....	3,770	274	670	1.64	1.89
June.....	1,170	234	494	1.21	1.35
July.....	1,050	143	363	.888	1.02
August.....	2,350	134	525	1.28	1.48
September.....	1,500	195	369	.902	1.01
The year.....	3,770	91	525	1.28	17.39

JAMES RIVER AT LICK RUN, VA.

LOCATION.—Chain gage on highway bridge at Lick Run, Botetourt County, three-fourths mile below junction of Cowpasture and Jackson Rivers.

DRAINAGE AREA.—1,370 square miles.

RECORDS AVAILABLE.—April, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 14,200 second-feet Oct. 13 (gage height, 11.15 feet); minimum, 245 second-feet Oct. 2 and 3 (gage height, 1.82 feet).

1925–1928: Maximum discharge, 27,000 second-feet Dec. 26, 1926 (gage height, 17.70 feet); minimum, 192 second-feet Aug. 31, 1925 (gage height, 1.64 feet).

Flood of September, 1877, reached a stage of 29.1 feet and that of March, 1913, reached a stage of 27.2 feet.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	265	438	670	3,520	1,070	1,030	2,300	11,000	850	1,660	348	2,160
2.....	245	415	850	2,030	955	955	1,800	6,730	755	1,290	370	1,550
3.....	285	460	4,010	1,340	885	850	1,600	4,350	725	1,240	392	2,300
4.....	438	560	3,520	1,150	850	815	1,440	3,200	698	1,200	392	2,440
5.....	560	818	3,040	1,110	818	785	1,240	2,580	670	955	415	1,660
6.....	392	725	4,010	1,110	850	755	1,150	2,160	698	785	392	2,030
7.....	325	642	3,200	1,070	885	698	1,150	2,160	1,900	698	370	2,160
8.....	305	642	6,050	990	1,150	670	1,440	2,030	1,290	725	348	1,550
9.....	325	1,240	6,560	955	2,730	698	1,780	1,780	930	560	348	1,240
10.....	325	1,340	3,940	885	2,440	725	1,550	1,660	920	2,030	348	990
11.....	325	1,150	2,880	850	2,030	755	1,660	1,440	990	1,900	1,780	885
12.....	1,030	1,070	2,300	785	1,780	698	6,390	1,290	990	1,340	1,550	755
13.....	14,000	920	2,030	755	1,440	698	5,030	1,150	885	2,440	1,560	698
14.....	4,130	818	2,030	725	1,440	698	3,840	1,030	850	4,010	920	642
15.....	2,160	725	2,030	698	4,520	698	3,040	955	735	3,040	698	615
16.....	1,240	698	2,300	670	3,840	785	2,440	920	698	1,780	3,840	698
17.....	1,070	1,660	3,520	670	2,880	920	2,030	885	615	1,200	9,430	725
18.....	2,300	9,610	2,880	670	2,440	1,240	1,660	955	588	1,030	5,370	615
19.....	1,440	4,860	2,300	2,300	2,030	1,290	1,440	955	588	818	3,520	990
20.....	1,240	2,880	1,660	8,350	1,660	1,290	1,340	885	1,550	725	2,300	11,000
21.....	1,110	2,030	1,550	4,010	1,240	2,030	1,200	818	2,030	642	1,550	5,200
22.....	885	1,550	1,340	2,580	1,150	2,880	1,150	2,880	1,660	698	1,440	2,730
23.....	785	1,340	1,150	2,300	1,240	4,860	1,150	3,360	1,240	588	1,660	1,780
24.....	698	1,150	1,030	1,900	1,550	5,030	2,030	1,900	1,340	535	1,150	1,340
25.....	642	990	885	2,300	1,550	3,840	2,160	1,340	1,660	485	1,440	1,110
26.....	588	885	818	2,440	1,340	3,200	1,780	1,660	2,300	438	1,660	920
27.....	535	818	755	1,900	1,200	2,440	1,900	1,440	1,780	460	3,840	785
28.....	510	755	725	1,550	1,150	2,030	5,540	1,290	1,240	438	2,730	725
29.....	485	725	785	1,150	1,110	1,780	5,540	1,150	1,030	415	1,780	670
30.....	460	698	850	1,200	-----	2,580	11,400	1,030	1,200	392	1,290	755
31.....	460	-----	1,240	1,200	-----	3,040	-----	920	-----	370	1,110	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	14,000	245	1,280	0.934	1.08
November.....	9,610	415	1,420	1.04	1.16
December.....	6,560	670	2,280	1.66	1.91
January.....	8,350	670	1,720	1.26	1.45
February.....	4,520	818	1,660	1.21	1.30
March.....	5,030	670	1,640	1.20	1.33
April.....	11,400	1,150	2,610	1.91	2.13
May.....	11,000	818	2,130	1.56	1.80
June.....	2,300	588	1,120	.818	.91
July.....	4,010	370	1,130	.825	.95
August.....	9,430	348	1,750	1.28	1.48
September.....	11,000	615	1,720	1.28	1.41
The year.....	14,000	245	1,700	1.24	16.96

JAMES RIVER AT BUCHANAN, VA.

LOCATION.—Water-stage recorder at highway bridge near Chesapeake & Ohio Railway station at Buchanan, Botetourt County.

DRAINAGE AREA.—2,080 square miles.

RECORDS AVAILABLE.—August, 1895, to September, 1928.

EXTREMES.—Maximum discharge during year, 39,000 second-feet Aug. 16 (gage height, 16.53 feet); minimum, 500 second-feet Oct. 3 (gage height, 2.00 feet).

1895-1928: Maximum gage height, 31 feet Mar. 27, 1913 (discharge not determined); minimum discharge, 275 second-feet Aug. 20-22 and Sept. 12-14, 1900 (gage height, 1.7 feet). A discharge of 260 second-feet reported on Apr. 17 and May 2, 1896, is subject to error owing to unreliability of the record prior to 1898.

REMARKS.—Records excellent, except those from May 31 to June 4, which are fair.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	512	766	1,110	4,400	2,090	1,800	3,420	13,500	1,680	2,010	591	2,750
2	512	750	1,980	3,740	1,870	1,680	2,910	10,600	1,580	2,010	585	2,910
3	500	743	6,950	2,370	1,740	1,530	2,600	6,830	1,500	1,800	561	3,380
4	524	766	7,930	2,010	1,590	1,410	2,220	5,020	1,410	1,800	550	4,100
5	554	884	5,830	1,740	1,540	1,350	2,010	4,080	1,360	1,490	634	3,100
6	602	1,050	6,290	1,740	1,540	1,290	1,870	3,510	1,130	1,200	634	5,350
7	634	983	5,830	1,900	1,580	1,230	1,800	3,330	1,750	1,040	628	6,480
8	648	974	7,440	1,670	1,940	1,160	1,940	3,330	2,010	924	591	4,080
9	620	1,310	11,300	1,550	3,420	1,160	2,300	3,240	1,580	830	550	2,990
10	620	2,220	7,000	1,620	4,200	1,220	2,300	3,080	1,370	1,120	522	2,370
11	602	1,870	4,820	1,430	3,510	1,280	2,370	2,750	1,340	2,580	2,180	1,940
12	1,200	1,740	3,700	1,340	3,080	1,280	6,040	2,440	1,380	2,300	2,430	1,670
13	14,900	1,490	3,240	1,300	2,670	1,240	7,430	2,220	1,420	2,240	2,440	1,470
14	8,430	1,310	2,910	1,230	2,440	1,220	5,720	2,010	1,440	2,840	1,670	1,290
15	3,510	1,160	2,830	1,300	3,900	1,200	4,720	1,800	1,400	4,270	1,150	1,600
16	2,300	1,070	2,990	1,160	5,830	1,290	3,700	1,670	1,170	2,830	17,400	2,940
17	1,800	1,750	4,510	1,120	4,620	1,670	3,080	1,670	1,040	2,010	29,200	2,010
18	1,940	11,100	4,930	1,100	3,800	2,150	2,670	1,800	940	1,670	13,400	1,600
19	2,010	8,450	3,800	3,770	3,330	2,440	2,440	1,870	890	1,410	6,870	3,890
20	1,940	4,820	2,990	11,600	2,750	2,440	2,220	1,740	936	1,180	4,540	21,300
21	1,740	3,420	2,520	9,160	2,440	2,990	2,010	1,620	2,480	1,060	3,160	12,800
22	1,470	2,750	2,300	5,370	2,150	3,900	1,870	2,160	2,220	974	2,750	6,340
23	1,300	2,300	1,940	4,000	2,080	5,110	1,870	4,280	1,800	966	3,570	4,300
24	1,180	1,940	1,740	3,330	2,300	6,940	2,300	3,490	1,630	864	2,750	3,160
25	1,070	1,740	1,570	3,700	2,440	5,770	2,910	2,520	1,740	798	2,600	2,520
26	1,020	1,540	1,420	4,300	2,300	4,930	2,600	2,300	2,450	743	2,370	2,080
27	974	1,410	1,310	3,420	2,080	4,100	2,600	2,440	2,520	701	7,290	1,800
28	932	1,310	1,230	2,990	1,940	3,420	9,380	2,220	1,870	694	5,540	1,580
29	856	1,260	1,300	2,440	1,870	2,910	9,590	2,010	1,580	674	3,420	1,440
30	814	1,200	1,320	2,080	-----	2,790	11,800	1,800	1,640	648	2,520	1,520
31	790	-----	1,620	2,220	-----	4,050	-----	1,720	-----	622	2,080	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	14,900	500	1,820	0.875	1.01
November	11,100	743	2,140	1.03	1.15
December	11,300	1,110	3,790	1.81	2.09
January	11,600	1,100	2,940	1.41	1.63
February	5,830	1,540	2,660	1.28	1.38
March	6,940	1,160	2,480	1.19	1.37
April	11,800	1,800	3,690	1.77	1.98
May	13,500	1,620	3,320	1.60	1.84
June	2,520	890	1,580	.760	.85
July	4,270	622	1,500	.721	.83
August	29,200	522	4,040	1.94	2.24
September	21,300	1,290	3,820	1.84	2.05
The year	29,200	500	2,810	1.35	18.42

JAMES RIVER AT SALT CREEK, VA.

LOCATION.—Water-stage recorder at Bald Eagle dam site, three-fourths mile above Salt Creek post office, Amherst County, and 2½ miles below Pedlar River.

DRAINAGE AREA.—3,250 square miles.

RECORDS AVAILABLE.—December, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 55,800 second-feet Aug. 16 (gage height, 16.8 feet); minimum, 460 second-feet Oct. 3 (gage height, 1.72 feet). 1926-1928: Maximum discharge, that of Aug. 16, 1928; minimum that of Oct. 3, 1927.

Maximum stage known, about 29 feet November, 1877, and March, 1913.

REMARKS.—Records excellent. Discharge estimated Nov. 18 and 19. Operations at the numerous dams upstream cause diurnal fluctuations at the gage.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	703	1,360	1,900	5,000	3,260	3,040	5,410	18,400	2,260	2,620	1,020	4,340
2	676	1,230	2,700	5,850	3,040	2,820	4,600	15,300	2,110	3,150	1,000	5,130
3	1,950	1,210	9,980	3,850	2,820	2,520	4,090	10,000	1,830	2,620	1,070	5,130
4	2,770	1,330	12,400	3,730	2,500	2,280	3,730	7,500	2,150	2,500	910	6,000
5	1,680	1,670	9,040	3,380	2,500	2,420	3,260	3,850	2,000	2,520	920	5,560
6	1,400	1,650	9,040	3,610	2,480	2,220	3,040	5,410	2,260	2,080	1,160	13,000
7	1,320	1,810	9,040	3,150	2,380	2,190	3,040	5,130	2,000	1,750	1,040	11,700
8	1,010	1,590	12,400	3,040	3,850	1,990	3,260	4,860	2,930	1,560	1,000	8,420
9	981	1,850	16,800	2,930	6,150	1,970	3,730	4,860	2,620	1,410	1,010	6,150
10	1,000	2,620	11,300	2,720	6,750	2,000	3,850	4,600	2,220	2,150	990	4,730
11	981	2,820	8,110	2,520	5,700	2,000	4,090	4,340	2,130	3,850	3,360	3,850
12	1,830	2,500	6,600	2,210	5,000	2,150	8,730	3,730	2,110	3,820	5,850	3,380
13	16,400	2,280	5,850	2,220	4,470	2,060	11,300	3,500	2,150	3,610	5,000	3,040
14	14,800	2,110	5,270	2,150	4,220	1,950	9,040	3,260	2,170	4,220	3,610	2,620
15	6,150	1,860	4,860	1,900	6,300	1,920	7,500	3,040	2,080	5,850	2,620	2,520
16	3,850	1,780	5,000	2,000	8,420	1,950	6,300	2,820	1,950	4,090	20,500	3,890
17	3,260	4,710	5,850	1,880	7,200	2,220	5,270	2,720	1,670	3,040	44,600	3,730
18	4,860	13,800	6,900	1,810	6,150	2,820	4,470	2,720	1,590	2,520	21,100	2,930
19	4,730	10,700	6,150	3,210	5,270	3,500	4,220	2,820	1,600	2,150	11,300	4,000
20	4,340	8,040	4,860	10,800	4,600	3,610	3,850	2,620	1,650	1,750	7,500	23,000
21	3,610	5,560	4,340	12,000	3,970	3,610	3,380	2,620	2,880	1,500	5,560	21,000
22	3,040	4,600	3,850	7,800	3,610	4,600	3,260	2,420	3,500	1,440	4,860	10,700
23	2,520	3,850	3,040	5,700	3,500	5,850	3,260	6,160	3,040	1,520	5,130	7,120
24	2,360	3,260	3,150	5,000	3,730	8,110	3,850	5,700	2,840	1,360	4,860	5,410
25	1,950	3,040	3,040	5,700	3,850	8,110	4,730	3,850	2,840	1,180	4,860	4,340
26	1,800	2,720	2,520	6,150	3,610	7,200	4,730	3,610	3,380	1,120	5,600	3,610
27	1,720	2,420	2,620	5,560	3,500	6,150	5,410	3,610	3,610	1,060	8,930	3,260
28	1,590	2,240	2,220	4,730	3,150	5,130	13,500	3,380	3,040	1,300	9,360	2,930
29	1,470	2,080	2,240	3,850	3,040	4,220	13,800	2,930	2,520	1,050	6,260	2,500
30	1,890	2,020	2,440	3,390	-----	4,090	15,300	2,720	2,620	1,040	4,730	2,720
31	1,430	-----	2,720	3,380	-----	6,150	-----	2,520	-----	930	3,970	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	16,400	676	3,150	0.969	1.12
November	13,300	1,210	3,270	1.01	1.13
December	16,800	1,900	6,010	1.85	2.13
January	12,000	1,810	4,230	1.30	1.50
February	8,420	2,380	4,310	1.33	1.43
March	8,110	1,920	3,580	1.10	1.27
April	15,300	3,040	6,800	1.73	1.99
May	18,400	2,420	4,950	1.52	1.75
June	3,610	1,590	2,370	.729	.81
July	5,850	930	2,250	.702	.81
August	44,600	910	6,440	1.95	2.28
September	23,000	2,500	6,220	1.91	2.13
The year	44,600	676	4,390	1.35	18.35

JAMES RIVER AT BENT CREEK, VA.

LOCATION.—Chain gage on highway bridge at Bent Creek, Appomattox County, 50 feet below Bent Creek and 1 mile below Gladstone.

DRAINAGE AREA.—3,670 square miles.

RECORDS AVAILABLE.—March, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 74,000 second-feet Aug. 17 (gage height, 18.80 feet); minimum, 694 second-feet Aug. 6 (gage height, 2.76 feet).

1925-1928: Maximum discharge, that of Aug. 17, 1928; minimum, 350 second-feet Aug. 31, 1925 (gage height, 2.35 feet).

REMARKS.—Records good above 1,200 second-feet and poor below, owing to regulation by power plant upstream.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	828	1,890	2,170	4,020	4,020	3,580	6,160	21,100	2,560	2,760	1,070	4,240
2.....	932	1,710	3,800	6,990	3,580	3,370	5,160	18,800	2,380	3,580	1,220	5,900
3.....	1,140	1,540	8,800	5,160	3,160	3,160	4,690	12,200	2,360	1,980	1,450	6,160
4.....	10,100	1,620	15,600	4,460	3,160	2,760	4,020	9,120	1,890	2,460	1,140	6,430
5.....	3,370	1,890	12,900	4,020	2,360	3,160	3,580	7,280	2,170	3,370	1,000	6,430
6.....	1,540	2,080	10,800	3,800	3,370	2,560	3,370	5,900	2,460	2,260	1,140	18,000
7.....	1,890	1,980	1,0800	3,580	2,760	2,560	3,370	5,650	2,460	2,080	1,640	15,200
8.....	1,620	2,260	12,600	3,580	5,400	2,560	3,160	5,400	2,960	1,980	1,070	10,800
9.....	1,290	2,260	18,800	3,580	6,990	2,560	3,800	5,160	3,160	1,620	1,140	7,580
10.....	1,370	2,460	14,800	3,370	8,180	2,260	4,240	5,160	2,960	2,080	1,220	5,900
11.....	1,220	3,580	9,770	2,960	6,990	2,760	4,920	4,690	2,360	3,800	11,500	4,980
12.....	1,370	3,160	7,880	2,960	5,900	2,560	7,880	4,240	2,360	4,240	11,500	4,240
13.....	14,000	2,960	6,710	2,460	5,400	2,360	13,600	3,800	2,760	3,800	5,900	3,580
14.....	23,400	2,260	5,900	2,960	5,160	2,560	10,400	3,800	2,360	5,160	4,920	3,580
15.....	8,490	2,560	5,400	2,360	6,710	2,360	8,490	3,160	2,360	5,400	3,370	2,960
16.....	5,400	2,760	5,650	2,260	9,440	2,460	6,990	3,160	2,080	5,400	6,430	3,370
17.....	4,020	2,960	5,650	2,260	8,800	2,560	5,900	3,160	1,980	3,800	61,400	5,900
18.....	3,800	13,600	7,580	2,080	7,280	3,800	5,160	3,160	1,620	3,160	31,000	5,900
19.....	5,900	17,600	6,990	2,760	6,160	4,460	4,690	2,960	1,540	2,560	14,800	3,370
20.....	5,160	9,440	5,650	8,490	5,650	4,240	4,240	3,160	1,450	2,080	9,440	20,600
21.....	4,690	6,990	4,920	14,800	4,690	4,020	4,020	2,960	1,890	1,800	6,710	27,800
22.....	4,020	5,160	4,690	9,770	4,460	4,690	3,370	2,760	3,300	1,540	5,900	14,400
23.....	3,160	4,690	4,020	6,710	4,460	6,430	4,240	4,690	3,580	1,620	5,900	8,880
24.....	2,960	4,240	3,370	5,650	4,240	8,800	4,020	6,160	2,760	1,540	5,650	6,430
25.....	2,460	3,370	3,580	6,990	4,020	8,800	4,690	4,460	2,760	1,540	5,650	5,160
26.....	2,260	3,160	2,960	6,990	4,020	7,580	5,160	3,580	3,370	1,450	7,580	4,690
27.....	2,260	2,960	2,760	6,710	4,020	6,990	6,160	4,020	3,580	1,540	10,100	3,890
28.....	1,890	2,760	2,760	5,650	3,580	5,650	16,400	3,580	3,580	1,450	11,500	3,370
29.....	1,980	2,260	2,360	4,460	3,580	5,160	16,800	3,370	2,760	1,370	7,580	4,020
30.....	1,980	2,360	1,980	4,460	-----	4,460	15,200	2,960	2,960	1,140	5,650	3,580
31.....	1,800	-----	2,960	4,020	-----	5,400	-----	3,160	-----	1,290	5,160	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	23,400	828	4,070	1.11	1.23
November.....	17,600	1,540	3,950	1.08	1.29
December.....	18,800	1,980	6,920	1.89	2.18
January.....	14,800	2,080	4,850	1.32	1.62
February.....	9,440	2,360	5,090	1.39	1.50
March.....	8,800	2,260	4,080	1.11	1.28
April.....	16,800	3,160	6,460	1.76	1.96
May.....	21,100	2,760	5,570	1.52	1.75
June.....	3,800	1,450	2,580	.703	.78
July.....	5,400	1,140	2,580	.703	.81
August.....	61,400	1,000	8,050	2.19	2.32
September.....	27,800	2,960	7,570	2.06	2.30
The year.....	61,400	828	5,150	1.40	19.08

JAMES RIVER AT SCOTTSVILLE, VA

LOCATION.—Chain gage on highway bridge at Scottsville, Albemarle County, 7 miles above Hardware River.

DRAINAGE AREA.—4,570 square miles.

RECORDS AVAILABLE.—February, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 75,600 second-feet Aug. 17 (gage height, 20.92 feet); minimum, 855 second-feet Oct. 1 (gage height, 2.22 feet). 1925-1928: Maximum discharge, that of Aug. 17, 1928; minimum, 400 second-feet Sept. 30, 1925 (gage height, 1.62 feet).

REMARKS.—Records good except those for low water, which are fair, owing to regulation at power plants upstream.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	1,020	2,150	2,710	3,860	4,550	4,370	6,560	20,300	3,350	3,350	1,400	5,810
2.....	960	2,280	3,350	5,810	4,910	4,370	5,990	20,000	2,710	3,030	1,240	6,560
3.....	1,120	2,150	6,750	6,370	4,370	3,860	5,630	15,100	2,870	3,860	1,460	6,750
4.....	14,800	2,560	16,200	4,910	4,030	3,690	5,090	10,700	2,710	3,190	1,460	7,150
5.....	5,810	1,890	16,900	3,860	3,860	3,520	4,370	8,410	3,030	3,030	1,240	7,560
6.....	3,350	2,280	13,500	4,200	3,520	3,520	4,200	7,350	2,560	3,030	1,120	19,600
7.....	2,280	2,280	11,000	4,030	3,860	3,350	4,030	6,560	3,030	2,560	1,180	24,300
8.....	2,560	2,560	13,500	4,200	5,630	3,190	4,200	6,370	2,560	2,150	1,640	15,100
9.....	2,280	2,560	19,200	4,200	8,410	3,190	4,200	6,370	3,190	1,760	1,240	10,700
10.....	1,890	2,710	19,200	4,200	8,410	3,350	4,730	5,990	3,350	2,280	1,240	7,980
11.....	1,890	2,870	12,500	3,860	12,200	3,190	5,270	5,630	2,870	3,520	3,190	6,750
12.....	1,640	3,860	9,610	3,520	7,150	3,190	9,100	5,450	2,870	4,200	33,200	5,810
13.....	12,200	3,190	7,980	3,190	6,370	3,350	12,200	4,730	2,560	5,270	7,980	5,090
14.....	23,500	3,030	7,150	3,030	6,190	3,190	12,200	4,550	2,020	7,560	6,180	4,730
15.....	12,800	2,870	6,560	3,030	8,410	2,870	9,610	4,200	2,870	6,370	4,730	4,200
16.....	7,350	2,710	6,560	2,870	9,100	3,030	8,190	4,030	2,420	6,370	4,730	3,860
17.....	5,630	5,270	6,750	2,870	10,400	3,030	7,150	3,690	2,710	5,270	67,700	5,090
18.....	5,090	13,800	7,560	2,870	8,860	4,030	6,180	3,860	2,280	3,860	48,100	4,370
19.....	7,560	18,800	7,980	2,870	7,560	5,630	5,630	3,690	3,350	3,190	20,000	4,560
20.....	6,950	13,200	6,750	4,910	6,560	5,270	5,270	3,690	2,420	2,870	12,500	16,900
21.....	6,180	8,410	5,990	13,800	5,990	5,090	4,730	3,520	2,420	2,280	8,860	30,500
22.....	5,630	6,560	5,450	11,600	5,450	4,910	4,550	3,520	2,710	2,420	6,950	18,400
23.....	4,370	5,810	4,730	7,980	5,270	5,990	4,200	3,350	4,370	1,760	6,750	11,300
24.....	3,860	5,090	4,550	6,560	5,270	7,350	4,370	6,750	4,030	1,890	6,560	8,190
25.....	3,690	4,030	4,030	7,980	5,270	9,350	5,450	6,180	2,870	1,890	7,980	6,750
26.....	3,190	4,030	3,520	7,770	5,270	8,410	5,810	5,090	3,690	1,640	13,500	4,910
27.....	2,870	3,690	3,520	7,560	5,090	7,350	5,990	4,200	3,520	1,520	11,300	4,910
28.....	2,710	3,350	3,350	6,750	4,910	6,560	21,900	4,370	4,200	1,760	12,200	4,560
29.....	2,560	3,030	3,190	5,810	4,200	5,810	18,800	4,030	3,860	1,760	9,870	4,370
30.....	2,280	2,870	3,350	5,090	-----	5,270	15,800	3,520	3,690	1,400	7,150	4,200
31.....	2,280	-----	3,690	4,730	-----	5,090	-----	3,350	-----	1,240	6,370	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	23,500	960	5,170	1.13	1.30
November.....	18,800	1,890	4,660	1.02	1.14
December.....	19,200	1,890	7,990	1.75	2.03
January.....	13,800	2,710	5,300	1.16	1.34
February.....	12,200	3,520	6,240	1.37	1.48
March.....	9,350	2,870	4,660	1.02	1.18
April.....	21,900	4,030	7,380	1.62	1.81
May.....	20,300	3,350	6,400	1.40	1.61
June.....	4,370	2,020	3,040	.665	.74
July.....	7,560	1,240	3,110	.681	.78
August.....	67,700	1,120	10,100	2.21	2.55
September.....	30,500	3,860	9,030	1.98	2.22
The year.....	67,700	960	6,090	1.83	18.16

JAMES RIVER AT CARTERSVILLE, VA.

LOCATION.—Water-stage recorder at highway bridge between Pemberton and Cartersville, Cumberland County, 1 mile below Willis River.

DRAINAGE AREA.—6,240 square miles.

RECORDS AVAILABLE.—January, 1899, to September, 1928.

EXTREMES.—Maximum discharge, Aug. 18, (recorder not operating); minimum, 1,170 second-feet Oct. 3 (gage height, 0.86 foot).

1899–1928: Maximum discharge, about 106,000 second-feet Dec. 30, 1901 (gage height, 26.7 feet); minimum gage height, 0.33 foot Oct. 27, 1921 (discharge not determined).

REMARKS.—Records excellent except those for estimated periods, Dec. 28–31 and Aug. 17–19, which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	1,330	3,040	4,030	5,920	6,120	5,920	7,580	25,100	4,390	4,580	1,710	14,700
2.....	1,260	2,860	4,980	6,120	6,520	5,920	8,480	26,600	4,120	4,480	1,670	9,980
3.....	1,180	2,860	13,600	8,250	6,120	5,530	7,360	23,200	3,490	4,390	2,180	10,300
4.....	26,700	2,860	21,300	6,940	5,720	5,340	6,940	16,500	3,580	4,030	1,890	10,900
5.....	19,300	2,950	26,900	5,720	5,530	5,150	6,120	13,000	3,490	3,670	2,030	10,600
6.....	7,170	2,950	25,000	5,340	5,530	4,770	5,720	10,500	3,670	3,310	1,890	29,700
7.....	4,580	2,950	19,900	5,530	5,720	4,770	5,340	9,210	3,670	3,310	2,250	48,800
8.....	3,760	3,040	21,600	5,340	8,960	4,680	5,720	8,720	3,670	3,220	2,060	27,400
9.....	3,850	3,220	26,900	5,530	15,000	4,480	6,120	8,960	3,400	3,220	2,180	19,000
10.....	3,760	3,580	26,400	5,920	13,200	4,680	6,120	9,460	4,030	3,490	1,770	12,800
11.....	3,580	3,670	19,600	5,530	12,900	4,770	7,800	8,250	4,300	5,340	10,300	9,980
12.....	3,220	4,480	14,600	4,960	10,800	4,580	14,100	7,680	3,760	5,150	66,600	8,430
13.....	19,500	4,480	12,000	4,770	8,960	4,680	15,900	6,940	3,670	6,120	40,500	7,310
14.....	29,200	3,940	10,200	4,300	8,720	4,680	18,300	6,120	3,580	9,880	10,200	6,220
15.....	24,100	3,670	9,210	4,300	16,500	4,390	14,700	5,920	3,490	11,700	9,460	5,820
16.....	12,200	3,760	9,210	4,120	14,700	4,300	12,000	4,530	3,490	7,580	6,090	5,240
17.....	8,250	6,230	9,960	3,850	15,000	4,390	10,200	5,340	3,040	7,580	50,500	5,580
18.....	6,940	31,300	9,710	3,940	14,100	7,360	8,960	5,150	2,950	5,920	81,300	7,360
19.....	9,260	26,400	10,500	4,030	12,800	11,100	7,800	5,150	2,770	5,150	38,100	7,800
20.....	11,100	22,600	9,710	6,240	9,960	9,710	7,360	4,960	3,670	4,390	19,900	17,500
21.....	9,210	14,000	8,250	12,700	8,720	8,250	6,730	4,960	5,340	3,850	13,600	38,300
22.....	7,580	9,880	7,360	16,600	7,800	7,150	6,520	4,680	5,100	3,310	9,860	29,800
23.....	6,520	7,800	6,730	11,600	7,580	7,360	6,730	4,680	4,960	2,950	8,480	17,300
24.....	5,530	6,940	6,120	8,960	8,020	8,720	9,210	5,640	5,920	2,590	8,250	12,000
25.....	5,150	6,120	5,720	11,600	7,580	11,400	8,720	5,250	6,320	2,420	10,500	9,400
26.....	4,770	5,150	5,340	12,500	7,360	11,400	8,020	6,730	4,580	2,490	23,100	7,910
27.....	4,210	4,960	4,960	10,800	6,940	9,960	9,070	6,120	5,530	2,250	26,400	6,960
28.....	3,760	4,770	4,700	9,710	6,730	8,960	41,500	5,530	5,530	2,420	17,400	5,870
29.....	3,580	4,390	4,400	8,020	6,320	7,800	36,000	5,340	5,340	2,420	14,600	5,670
30.....	3,310	4,210	4,700	6,520	-----	7,580	28,100	5,150	4,960	2,180	10,400	5,870
31.....	3,130	-----	5,000	7,150	-----	7,580	-----	4,680	-----	1,720	9,600	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	29,200	1,180	8,290	1.33	1.53
November.....	31,300	2,860	6,970	1.12	1.25
December.....	26,900	4,030	11,900	1.91	2.20
January.....	16,600	3,850	7,190	1.15	1.33
February.....	16,500	5,530	9,290	1.49	1.61
March.....	11,400	4,300	6,690	1.07	1.26
April.....	41,500	5,340	11,500	1.84	2.05
May.....	26,600	4,680	8,840	1.42	1.64
June.....	6,320	2,770	4,160	.671	.75
July.....	11,700	1,720	4,360	.699	.81
August.....	81,300	1,670	16,400	2.63	3.03
September.....	48,800	5,240	13,800	2.21	2.47
The year.....	81,300	1,180	9,120	1.46	19.90

COWPASTURE RIVER NEAR CLIFTON FORGE, VA.

LOCATION.—Chain gage on highway bridge $1\frac{1}{2}$ miles above junction with Jackson River and 4 miles southeast of Clifton Forge, Alleghany County.

DRAINAGE AREA.—456 square miles.

RECORDS AVAILABLE.—May, 1907, to August, 1908; March, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 6,630 second-feet Oct. 13 (gage height, 9.70 feet); minimum, 70 second-feet July 31 (gage height, 2.00 feet). 1907-1908, 1925-1928: Maximum discharge, 6,960 second-feet Dec. 26, 1926 (gage height, 10.0 feet); minimum, 50 second-feet Aug. 14, 1926 (gage height, 1.82 feet).

The flood of March, 1913, reached a stage of 20.8 feet.

REMARKS.—Records good. Discharge estimated Nov. 20-23 and Dec. 18-20.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	97	156	207	760	316	358	960	3,680	297	502	120	960
2.....	58	145	379	528	316	336	582	2,280	260	476	134	860
3.....	112	142	2,380	336	297	297	528	1,420	243	502	150	1,540
4.....	223	226	2,480	297	260	278	451	1,030	243	528	140	1,100
5.....	243	336	1,260	358	243	278	426	824	226	451	130	760
6.....	161	316	729	379	297	260	402	698	243	358	140	1,030
7.....	140	316	1,030	358	316	243	379	638	857	297	159	1,100
8.....	124	297	1,420	336	502	243	358	555	528	260	142	760
9.....	130	358	1,830	336	1,180	260	379	502	402	220	134	582
10.....	140	336	1,180	358	890	278	528	476	379	760	145	451
11.....	142	316	960	297	729	278	555	451	358	582	610	379
12.....	170	278	698	260	668	278	2,010	402	316	476	582	336
13.....	5,860	260	638	243	502	260	2,380	358	297	1,100	555	297
14.....	1,580	243	555	243	502	260	1,100	316	278	2,680	502	260
15.....	824	243	528	226	1,740	243	1,030	297	260	1,180	426	226
16.....	668	226	528	223	1,260	260	960	278	243	698	2,010	213
17.....	451	1,030	1,420	226	960	316	760	260	226	555	3,380	260
18.....	562	2,780	1,100	210	792	358	555	278	216	451	1,920	226
19.....	729	1,500	850	582	668	426	476	297	204	379	1,500	528
20.....	698	1,000	600	2,010	555	476	451	297	1,030	297	960	1,740
21.....	610	670	528	1,100	476	582	426	260	1,030	260	582	1,260
22.....	451	610	451	638	451	860	402	1,500	698	243	476	698
23.....	358	450	358	582	451	1,420	402	1,660	502	220	1,260	582
24.....	278	451	336	555	610	1,500	1,100	857	638	161	698	379
25.....	260	336	316	729	582	1,260	960	582	824	134	668	316
26.....	243	297	297	824	528	1,260	760	638	890	124	638	278
27.....	216	278	260	610	451	1,500	890	582	760	110	1,580	220
28.....	204	260	243	528	402	638	1,830	426	555	101	1,180	210
29.....	210	243	223	451	379	582	2,190	379	451	90	792	207
30.....	182	226	316	379	-----	1,030	3,490	358	502	76	502	243
31.....	167	-----	582	358	-----	1,100	-----	336	-----	80	379	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	5,860	88	525	1.15	1.33
November.....	2,780	142	475	1.04	1.16
December.....	2,480	207	796	1.75	2.02
January.....	2,010	210	494	1.08	1.24
February.....	1,740	243	597	1.31	1.41
March.....	1,500	243	573	1.26	1.45
April.....	3,480	358	924	2.03	2.26
May.....	3,680	260	739	1.62	1.67
June.....	1,030	204	465	1.02	1.14
July.....	2,680	76	463	1.02	1.18
August.....	3,380	120	729	1.60	1.84
September.....	1,740	207	594	1.30	1.45
The year.....	5,860	76	615	1.35	1.55

CRAIG CREEK AT FARR, VA.

LOCATION.—Chain gage on Chesapeake & Ohio Railway bridge 600 feet from Farr, Botetourt County.

DRAINAGE AREA.—331 square miles.

RECORDS AVAILABLE.—April, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 16,900 second-feet Aug. 17 (gage height, 15.60 feet); minimum, 56 second-feet Oct. 2 and 3 (gage height, 3.68 feet).

1925-1928: Maximum discharge, that of Aug. 17, 1928; minimum, 36 second-feet Sept. 11, 1925 (gage height, 3.45 feet).

REMARKS.—Records good. Discharge estimated Dec. 28 and Jan. 3-8 because of ice.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	58	98	172	1,290	394	247	446	1,200	154	269	59	344
2.....	56	96	238	646	368	238	394	900	148	193	58	677
3.....	63	99	2,890		319	221	368	708	140	189	58	740
4.....	132	112	1,750		801	205	344	586	148	154	58	771
5.....	132	126	1,200		291	197	310	500	165	126	60	557
6.....				360								
6.....	96	117	1,290		301	186	291	472	175	110	68	1,200
7.....	79	103	1,200		296	175	291	500	310	99	80	1,560
8.....	73	110	1,950		368	168	319	557	229	90	103	900
9.....	73	273	1,950	319	970	175	305	616	189	85	68	645
10.....	82	472	1,120	310	740	201	287	586	175	121	58	500
11.....												
11.....	72	344	835	282	616	217	368	528	172	344	72	394
12.....	273	296	708	204	528	213	1,380	472	213	229	269	814
13.....	2,170	255	586	247	446	209	1,040	419	238	161	282	254
14.....	708	213	528	225	419	205	835	368	368	175	168	221
15.....	419	189	528	221	646	205	677	319	264	229	124	205
16.....												
16.....	319	182	708	205	586	251	586	301	197	175	3,150	900
17.....	242	264	1,560	197	528	472	472	278	161	143	15,200	528
18.....	247	2,060	970	189	500	557	419	319	146	121	2,400	394
19.....	238	1,040	771	1,200	446	557	394	394	134	108	1,120	771
20.....	221	708	586	3,020	394	646	344	319	126	99	740	9,630
21.....												
21.....	197	528	528	1,040	344	803	319	301	126	89	528	2,640
22.....	172	419	446	900	314	900	301	344	137	87	419	1,380
23.....	148	368	394	771	344	670	310	368	126	79	394	900
24.....												
24.....	137	314	344	646	344	900	319	319	121	73	301	646
25.....	126	273	319	900	310	803	301	264	134	72	282	500
26.....												
26.....	119	247	273	835	282	803	282	255	168	69	500	419
27.....	112	221	251	677	269	646	319	238	168	68	1,650	344
28.....	108	201	240	586	264	557	3,430	213	175	66	771	301
29.....	103	189	200	500	264	472	1,750	197	148	68	500	264
30.....	103	182	278	500		472	1,380	182	168	65	368	264
31.....	101		344	446				168		60	301	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	2,170	56	232	0.701	0.81
November.....	2,060	96	337	1.02	1.14
December.....	2,890	172	814	2.46	2.84
January.....	3,020	189	599	1.81	2.09
February.....	970	264	420	1.27	1.37
March.....	970	168	431	1.30	1.40
April.....	3,430	282	619	1.87	2.00
May.....	1,200	168	426	1.29	1.40
June.....	368	121	177	.535	.60
July.....	344	60	130	.393	.45
August.....	15,200	58	974	2.94	2.20
September.....	9,630	205	974	2.94	2.28
The year.....	15,200	56	511	1.54	21.05

JOHNS-CREEK AT NEWCASTLE, VA.

LOCATION.—Chain gage on highway bridge 500 feet east of town limits of Newcastle, Craig County, and one-fourth mile above mouth.

DRAINAGE AREA.—106 square miles.

RECORDS AVAILABLE.—April, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 3,500 second-feet Aug. 16 (gage height, 9.10 feet); minimum, 15 second-feet Oct. 1, 2, and 3 (gage height, 2.50 feet).

1926-1928: Maximum discharge, that of Aug. 16, 1928; minimum, 8.1 second-feet Aug. 14-16 and 19, 1926 (gage height, 2.27 feet).

REMARKS.—Records good. Discharge estimated Dec. 19-28 and Jan. 3-6 because of ice, and Feb. 9, Apr. 27, May 23-26, and June 4 because of missing gage heights.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	29	55	175	116	82	160	391	44	110	17	123
2	15	29	77	152	110	82	137	291	44	98	17	337
3	15	37	137		104	82	123	225	48	82	18	313
4	26	37	313		92	72	116	216	52	72	18	216
5	40	37	313	110	92	59	110	183	55	64	32	160
6	24	35	391		92	55	110	160	68	40	32	313
7	20	31	391	104	98	55	98	183	59	37	37	291
8	18	37	960	92	167	51	87	271	51	33	34	225
9	20	271	561	92	250	68	87	252	48	55	17	152
10	18	234	313	87	160	82	104	216	55	110	25	116
11	17	116	291	87	160	68	191	191	68	110	37	82
12	24	98	199	77	152	68	271	167	82	64	123	72
13	645	92	183	77	152	64	271	137	82	59	50	68
14	363	68	167	68	152	64	252	123	77	68	64	55
15	175	59	167	64	160	64	252	110	59	51	167	110
16	82	59	453	59	183	64	191	98	55	40	1,160	123
17	87	421	421	64	175	68	160	98	48	37	1,740	87
18	104	487	363	64	160	72	152	123	44	35	523	98
19	64	313		645	130	167	123	110	44	32	313	645
20	59	208		391	110	167	110	98	44	30	199	1,560
21	51	167	175	291	110	271	104	92	48	26	144	601
22	51	137		252	110	363	98	87	44	22	123	313
23	48	123		216	110	363	98		44	23	92	216
24	44	92		183	98	252	104		55	25	82	167
25	40	87	80	167	92	252	98	100.	72	22	77	137
26	37	77		167	87	234	98		68	22	137	104
27	37	72		175	87	216	120	72	77	22	160	87
28	36	59		183	87	167	960	59	77	24	123	77
29	33	59	87	183	82	152	453	59	82	21	87	77
30	33	59	123	175		160	487	55	167	18	77	98
31	31		313	144		152		55		17	87	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	645	15	73.3	0.692	0.80
November	487	29	121	1.14	1.27
December	960		241	2.27	2.68
January	645		157	1.48	1.71
February		82	127	1.20	1.29
March	363	51	133	1.26	1.45
April	960	87	191	1.80	2.01
May	391		146	1.38	1.59
June	167	44	62	.585	.65
July	110	17	47.4	.447	.52
August	1,740	17	188	1.77	2.04
September	1,560	55	234	2.21	2.47
The year	1,740	15	143	1.35	18.42

SURFACE WATER SUPPLY, 1928, PART II

NORTH RIVER AT GOSHEN, VA.

LOCATION.—Chain gage on highway bridge just outside of Goshen, Rockbridge County, 500 feet below junction of Mill Creek and Calpasture River.

DRAINAGE AREA.—190 square miles.

RECORDS AVAILABLE.—March, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 3,220 second-feet Oct. 13 (gage height, 6.40 feet); minimum, 14 second-feet Oct. 1 and 2 (gage height, 1.88 feet).

1925-1928: Maximum discharge, 7,310 second-feet Nov. 16, 1926 (gage height, 9.70 feet); minimum, 8 second-feet July 22, 1926 (gage height, 1.79 feet).

REMARKS.—Records good. Discharge for Jan. 2-5 and 30 estimated because of ice.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	19	54	82	142	145	131	316	1,950	105	215	20	382
2.....	14	48	153	130	128	118	255	950	91	162	25	205
3.....	36	86	510		108	108	233	566	82	211	20	456
4.....	57	181	482		91	100	184	382	77	162	22	382
5.....	48	159	430		105	95	172	295	75	125	19	255
6.....	37	136	537	168	102	82	153	255	75	95	29	406
7.....	32	112	482	133	91	79	178	208	120	79	24	456
8.....	32	128	1,950	120	406	77	316	175	110	61	22	337
9.....	40	162	1,070	115	596	82	337	168	91	55	24	222
10.....	43	147	596	110	430	93	295	142	88	181	24	162
11.....	36	153	406	98	316	82	566	128	84	110	57	128
12.....	32	147	316	93	255	82	1,380	110	88	77	380	105
13.....	2,350	133	251	86	201	79	910	100	75	102	251	88
14.....	566	120	204	82	337	77	628	93	71	204	153	77
15.....	275	105	184	82	795	77	456	88	61	159	100	67
16.....	187	95	194	77	566	88	316	84	59	115	760	77
17.....	153	172	191	73	430	100	275	82	54	95	1,850	63
18.....	275	1,560	181	73	316	112	201	84	47	75	692	71
19.....	316	659	175	133	244	115	181	77	162	63	382	100
20.....	316	406	178	596	187	112	162	73	537	57	233	870
21.....	240	255	156	406	175	145	139	69	360	47	153	456
22.....	175	218	136	337	147	316	133	1,070	255	45	128	275
23.....	147	175	110	236	215	870	175	1,110	159	42	183	175
24.....	118	159	105	233	218	725	596	430	215	39	105	131
25.....	105	131	79	406	194	566	456	275	295	33	125	108
26.....	88	118	88	295	178	406	360	295	382	27	131	88
27.....	79	105	102	255	159	295	596	215	255	32	795	82
28.....	71	93	105	233	159	248	537	175	181	29	337	71
29.....	65	93	91	211	133	204	532	159	153	26	191	69
30.....	61	84	98	185	-----	628	2,150	131	229	23	189	84
31.....	55	-----	168	153	-----	406	-----	122	-----	22	184	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	2,350	14	196	1.03	1.19
November.....	1,560	48	206	1.08	1.20
December.....	1,950	79	316	1.66	1.81
January.....	596	73	182	.968	1.10
February.....	795	91	255	1.35	1.46
March.....	870	77	216	1.14	1.24
April.....	2,150	133	450	2.37	2.64
May.....	1,950	69	325	1.71	1.87
June.....	537	47	155	.816	.81
July.....	215	22	89.3	.470	.64
August.....	1,850	19	242	1.27	1.46
September.....	870	63	218	1.15	1.28
The year.....	2,350	14	237	1.25	16.97

NORTH RIVER NEAR LEXINGTON, VA.

LOCATION.—Water-stage recorder 300 yards above Lime Kiln highway bridge and 2¼ miles above Lexington, Rockbridge County.

DRAINAGE AREA.—487 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 6,310 second-feet Aug. 17 (gage height, 9.45 feet); minimum, 57 second-feet Oct. 1 (gage height, 2.11 feet). 1925-1928: Maximum discharge, 9,150 second-feet Nov. 16, 1926 (gage height, 11.42 feet); minimum (estimated), 45 second-feet Sept. 25-30, 1925.

REMARKS.—Records excellent except for estimated periods, June 27 to July 21, Aug. 2-4 and 16, for which they are fair.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	162	252	745		429	940	3,770	304	580	108	1,200
2	81	156	252	447		410	766	2,220	274	440	105	970
3	136	156	1,000	560		401	636	1,490	252	500	105	1,260
4	393	304	1,730	576		374	548	1,090	237	430	105	1,230
5	168	396	1,450	613		361	495	880	237	390	104	910
6	131	334	1,370	522		304	451	778	233	350	106	1,690
7	114	271	1,410	388		291	451	692	248	300	124	1,860
8	112	240	1,450	352		274	784	604	263	260	138	1,260
9	120	325	3,330	348		270	778	582	244	230	129	910
10	131	357	3,110	344		325	714	510	230	400	136	692
11	118	334	2,180	313		299	785	465	222	310	460	576
12	660	334	1,060	300		291	2,530	424	233	240	1,340	480
13	4,030	313	778	282		282	1,900	383	212	300	1,110	410
14	1,500	271	691	271		278	1,410	352	192	450	587	388
15	790	252	609	255	1,860	274	1,120	330	176	380	379	545
16	521	237	654	252	1,300	299	910	312	165	320	2,460	587
17	406	252	654	233	1,030	334	730	308	159	290	5,070	374
18	880	2,220	609	222	910	392	592	330	159	250	2,490	338
19	910	2,490	554		702	406	521	282	287	220	1,570	450
20	754	1,370	516		609	401	470	267	620	195	940	2,080
21	631	910	510		587	510	424	255	708	175	748	1,530
22	495	702	447		527	778	424	971	614	165	664	940
23	406	576	401		637	1,300	485	1,370	470	159	686	697
24	325	490	396		719	1,300	1,000	1,020	622	151	732	548
25	282	415	291		637	1,060	1,030	675	636	134	850	442
26	252	370	255		592	910	820	812	675	124	974	379
27	222	330	222		527	748	984	582	710	122	1,770	330
28	202	304	226		505	626	2,150	490	550	134	1,230	209
29	195	282	267		451	544	2,370	420	430	120	820	278
30	182	267	282			1,130	4,260	379	600	112	614	316
31	168		500			1,350		348		106	754	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	4,030	72	496	1.02	1.18
November	2,490	156	514	1.06	1.18
December	3,330	222	885	1.82	2.10
January 1-18	745	222	390	.801	.54
February 15-29	1,860	451	773	1.59	.89
March	1,350	270	547	1.12	1.29
April	4,260	424	1,050	2.16	2.41
May	3,770	255	771	1.58	1.82
June	710	159	365	.749	.84
July	580	106	269	.562	.64
August	5,070	104	884	1.82	2.10
September	2,080	278	799	1.64	1.83

KERRS CREEK NEAR LEXINGTON, VA.

LOCATION.—Chain gage at highway bridge $3\frac{1}{2}$ miles northwest of Lexington, Rockbridge County, and one-fourth mile above mouth.

DRAINAGE AREA.—34 square miles.

RECORDS AVAILABLE.—January, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 1,560 second-feet Aug. 16 (gage height, 8.50 feet); minimum, 8 second-feet Jan. 28 (gage height, 3.45 feet).

1927-28: Maximum discharge, that of Aug. 16, 1928; minimum, that of Jan. 28, 1928.

REMARKS.—Records fair. Gage not read on days for which no discharge is shown.

Daily discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.						25	25	90	15	14		78
2.					16			66		24	14	
3.							23		15	13		
4.		14						45		12	11	127
5.						22	25		14	10		74
6.		13	72			20	19		14			64
7.		14					44		14		11	
8.		20		25			27					
9.							25	30	13	22		60
10.		23		17	41	20	22	28	14			49
11.			48	17	38	22	200	28	15		46	41
12.		17					85	25	10			225
13.		16	41	17		16		25	14	23		
14.			32	19	146				13	23	14	
15.		15	34	18	70	15	38	22			10	
16.			42	19			34		12	16	1,560	70
17.			40	15		25	32	20	12	13	200	57
18.				18	41	30	28	25	11		101	41
19.		36		60	28			19	13		64	110
20.				87	30	36	25	17			41	60
21.					28	41	27	16	14	12	127	
22.	20					57	27		16			
23.	18	22	28	44	40			19	13			
24.	16			36		44	36			11	70	46
25.	19					34	33	16		10	93	46
26.	17						28	28	12	10		41
27.			22			30	370	21	13	10		
28.				8	28	26	177	19		10	85	
29.							110	16			60	34
30.	15					32		16	16			30
31.			64	28				17		10	146	

WRECK ISLAND CREEK NEAR CONCORD, VA.

LOCATION.—Staff gage at highway bridge in Appomattox County, 300 feet below gristmill, 9 miles from Concord, Campbell County, and 6 miles above mouth.

DRAINAGE AREA.—40 square miles.

RECORDS AVAILABLE.—February, 1926, to March, 1928.

EXTREMES.—Maximum gage height during period, 5.70 feet Nov. 17 (discharge not determined); minimum discharge, 7 second-feet Oct. 2 (gage height, 0.68 foot).

1926-1928: Maximum gage height, 7.00 feet Aug. 8, 1927 (discharge not determined); minimum discharge, that of Oct. 2, 1927.

REMARKS.—Records fair. Low-water flow regulated to some extent by gristmill and dam above gage.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	17	26	21	35	32	32	16	35	23	64	30	50	
2	8	26	112	25	37	28	17	32	460	49	27	42	
3	83	25	191	20	36	27	18	39	112	42	28	56	
4	85	25	191	22	35	27	19	40	55	35	79	39	
5	31	25	240	27	40	27	20	34	44	32	65	38	
6	32	23	98	26	49	26	21	31	38	31	41	38	
7	27	23	75	26	43	27	22	29	33	26	31	32	
8	24	23	131	26	112	26	23	27	32	28	32	50	
9	71	31	58	42	98	39	24	28	31	21	33	36	
10	28	27	44	36	56		25	31	29	25	72	36	
11	25	24	42	33	47		26	28	28	19	53	34	
12	207	24	40	32	40		27	28	27	21	47	31	
13	310	24	38	30	40		28	28	25	24	41	32	
14	52	24	33	31	92		29	27	24	32	40	30	
15	38	22	36	29	66		30	27	22	32	37		
							31	27		43	35		

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	310	8	49.3	1.23	1.42
November	460	22	45.2	1.13	1.26
December	240	19	60.5	1.51	1.74
January	79	20	36.5	.912	1.05
February	112	30	47.1	1.18	1.27
March 1-9	39	26	28.8	.720	.24

TYE RIVER AT ROSELAND, VA.

LOCATION.—Chain gage on highway bridge three-fourths mile southwest of Roseland, Nelson County, and three-fourths mile above Hat Creek.

DRAINAGE AREA.—68 square miles.

RECORDS AVAILABLE.—January, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 2,240 second-feet Aug. 16 (gage height, 8.65 feet); minimum, 26 second-feet Oct. 1 (gage height, 3.06 feet).
1927-28: Maximum discharge, that of Aug. 16, 1928; minimum, 15 second-feet July 6, 1927 (gage height, 2.94 feet).

REMARKS.—Records good. Discharge Jan. 3-6 and 30 estimated because of ice.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	26	96	100	116	114	128	92	371	56	56	43	143.
2.....	27	92	176	88	104	116	92	300	56	48	45	165.
3.....	370	96	284	90	96	112	90	240	56	48	40	213.
4.....	636	100	254	90	96	102	88	213	58	38	35	200.
5.....	308	85	236	100	102	108	85	200	56	37	34	176.
6.....	224	78	200	110	104	96	83	200	60	36	37	860.
7.....	387	74	213	98	96	92	108	188	48	30	37	552.
8.....	162	87	860	96	300	92	165	176	49	28	35	371.
9.....	150	96	552	100	300	118	154	176	43	81	32	284.
10.....	126	78	409	88	213	96	154	165	42	428	36	226.
11.....	108	74	334	88	188	96	240	154	45	213	188	200.
12.....	906	85	284	85	176	92	334	143	48	724	188	176.
13.....	952	69	240	81	154	85	316	132	40	284	116	154.
14.....	552	67	213	81	316	85	254	124	37	552	88	182.
15.....	284	67	254	78	371	88	226	120	37	269	72	124.
16.....	284	74	213	74	300	94	188	114	34	200	1,000	132.
17.....	240	594	176	72	254	92	176	108	30	165	1,050	120.
18.....	316	680	165	74	240	110	154	104	34	143	636	124.
19.....	448	409	154	114	188	98	154	96	78	118	594	334.
20.....	390	226	143	116	176	94	132	92	53	104	284	584.
21.....	284	240	143	88	154	100	143	88	42	90	213	371.
22.....	240	200	132	108	154	104	132	85	40	96	188	284.
23.....	200	176	128	96	226	116	143	87	43	83	165	226.
24.....	176	165	114	98	176	112	176	74	56	76	188	200.
25.....	154	154	108	200	165	154	154	78	60	63	176	176.
26.....	143	132	98	165	154	112	269	90	63	60	240	154.
27.....	132	126	100	154	143	108	428	76	45	56	165	143.
28.....	124	112	100	143	143	102	371	74	37	56	143	132.
29.....	112	112	112	132	132	100	352	67	96	45	124	130.
30.....	108	106	108	130	-----	120	489	67	85	42	154	143.
31.....	100	-----	143	116	-----	96	-----	53	-----	42	154	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	952	26	280	4.12	4.75.
November.....	680	67	158	2.32	2.59.
December.....	860	96	217	3.19	3.68.
January.....	200	72	105	1.54	1.78.
February.....	371	96	184	2.71	2.92.
March.....	154	85	104	1.53	1.76.
April.....	489	83	198	2.91	3.25.
May.....	371	53	137	2.01	2.32.
June.....	96	30	50.9	.749	.84.
July.....	724	28	139	2.04	2.35.
August.....	1,050	32	210	3.09	3.56.
September.....	880	120	241	3.54	3.95.
The year.....	1,050	26	169	2.49	33.75.

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.

DRAINAGE AREA.—104 square miles.

RECORDS AVAILABLE.—May, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,690 second-feet Aug. 26 (gage height, 16.62 feet); minimum, 9 second-feet Oct. 1 (gage height, 1.71 feet).

1925-1928: Maximum discharge, that of Aug. 26, 1928; minimum, 6 second-feet Sept. 7, 1927 (gage height, 1.54 feet).

REMARKS.—Records good except those for low stages and estimated periods, which are fair. Low-water flow is regulated by dam and gristmill just above station.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	70	204	144	* 111	102	70	230	56	34	11	370
2	10	70	316	102	96	91	70	202	53	33	12	276
3	14	75	418	80	102	91	70	188	52	34	11	291
4	1,130	91	358	120	102	91	70	174	58	34	11	306
5	177	75	529	120	108	91	59	188	61	31	14	1,610
6	132	70	418	132	102	80	66	188	69	26	11	910
7	126	66	373	120	108	86	70	188	50	25	11	800
8	126	70	700	114	316	80	108	160	47	23	11	438
9	144	86	418	126	246	96	91	230	45	21	11	354
10	126	75	316	120	204	80	86	174	49	138	14	276
11	114	70	274	108	151	86	151	146	54	45	456	231
12	177	66	246	108	132	91	316	126	51	29	1,500	216
13	403	60	218	108	114	80	132	120	45	126	230	209
14	190	60	218	102	302	80	126	114	39	90	146	188
15	164	58	204	108	433	75	* 108	108	31	52	120	188
16	* 148	61	232	91	246	91	91	102	29	36	330	202
17	132	1,110	218	80	204	102	86	96	* 28	28	2,960	188
18	218	950	190	96	204	316	86	96	28	24	438	291
19	302	344	177	138	164	232	80	90	43	24	* 402	386
20	204	246	164	158	144	177	80	85	50	26	315	420
21	158	246	164	126	132	132	80	80	54	20	286	261
22	126	232	158	96	120	120	80	74	39	21	258	216
23	102	218	151	108	177	108	177	74	47	18	244	202
24	102	218	144	108	144	96	177	74	90	14	244	188
25	91	204	* 140	190	126	86	126	69	69	13	670	174
26	86	190	* 130	177	120	86	102	85	102	13	3,510	167
27	86	190	* 130	164	114	86	388	69	52	15	370	160
28	80	177	* 140	144	108	80	1,380	69	42	22	306	160
29	80	177	* 180	138	102	75	360	60	42	22	231	160
30	70	177	138	132	-----	91	272	63	43	14	216	262
31	75	-----	177	126	-----	75	-----	59	-----	11	231	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,130	10	165	1.59	1.83
November	1,110	58	193	1.86	2.08
December	700	130	253	2.43	2.80
January	190	80	122	1.17	1.35
February	433	96	163	1.57	1.69
March	316	75	105	1.01	1.16
April	1,380	59	172	1.65	1.84
May	230	59	122	1.17	1.35
June	102	28	50.6	.487	.54
July	133	11	34.0	.327	.38
August	3,510	11	440	4.23	4.88
September	1,610	160	334	3.21	3.58
The year	3,510	10	179	1.72	23.48

* Estimated.

SLATE RIVER NEAR ARVONIA, VA.

LOCATION.—Chain gage on Bumpers highway bridge, 2 miles from Arvonias, Buckingham County, and 2 miles above the mouth.

DRAINAGE AREA.—235 square miles.

RECORDS AVAILABLE.—April, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 5,300 second-feet Aug. 12 (gage height, 14.12 feet); minimum, 19 second-feet Oct. 2 (gage height, 1.92 feet).

1926-1928: Maximum discharge, that of Aug. 12, 1928; minimum, 11 second-feet Aug. 5, 1926 (gage height, 1.70 feet).

REMARKS.—Records good. Gage not read Aug. 30, 31, Sept. 1 and 18-21; discharge estimated. Operation of gristmill $7\frac{1}{2}$ miles upstream affects low-water flow.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	73	96	256	187	162	178	315	96	123	58	300
2	23	73	508	130	291	154	162	267	90	96	54	366
3	116	73	1,390	90	215	154	154	235	90	116	52	366
4	2,570	96	1,040	90	205	146	146	205	123	96	48	315
5	245	96	1,080	116	235	146	146	196	130	84	58	366
6	116	78	996	116	392	138	138	178	116	78	78	3,370
7	90	73	756	130	315	130	146	178	102	78	61	2,160
8	84	78	794	130	1,170	138	225	187	96	59	48	508
9	96	102	508	196	1,040	162	162	291	90	58	47	315
10	138	109	267	205	420	178	291	303	123	109	73	245
11	90	90	225	170	303	162	420	205	109	123	196	205
12	96	84	215	146	245	178	954	178	102	84	4,940	178
13	2,110	78	187	146	205	162	340	154	102	130	2,210	162
14	540	73	170	138	478	154	267	154	96	996	303	154
15	196	78	196	130	756	138	225	146	130	303	187	138
16	146	73	340	130	366	154	196	146	96	146	448	138
17	123	106	315	123	279	205	178	138	78	109	2,460	146
18	162	2,990	215	116	303	1,120	170	138	78	102	608	200
19	205	680	187	256	267	718	162	138	315	84	279	2,500
20	154	245	154	478	225	366	162	130	162	78	215	700
21	116	178	138	235	196	267	162	123	574	84	170	350
22	96	154	130	178	178	215	187	116	170	68	138	256
23	90	130	116	178	291	196	279	123	123	73	130	215
24	84	123	123	170	267	178	508	116	116	63	130	187
25	78	116	109	756	215	170	279	109	340	63	225	170
26	73	102	109	366	187	170	205	123	178	53	1,530	154
27	78	102	123	215	178	162	574	116	366	68	1,340	146
28	73	96	138	196	178	146	3,710	116	170	235	291	154
29	73	96	138	130	170	146	1,040	109	123	78	196	146
30	73	96	162	235	-----	196	448	109	205	68	180	366
31	73	-----	205	187	-----	267	-----	102	-----	68	200	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	2,570	23	266	1.13	1.30
November	2,990	73	221	.940	1.05
December	1,390	96	359	1.53	1.76
January	756	90	198	.843	.97
February	1,170	170	336	1.43	1.54
March	1,120	130	225	.957	1.10
April	3,710	138	407	1.73	1.93
May	315	102	166	.706	.81
June	574	78	156	.664	.74
July	.996	53	128	.545	.63
August	4,940	47	547	2.33	2.69
September	3,370	138	499	2.12	2.36
The year	4,940	23	292	1.24	16.96

RIVANNA RIVER BELOW MOORES CREEK, NEAR CHARLOTTESVILLE, VA.

LOCATION.—Water-stage recorder 500 feet above Virginia Public Service Co.'s power plant near Charlottesville, Albemarle County, and 200 feet below Moores Creek.

DRAINAGE AREA.—507 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1928. February to August, 1925, at station half a mile upstream.

EXTREMES.—Maximum discharge during year, 8,570 second-feet Oct. 4 (gage height, 11.83 feet); minimum, 98 second-feet Oct. 1 (gage height, 1.63 feet).
1925-1928: Maximum discharge, 8,790 second-feet Nov. 16, 1926 (gage height, 11.96 feet); minimum, 21 second-feet Sept. 4, 1925 (gage height, 1.10 feet).

REMARKS.—Records good. Discharge Jan. 20 and June 30 estimated. No record July 1 to Sept. 13.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Sept.
1	133	322	301	408	364	430	343	1,440	301	-----
2	119	322	667	236	343	386	364	1,000	301	-----
3	922	322	1,600	280	301	386	343	886	280	-----
4	5,940	386	1,300	280	280	364	343	730	301	-----
5	1,020	322	1,750	301	301	364	322	618	364	-----
6	642	280	1,750	322	322	343	322	568	364	-----
7	462	301	1,300	322	301	343	322	544	343	-----
8	438	322	3,070	322	592	322	521	498	343	-----
9	588	386	2,030	343	791	343	452	672	322	-----
10	588	343	1,230	322	644	364	452	618	280	-----
11	438	301	952	301	568	322	544	544	301	-----
12	852	322	822	301	498	322	1,330	475	364	-----
13	5,610	280	700	280	452	322	952	430	364	-----
14	1,680	301	644	260	860	322	760	408	322	498
15	1,090	322	592	260	2,220	301	644	386	343	430
16	822	301	618	260	1,160	322	568	386	301	408
17	760	3,110	592	260	386	343	498	364	280	364
18	1,020	3,960	544	260	791	775	452	364	260	516
19	1,680	1,370	498	280	644	672	430	343	301	408
20	1,300	952	452	301	568	592	408	322	343	1,310
21	952	730	452	322	498	544	386	364	280	952
22	700	618	430	240	475	498	408	475	240	672
23	568	521	408	364	644	475	521	408	228	544
24	521	452	386	343	644	475	1,020	343	772	475
25	475	430	343	791	568	452	760	322	452	408
26	430	386	322	618	521	475	618	526	430	364
27	408	364	322	498	475	430	1,350	408	301	343
28	364	364	343	430	475	386	5,850	364	386	322
29	343	343	408	323	452	386	2,240	343	364	322
30	301	322	364	364	-----	386	1,680	322	320	386
31	343	-----	386	364	-----	386	-----	322	-----	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	5,940	191	1,020	2.01	2.32
November	3,960	280	635	1.25	1.40
December	3,070	301	825	1.63	1.88
January	791	236	341	.673	.78
February	2,220	280	608	1.20	1.29
March	672	301	404	.797	.92
April	5,850	322	840	1.66	1.85
May	1,440	322	512	1.01	1.16
June	772	228	338	.667	.74
September 14-30	1,310	322	513	1.01	.64

WILLIS RIVER AT FLANAGAN MILLS, VA.

LOCATION.—Chain gage on highway bridge at Flanagan Mills, Cumberland County, 3 miles below Reynolds Creek.

DRAINAGE AREA.—247 square miles.

RECORDS AVAILABLE.—April, 1926, to September 1928.

EXTREMES.—Maximum discharge during year, 3,280 second-feet Aug. 12 (gage height, 19.80 feet); minimum, 33 second-feet Oct. 1 (gage height, 3.01 feet).

1926-1928: Maximum discharge, that of Aug. 12, 1928; minimum, 30 second-feet July 23, 1926 (gage height, 2.74 feet).

REMARKS.—Records good. The flow from Trice Lake, which forms only a small part of total flow at station, as completely regulated during low stages.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	58	98	299	211	126	260	774	76	92	57	175
2	34	58	134	299	199	126	153	443	66	69	55	211
3	580	58	869	273	153	115	142	273	76	63	51	398
4	564	63	1,040		142	115	136	223	76	63	51	211
5	455	80	1,580		175	115	131	211	84	110	131	299
6	384	84	1,620	• 135	187	115	131	175	110	76	80	1,650
7	252	69	• 1,000		247	115	142	153	80	57	88	1,960
8	88	69	• 600		507	120	136	153	76	57	63	1,890
9	66	80	459	164	888	120	164	199	76	45	69	1,390
10	72	103	398	211	675	120	142	223	76	45	76	683
11	66	98	247	235	383	126	153	199	76	57	84	413
12	60	93	223	223	286	164	774	175	76	60	2,480	273
13	812	80	199	211	247	175	541	142	76	90	3,180	199
14	719	69	187	142	211	164	413	126	72	92	2,360	153
15	614	63	• 130	120	541	153	260	126	69	199	• 1,600	131
16	291	63	• 360	115	383	199	235	126	69	175	• 1,100	115
17	123	69	• 350	120	199	247	199	120	66	80	• 900	126
18	108	1,390	• 240	120	187	888	175	115	92	60	• 1,300	131
19	128	1,650	• 200	223	175	1,040	153	115	164	53	273	175
20	123	1,580	187	507	175	1,070	142	110	541	51	187	575
21	113	516	175	341	175	475	142	100	383	49	175	945
22	98	227	175	211	187	341	153	92	175	49	153	• 600
23	72	167	142	164	175	223	383	92	153	49	142	443
24	66	145	136	223	175	199	647	92	164	49	223	273
25	63	134	142	398	187	187	443	88	541	49	413	175
26	58	134	142	647	175	164	299	84	260	49	1,460	164
27	60	113	131	558	153	153	475	84	187	57	1,940	153
28	60	113	131	369	142	142	1,940	84	110	260	1,190	• 148
29	58	98	120	327	136	131	2,230	80	100	120	926	142
30	56	103	142	327		247	1,960	76	96	72	683	355
31	56		235	299		341		76		60	383	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	812	33	204	0.826	0.95
November	1,650	58	254	1.03	1.15
December	1,620	98	395	1.60	1.84
January	647		252	1.02	1.18
February	888	136	261	1.06	1.14
March	1,070	115	259	1.05	1.21
April	2,230	131	442	1.79	2.00
May	674	76	165	.668	.77
June	541	66	142	.575	.64
July	260	45	78.9	.319	.37
August	3,180	51	706	2.86	3.30
September	1,960	115	483	1.96	2.19
The year	3,180	33	302	1.22	16.74

• Estimated.

APPOMATTOX RIVER AT FARMVILLE, VA.

LOCATION.—Chain gage on highway bridge 1,000 feet north of Farmville, Prince Edward County, and $1\frac{1}{2}$ miles below Buffalo Creek.

DRAINAGE AREA.—306 square miles.

RECORDS AVAILABLE.—March, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,170 second-feet Aug. 12 (gage height, 21.10 feet); minimum, 14 second-feet Oct. 1 (gage height, 2.66 feet).

1926-1928: Maximum discharge that of Aug. 12, 1928; minimum, 9 second-feet Aug. 13, 1926 (gage height, 2.53 feet).

REMARKS.—Records good for high and medium stages; fair for low, owing to regulation of flow at dam upstream.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	18	77	139	384	242	204	235	414	* 112	117	39	* 170
2.....	46	84	216	186	328	174	216	328	* 102	88	65	204
3.....	98	90	1,370	156	254	174	198	274	102	88	23	335
4.....	1,680	119	1,900	162	261	174	198	254	128	79	32	356
5.....	1,300	106	1,540	117	268	168	174	242	156	77	61	307
6.....	291	90	1,420	137	399	139	174	222	139	59	46	1,660
7.....	160	59	790	168	370	168	174	210	122	30	86	2,110
8.....	120	90	710	174	492	174	235	204	119	67	73	596
9.....	200	100	509	210	1,440	210	204	235	102	75	65	335
10.....	250	134	328	342	690	261	235	242	112	122	86	235
11.....	155	119	268	* 360	429	261	300	204	122	97	2,320	137
12.....	139	95	254	287	399	228	1,140	186	117	79	3,990	182
13.....	1,160	104	210	192	280	222	671	168	117	88	2,340	174
14.....	770	79	216	186	429	156	370	162	71	710	460	150
15.....	230	98	210	174	876	162	314	139	90	261	294	150
16.....	218	95	492	162	492	261	261	139	97	122	261	144
17.....	150	390	509	156	370	335	222	139	88	186	2,080	235
18.....	129	2,760	335	162	399	1,390	216	150	84	* 130	1,780	174
19.....	134	1,540	254	370	509	1,230	198	144	84	77	560	1,370
20.....	124	414	186	790	287	509	198	139	79	69	294	2,080
21.....	110	261	162	429	248	328	198	139	134	23	235	1,140
22.....	108	235	180	235	285	287	210	122	128	61	168	429
23.....	99	204	180	254	222	254	370	139	77	23	100	268
24.....	100	186	186	174	198	560	144	97	29	174	222	222
25.....	90	168	* 150	790	261	228	460	128	280	26	168	198
26.....	95	168	144	614	228	228	248	134	162	20	204	186
27.....	82	150	150	399	204	210	1,340	117	321	61	300	* 175
28.....	93	130	150	210	210	222	2,760	107	222	53	174	162
29.....	84	130	186	174	204	180	1,780	130	144	46	131	168
30.....	82	139	222	235	-----	300	578	122	261	37	126	429
31.....	90	-----	216	235	-----	370	-----	117	-----	57	181	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	1,680	18	271	0.686	1.02
November.....	2,760	59	281	.918	1.02
December.....	1,900	139	444	1.45	1.67
January.....	790	117	280	.915	1.06
February.....	1,440	174	386	1.26	1.36
March.....	1,390	139	308	.990	1.14
April.....	2,760	174	481	1.57	1.75
May.....	414	107	180	.588	.68
June.....	321	71	133	.435	.49
July.....	710	20	98.6	.322	.37
August.....	3,990	23	544	1.78	2.06
September.....	2,110	137	481	1.57	1.75
The year.....	3,990	18	323	1.06	14.36

* Estimated.

APPOMATTOX RIVER AT MATTOAX, VA.

LOCATION.—Chain gage on Southern Railway bridge at Mattoax, Amelia County, one-fourth mile above Skinquarter Creek.

DRAINAGE AREA.—745 miles.

RECORDS AVAILABLE.—August, 1900, to December, 1905; March, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 7,340 second-feet Aug. 15 (gage height, 25.94 feet); minimum, 60 second-feet Oct. 2 (gage height, 4.43 feet).

1900-1905, 1926-1928: Maximum discharge, 12,200 second-feet May 25, 1901 (gage height, 24.6 feet old datum); minimum, 42 second-feet Sept. 28 and Oct. 13, 1926.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	162	254	596	536	436	728	6,390	222	576	85	358
2	64	162	358	706	576	416	516	5,010	222	322	76	376
3	68	162	1,280	416	640	396	456	1,180	206	222	76	640
4	155	190	2,470	222	596	376	416	794	222	183	100	862
5	1,580	206	2,780	340	596	358	416	706	254	162	206	962
6	1,860	206	3,210	376	816	358	396	618	286	162	169	2,360
7	576	190	3,610	396	1,020	340	376	576	270	145	254	2,970
8	322	176	3,850	456	1,370	340	496	576	238	134	141	3,210
9	270	198	2,540	476	2,440	376	496	618	222	116	105	3,530
10	516	254	1,400	536	2,580	556	576	728	206	116	95	2,160
11	516	286	772	618	2,610	618	1,020	662	206	222	988	618
12	358	238	662	516	986	536	2,020	536	222	254	5,050	496
13	556	206	618	456	728	516	2,330	476	206	183	5,900	436
14	1,160	190	556	416	684	476	2,400	416	206	145	6,700	396
15	1,160	183	516	396	1,430	416	862	396	198	148	7,240	340
16	436	183	662	376	1,760	456	684	376	176	516	5,940	304
17	322	198	1,400	358	1,130	684	596	376	176	222	2,540	286
18	270	706	1,370	340	936	2,160	536	358	169	183	2,540	322
19	270	2,020	910	456	1,040	2,610	496	340	176	190	2,680	1,640
20	270	2,360	596	1,220	886	2,820	476	322	396	148	3,130	2,930
21	254	2,750	496	1,520	662	2,220	456	304	358	116	1,040	3,330
22	222	596	476	910	596	816	516	304	304	100	640	3,690
23	190	436	436	576	556	684	706	286	286	95	476	3,890
24	176	396	396	516	618	618	1,340	286	222	90	396	750
25	162	358	340	728	618	556	1,670	286	340	85	376	556
26	162	304	286	1,370	536	516	1,130	286	684	80	516	476
27	162	286	254	1,070	476	516	862	270	516	80	396	416
28	155	270	304	706	456	456	4,250	254	376	222	576	376
29	162	270	358	556	436	436	4,530	254	358	134	436	358
30	162	254	496	396	-----	476	5,760	254	436	148	304	496
31	155	-----	516	516	-----	728	-----	254	-----	110	286	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,850	64	412	0.553	0.64
November	2,750	162	480	.644	.72
December	3,850	254	1,100	1.48	1.71
January	1,520	222	598	.803	.93
February	2,610	436	975	1.31	1.41
March	2,820	340	750	1.01	1.16
April	5,760	376	1,250	1.68	1.87
May	6,390	254	790	1.06	1.22
June	684	169	279	.374	.42
July	576	80	181	.243	.28
August	7,240	76	1,600	2.15	2.48
September	3,890	286	1,320	1.77	1.98
The year	7,240	64	810	1.09	14.82

APPOMATTOX RIVER NEAR PETERSBURG, VA.

LOCATION.—Water-stage recorder $1\frac{1}{2}$ miles above dam of Virginia Electric & Power Co., 6 miles west of Petersburg, Dinwiddie County, and half a mile above Wallace Creek.

DRAINAGE AREA.—1,340 square miles.

RECORDS AVAILABLE.—May, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 8,710 second-feet Apr. 30 (gage height, 9.53 feet); minimum, 61 second-feet Oct. 4 (gage height, 1.38 feet).
1927-28: Maximum discharge, that of Apr. 30, 1928; minimum, 38 second-feet Aug. 1, 1927 (gage height, 1.24 feet).

REMARKS.—Records excellent. Discharge estimated Aug. 6-13.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	198	327	1,060	858	686	1,170	8,030	400	1,340	134	388
2	92	193	406	1,110	1,010	638	1,030	7,640	376	893	116	491
3	95	193	1,070	884	1,190	581	782	7,770	309	478	123	907
4	74	198	3,370	560	1,290	567	646	4,090	309	370	98	1,660
5	720	209	4,210	436	1,290	539	623	1,340	418	365	120	1,600
6	1,910	290	4,090	418	1,620	525	602	1,110	460	354	220	3,610
7	1,620	274	4,090	532	1,910	504	595	1,010	466	306	290	5,170
8	518	254	4,980	646	2,370	504	616	992	418	269	810	5,060
9	398	240	4,810	734	3,610	646	782	1,120	370	230	250	4,450
10	376	290	3,220	983	4,090	1,090	1,000	1,520	348	245	170	3,900
11	710	338	1,810	1,120	3,850	1,160	1,790	1,380	382	424	500	1,000
12	638	365	1,200	1,080	2,760	1,200	3,440	1,090	365	382		952
13	690	316	1,020	832	1,520	1,100	3,850	888	382	388	6,990	774
14	1,010	274	962	702	1,240	974	3,490	702	365	388	6,621	621
15	1,800	204	824	588	1,730	850	2,300	630	348	316	7,250	517
16	1,010	254	1,140	574	2,510	949	1,340	609	311	581	7,770	478
17	490	269	1,960	546	2,360	1,430	1,110	588	280	511	8,430	495
18	354	400	2,310	532	1,810	3,240	956	566	285	316	7,600	514
19	321	1,780	1,810	790	1,800	4,090	841	560	300	235	3,590	2,990
20	316	2,510	1,130	1,700	1,760	4,090	807	560	620	274	3,050	5,300
21	327	2,830	886	2,410	1,880	3,970	782	525	1,170	211	2,940	5,560
22	295	1,970	750	2,060	1,080	2,520	884	525	1,100	170	1,160	5,300
23	280	630	654	1,230	1,000	1,360	2,890	504	807	146	669	4,570
24	226	490	574	947	1,020	1,150	4,310	494	560	142	465	5,470
25	207	436	511	1,520	1,040	1,010	4,090	472	448	184	504	1,190
26	193	400	484	2,060	965	938	3,160	406	920	123	765	867
27	193	365	436	2,310	824	893	2,450	454	1,150	123	799	685
28	136	348	430	1,570	758	858	7,400	436	750	162	605	621
29	193	348	581	1,040	726	758	8,290	442	807	906	701	568
30	198	332	630	841	-----	702	8,710	436	1,380	179	484	653
31	198	-----	841	418	-----	920	-----	424	-----	175	378	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,910	74	501	0.374	0.43
November	2,830	193	577	.431	.48
December	4,980	327	1,700	1.27	1.46
January	2,410	413	1,040	.776	.89
February	4,090	726	1,700	1.27	1.37
March	4,690	504	1,340	1.00	1.15
April	8,710	595	2,340	1.75	1.95
May	8,030	424	1,530	1.14	1.31
June	1,380	280	557	.416	.46
July	1,340	123	340	.254	.29
August	8,430	98	1,850	1.38	1.59
September	5,560	388	2,170	1.62	1.81
The year	8,710	74	1,300	.970	13.19

DISMAL SWAMP BASIN

LAKE DRUMMOND IN DISMAL SWAMP, VA.

LOCATION.—Staff gage on east side of lake above outlet gates of feeder to Dismal Swamp Canal, Norfolk County, about 25 miles from Norfolk and 4 miles from North Carolina line.

RECORDS AVAILABLE.—May, 1926, to September, 1928.

EXTREMES.—Maximum stage during year, 5.44 feet Dec. 9 and 10; minimum, 3.00 feet Jan. 17.

1926-1928: Maximum stage, 5.90 feet May 11, 1927; minimum, 0.10 foot Dec. 9, 1926.

REMARKS.—Records good.

Daily gage height, in feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	4.56	4.42	4.67	4.17	3.77	3.96	3.93	4.12	3.73	3.58	3.81	3.36
2.....	4.54	4.41	4.67	4.06	3.74	3.95	3.92	4.05	3.70	3.54	3.79	3.36
3.....	4.52	4.37	4.74	3.90	3.72	3.95	3.90	4.02	3.70	3.50	3.80	3.36
4.....	4.56	4.59	4.98	4.03	3.72	3.90	3.90	3.98	3.79	3.48	3.72	3.38
5.....	4.55	4.58	4.98	4.00	3.71	3.89	3.87	3.92	3.84	3.44	3.72	3.38
6.....	4.49	4.50	5.15	3.94	3.71	3.84	3.86	3.87	3.83	3.44	3.74	3.40
7.....	4.46	4.40	5.22	3.82	3.70	3.80	3.86	3.78	3.82	3.40	3.67	3.44
8.....	4.46	4.38	5.35	3.88	3.74	3.76	3.90	3.76	3.80	3.37	3.71	3.44
9.....	4.75	4.30	5.42	3.95	3.72	3.78	3.89	3.77	3.76	3.34	3.78	3.40
10.....	4.82	4.32	5.43	3.90	3.70	3.78	4.00	3.70	3.70	3.34	3.72	3.40
11.....	4.79	4.36	5.40	3.88	3.71	3.76	4.00	3.71	3.77	3.30	3.68	3.36
12.....	4.78	4.34	5.34	3.82	3.68	3.79	4.05	3.77	3.80	3.42	3.72	3.40
13.....	4.81	4.35	5.26	3.81	3.70	3.72	4.05	3.78	3.80	3.48	3.62	3.42
14.....	4.72	4.31	5.17	3.76	3.70	3.76	4.08	3.80	3.82	3.49	3.58	3.44
15.....	4.70	4.35	5.10	3.75	3.76	3.76	4.13	3.78	3.81	3.56	3.56	3.41
16.....	4.70	4.37	5.25	3.72	3.76	3.80	4.21	3.78	3.76	3.64	3.58	3.42
17.....	4.68	4.39	5.24	3.48	3.76	3.85	4.24	3.76	3.76	3.75	3.56	3.40
18.....	4.68	4.54	5.20	3.72	3.90	3.97	4.25	3.74	3.72	3.78	3.56	3.54
19.....	4.65	4.44	5.19	3.86	3.75	3.92	4.26	3.74	3.72	3.83	3.54	3.75
20.....	4.66	4.40	5.18	3.87	3.76	3.96	4.26	3.76	3.72	3.98	3.50	3.75
21.....	4.70	4.40	5.18	3.89	3.72	3.95	4.25	3.74	3.70	4.04	3.49	3.88
22.....	4.70	4.44	5.10	3.75	3.70	3.99	4.24	3.74	3.71	4.06	3.50	4.24
23.....	4.68	4.51	5.02	3.79	3.88	3.98	4.22	3.72	3.66	4.10	3.45	4.45
24.....	4.62	4.58	4.92	3.62	3.89	4.02	4.30	3.69	3.63	4.05	3.44	4.56
25.....	4.58	4.64	4.82	3.94	3.90	3.99	4.22	3.66	3.58	4.10	3.43	4.47
26.....	4.54	4.62	4.69	3.84	3.92	4.00	4.22	3.72	3.58	4.20	3.40	4.44
27.....	4.50	4.66	4.56	3.82	3.95	3.99	4.23	3.80	3.55	4.16	3.37	4.40
28.....	4.46	4.68	4.42	3.84	3.94	3.89	4.21	3.75	3.60	4.12	3.38	4.40
29.....	4.44	4.70	4.29	3.72	3.96	3.84	4.16	3.74	3.58	4.06	3.32	4.36
30.....	4.47	4.67	4.18	3.74	-----	3.88	4.12	3.76	3.60	3.98	3.29	4.18
31.....	4.45	-----	4.12	3.75	-----	3.85	-----	3.76	-----	3.90	3.32	-----

ROANOKE RIVER BASIN

ROANOKE RIVER AT ROANOKE, VA.

LOCATION.—Chain gage at Walnut Street highway bridge in Roanoke, Roanoke County.

DRAINAGE AREA.—388 square miles.

RECORDS AVAILABLE.—July, 1896, to September, 1928.

EXTREMES.—Maximum discharge during year, 9,230 second-feet Sept. 20 (gage height, 10.39 feet); minimum, 81 second-feet July 26 and 30 (gage height, 0.78 foot).

1896-1928: Maximum discharge, 16,900 second-feet Aug. 6, 1901 (gage height, 14.34 feet); practically no flow Dec. 23, 1909 (gage height, 0.0 foot).
REMARKS.—Records fair. No records Oct. 1 to Jan 16.

Daily and monthly discharge, in second-feet, 1927-28

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		276	224	* 600	654	145	* 140	84	423
2		296	207	224	545	155	113	88	910
3		276	201	207	446	* 164	145	104	910
4		240	* 201	195	378	172	* 120	92	840
5		* 258	201	201	356	177	113	* 120	990
6		276	195	207	* 350	201	108	* 110	7, 190
7		276	183	224	400	207	108	* 110	3, 170
8		400	195	* 250	378	183	* 104	100	1, 590
9		775	201	201	356	161	100	92	840
10		684	258	207	356	* 161	* 200	88	775
11		545	* 232	356	356	161	296	201	626
12		* 462	207	1, 070	315	177	140	* 870	494
13		378	224	713	* 286	207	520	276	446
14		400	224	626	258	189	240	207	423
15		520	224	* 513	240	166	* 180	183	400
16		446	240	400	240	145	140	5, 590	* 1, 120
17		224	296	336	224	* 140	131	5, 040	* 900
18		224	423	* 380	336	356	136	117	* 690
19		684	* 380	378	315	446	131	104	* 1, 100
20		1, 870	336	378	276	* 371	131	88	684
21		1, 030	315	572	258	296	136	92	572
22		* 700	* 315	545	* 258	276	131	* 88	470
23		545	315	545	258	240	136	84	400
24		494	296	520	258	240	* 139	84	356
25		520	315	* 472	224	207	* 142	88	1, 590
26		423	* 286	423	207	207	145	* 81	* 850
27		400	258	378	201	* 204	140	88	1, 680
28		423	240	396	2, 170	201	131	150	775
29		* 369	240	296	* 1, 490	177	131	* 110	572
30		315	276	808	* 172	* 160	81	470	* 850
31		315	258	166	166		88	400	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
January 17-31	1, 870	224	569	1.47	0.82
February	775	240	366	.943	1.02
March	572	183	305	.786	.91
April	2, 170	195	453	1.17	1.30
May	654	166	313	.807	.93
June	207	131	156	.402	.45
July	520	81	137	.353	.41
August	5, 590	84	814	2.10	2.42
September	9, 230	400	1, 520	3.92	4.37

* Interpolated or estimated.

ROANOKE RIVER AT NIAGARA, VA.

LOCATION.—Water-stage recorder 500 feet below power plant of the Appalachian Electric Power Co. at Niagara, Roanoke County, and 2 miles below mouth of Tinker Creek.

DRAINAGE AREA.—511 square miles.

RECORDS AVAILABLE.—July, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 16,300 second-feet Aug. 16 (gage height, 17.36 feet); minimum, 45 second-feet Jan. 2 (gage height, 0.88 foot).
1926-1928: Maximum discharge, that of Aug. 16, 1928; minimum, 14 second-feet July 11, 1926 (gage height, 0.45 foot).

REMARKS.—Records excellent. Discharge estimated Oct. 13, Dec. 6, 7, 24-28, June 1 and 2. Flow regulated at dam and power plant 500 feet above station.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	118	164	218	942	456	384	765	925	260	203	134	765
2.....	112	160	894	528	414	365	378	787	240	160	136	1,560
3.....	254	187	3,090	490	408	338	340	637	235	201	145	1,300
4.....	392	176	1,660	448	383	330	335	557	263	172	125	1,100
5.....	186	168	1,270	411	306	352	305	576	255	170	170	1,110
6.....	178	170	960	448	431	289	316	490	372	162	162	7,210
7.....	186	173	810	429	431	331	313	538	329	157	160	8,930
8.....	156	208	3,450	430	834	291	346	538	248	136	162	2,140
9.....	174	395	1,960	431	1,080	374	283	557	245	136	134	1,410
10.....	167	297	1,170	482	878	362	354	538	240	313	138	1,410
11.....	164	242	906	376	722	339	581	501	235	360	708	948
12.....	240	220	795	406	616	335	1,090	465	250	359	1,150	787
13.....	3,400	199	802	364	520	321	948	448	268	368	465	722
14.....	387	197	729	365	616	324	765	428	270	349	302	637
15.....	309	199	709	359	658	346	658	378	226	233	302	939
16.....	234	196	1,340	353	616	361	557	360	205	208	7,830	1,480
17.....	262	362	1,810	356	557	399	483	372	208	190	7,820	948
18.....	309	829	1,190	393	576	507	448	726	188	197	2,920	902
19.....	225	515	929	1,660	520	501	421	557	190	151	1,530	5,220
20.....	212	408	666	1,940	501	538	415	483	182	149	1,100	8,780
21.....	197	302	649	1,190	448	678	402	448	192	155	878	3,460
22.....	182	332	560	879	421	700	387	321	217	149	832	2,000
23.....	192	265	501	754	465	700	393	390	197	145	679	1,560
24.....	171	272	670	510	510	658	409	396	178	127	668	1,240
25.....	186	245	749	425	596	396	289	180	114	1,610	722	1,020
26.....	164	228	430	586	418	538	326	335	226	121	1,110	925
27.....	173	235	566	566	399	520	604	286	214	138	2,150	787
28.....	168	226	521	405	448	2,190	329	199	251	1,220	700	700
29.....	161	227	431	428	399	465	1,440	286	199	164	878	679
30.....	169	228	412	465	412	1,100	226	240	136	722	1,100	1,100
31.....	162	646	488	488	425	425	278	278	132	616	616	616

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	3,400	112	309	0.605	0.70
November.....	829	160	268	.524	.58
December.....	3,450	218	994	1.94	2.24
January.....	1,940	353	610	1.19	1.37
February.....	1,080	383	535	1.05	1.13
March.....	700	289	436	.853	.98
April.....	2,190	283	592	1.16	1.29
May.....	925	226	466	.912	1.05
June.....	372	178	232	.454	.51
July.....	368	114	194	.380	.44
August.....	7,830	125	1,190	2.33	2.69
September.....	8,730	637	1,890	3.70	4.13
The year.....	8,730	112	642	1.26	17.11

ROANOKE RIVER NEAR TOSHES, VA.

LOCATION.—Staff gage three-fourths mile below Smith Mountain Gap, 3 miles above Pigg River and 7 miles northwest of Toshes, Pittsylvania County.

DRAINAGE AREA.—1,020 square miles.

RECORDS AVAILABLE.—September, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 25,200 second-feet Aug. 11; minimum, 235 second-feet Oct. 1 and 2 (gage height, 1.18 feet).

1925-1928: Maximum discharge, that of Aug. 11, 1928; minimum, 150 second-feet Sept. 9, 10, and 13, 1925 (gage height, 1.00 foot).

REMARKS.—Records good. Stage-discharge relation affected by ice Dec. 25-27 and Jan. 27 to Feb. 3.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	235	400	400	690	*670	720	780	1,320	482	400	285	2,180
2.....	235	400	905	660		660	750	1,640	455	400	285	3,800
3.....	455	400	4,520	630		660	750	1,320	455	372	285	2,750
4.....	2,270	400	4,400	630		660	690	1,010	482	372	280	2,180
5.....	* 840	400	3,250	630		630	720	905	482	345	285	3,120
6.....	* 600	400	2,850	630	660	660	720	905	482	340	285	12,900
7.....	* 400	400	2,360	720	905	690	720	905	455	330	510	9,860
8.....	* 350	510	*5,600	720	1,400	690	750	940	482	305	428	5,020
9.....	* 450	510	*4,000	750	2,270	750	750	905	482	300	330	2,180
10.....	* 500	510	2,000	780	1,820	*950	750	905	482	295	305	1,910
11.....	* 400	540	1,640	750	1,480	*1,000	1,480	870	455	305	12,100	1,640
12.....	* 800	510	1,560	750	1,320	* 900	2,360	810	455	540	16,600	1,400
13.....	6,860	455	1,240	750	1,240	* 950	1,400	810	482	4,400	3,350	1,160
14.....	1,400	400	1,080	720	1,480	750	1,240	780	482	1,080	1,240	1,080
15.....	905	400	1,240	690	1,640	750	1,240	720	482	* 780	1,000	1,080
16.....	* 800	400	*2,400	690	1,400	780	1,080	660	482	* 440	10,300	3,250
17.....	* 600	600	*2,900	690	1,080	905	1,010	600	455	* 420	18,200	2,000
18.....	*1,000	1,320	*2,700	750	1,160	1,160	810	940	428	* 340	6,960	1,820
19.....	* 750	1,010	1,400	1,160	940	1,240	750	1,010	400	* 330	3,500	8,700
20.....	510	870	1,080	2,360	870	1,080	750	810	400	* 320	2,270	16,000
21.....	455	630	1,010	1,730	870	1,080	750	750	400	325	2,270	7,580
22.....	400	570	1,010	1,400	810	1,010	750	720	400	305	1,910	4,100
23.....	400	510	870	*1,200	905	1,010	750	690	400	305	*1,350	2,650
24.....	400	510	810	*1,050	940	1,010	810	660	400	305	*1,030	2,270
25.....	400	510	* 700	*1,700	940	1,010	750	600	428	290	*2,820	2,060
26.....	400	482		1,240	905	1,010	690	570	455	290	*2,200	1,820
27.....	400	428		* 830	780	940	1,010	570	482	285	*2,730	1,560
28.....	400	400	870		750	905	3,920	540	455	482	2,180	1,320
29.....	400	400	810		750	870	2,850	540	455	330	*1,620	1,480
30.....	400	400	810		-----	840	2,090	510	400	285	*1,380	2,270
31.....	400	-----	720			780	-----	482	-----	280	*1,650	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	6,860	235	800	0.784	0.90
November.....	1,320	400	522	.512	.57
December.....	5,600	400	1,820	1.78	2.05
January.....	2,360	630	923	.905	1.04
February.....	2,270	630	1,050	1.08	1.11
March.....	1,240	630	873	.856	.99
April.....	3,920	690	1,130	1.11	1.24
May.....	1,820	482	835	.819	.94
June.....	482	400	451	.442	.49
July.....	4,400	280	513	.503	.58
August.....	18,200	280	3,220	3.16	3.64
September.....	16,000	1,080	3,710	3.64	4.06
The year.....	18,200	235	1,320	1.20	17.61

* Estimated.

ROANOKE RIVER NEAR GRETN, VA.

LOCATION.—Chain gage on highway bridge at Tolers Ferry, seven-eighths mile below Pigg River and 8 miles northwest of Gretna, Pittsylvania County.

DRAINAGE AREA.—1,430 square miles.

RECORDS AVAILABLE.—March, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 35,700 second-feet Aug. 11; minimum, 300 second-feet Aug. 1 (gage height, 3.30 feet).

1925-1928: Maximum discharge, that of Aug. 11, 1928; minimum, 170 second-feet July 23, 1926 (gage height, 2.90 feet).

Flood of September, 1924, reached a stage of 17.8 feet (discharge, 17,400 second-feet).

REMARKS.—Records good. Discharge estimated Jan. 29 to Feb. 5 because of ice.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	340	470	570	1,920		1,030	1,170	2,590	720	570	300	1,450
2.....	340	520	1,310	1,310		960	1,170	2,160	720	520	* 510	2,680
3.....	* 650	520	6,380	960	850	1,030	1,100	1,680	720	470	720	3,060
4.....	3,060	570	6,120	* 860		1,100	960	* 1,520	840	420	670	2,240
5.....	1,170	520	3,960	* 860		900	840	* 1,310	780	400	620	1,840
6.....	340	520	4,060	960	1,170	960	840	1,450	340	380	495	16,100
7.....	570	520	4,260	960	1,240	900	840	1,380	720	380	620	18,200
8.....	470	545	7,880		2,080	840	960	1,380	780	* 360	620	5,180
9.....	780	720	5,620		3,060	1,030	900	1,310	670	* 350	470	3,260
10.....	900	1,080	2,960	* 1,150	* 2,500	1,310	1,380	1,380	670	* 550	520	2,500
11.....	670	595	2,160		* 1,840	1,380	2,960	1,240	670	* 560	18,500	2,080
12.....	1,030	620	2,240		1,600	1,240	4,620	1,170	670	* 750	26,300	1,840
13.....	8,300	570	2,320	1,030	1,520	1,310	2,960	1,170	720	5,620	7,130	1,600
14.....	2,160	520	1,920	960	2,000	960	2,590	1,030	720	1,680	1,760	1,450
15.....	1,240	570	1,840	960	2,500	960	2,410	900	645	1,100	1,310	1,310
16.....	1,100	520	3,460	960	2,000	1,100	1,680	840	595	620	12,400	3,720
17.....	840	900	4,060	900	1,680	1,760	1,450	900	570	595	27,700	2,450
18.....	1,380	2,500	3,860	840	1,840	2,500	1,380	1,170	570	470	9,930	2,650
19.....	1,030	1,600	2,160	2,000	1,600	2,320	1,240	1,680	570	420	3,960	9,280
20.....	780	1,170	1,600	4,160	1,520	1,760	1,100	1,380	545	445	2,770	19,600
21.....	620	900	1,240	2,860	1,280	1,600	960	1,170	520	520	2,860	10,900
22.....	620	780	1,380	1,840	1,170	1,760	1,240	960	620	* 400	2,770	6,800
23.....	620	720	1,240	1,680	1,600	1,450	1,170	900	670	570	1,840	4,630
24.....	670	720	1,100	1,450	1,520	1,240	1,170	960	670	470	1,520	3,260
25.....	470	645	960	2,410	1,310	1,600	1,170	960	645	380	3,780	2,660
26.....	470	570	780	1,840	1,170	1,380	1,030	840	595	340	2,860	2,000
27.....	570	595	840	1,450	1,170	1,240	2,320	780	670	340	3,960	1,840
28.....	520	495	1,100	1,310	1,100	1,100	7,180	720	645	840	2,500	1,600
29.....	570	545	1,100		1,100	1,170	3,860	900	620	620	1,840	1,600
30.....	495	520	1,030	1,000		1,380	2,770	720	620	445	1,450	2,680
31.....	470		1,100			1,310		620		360	1,840	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	8,300	340	1,090	0.762	0.88
November.....	2,500	470	733	.513	.57
December.....	7,880	570	2,600	1.82	2.10
January.....	4,160	840	1,390	.972	1.12
February.....	3,060		1,510	1.06	1.14
March.....	2,500	840	1,310	.916	1.06
April.....	7,180	840	1,860	1.30	1.45
May.....	2,590	620	1,200	.889	.97
June.....	840	520	667	.466	.52
July.....	5,620	340	708	.495	.57
August.....	27,700	300	4,660	3.26	3.76
September.....	19,600	1,310	4,520	3.16	3.53
The year.....	27,700	300	1,850	1.29	17.67

* Estimated.

ROANOKE RIVER AT BROOKNEAL, VA.

LOCATION.—Chain gage on highway bridge at Virginian Railway station at Brookneal, Campbell County, $2\frac{3}{4}$ miles above Falling River.

DRAINAGE AREA.—2,420 square miles.

RECORDS AVAILABLE.—April, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 39,000 second-feet Aug. 12 (gage height, 37.15 feet); minimum, 560 second-feet July 27 (gage height, 3.21 feet).

1923-1928: Maximum discharge, that of Aug. 12, 1923; minimum, 370 second-feet Sept. 28, 1926 (gage height, 2.78 feet).

Flood of November, 1877, reached stage of about 36 feet; flood of Mar. 15, 1923, about 31 feet.

REMARKS.—Records fair. Discharge estimated Dec. 23-31 and Jan. 29 to Feb. 6 because of ice.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	• 570		1,120	• 2,800	1,900	1,980	• 1,820	3,800	1,180	• 970	610	2,000
2	• 570		1,540	• 2,500	1,800	1,980	1,750	3,260	1,180	940	660	• 3,700
3	7,380		6,060	2,060	1,750	1,820	1,680	2,900	• 1,190	880	820	• 5,210
4	16,600	• 950	9,150	1,680	1,750	• 1,780	1,680	2,470	1,180	780	780	3,270
5	4,260		9,360	• 1,400	1,750	1,750	1,680	2,300	1,190	760	• 730	3,570
6			8,130	• 1,750	2,000	1,680	1,610	• 2,220	1,190	710	710	12,100
7	2,300		6,640	• 1,750	2,220	1,680	1,680	2,140	1,180	710	940	24,690
8	2,300		7,430	• 2,000	3,710	1,680	• 1,750	2,220	1,190	• 670	1,120	• 5,350
9	2,300	• 1,000	10,100	2,470	6,350	1,980	1,820	2,220	1,120	635	1,180	• 6,450
10	2,300	• 1,400	5,780	2,900	4,830	2,220	2,140	2,220	• 1,190	760	1,190	• 4,690
11	2,380	1,540	• 4,790	2,560	3,710	• 2,400	3,260	2,060	1,260	760	11,800	2,710
12	2,810	1,330	3,800	2,300	• 3,220	2,060	10,200	1,980	1,120	760	37,000	2,710
13	17,700	1,190	3,980	2,140	2,720	1,980	5,400	• 1,860	1,120	940	21,700	2,680
14	7,080	1,120	3,620	1,980	2,960	1,900	3,800	1,750	1,120	6,640	6,780	2,850
15	• 4,920	1,000	3,170	1,900	5,120	1,750	• 3,300	1,680	1,190	• 2,000	1,810	2,010
16	• 4,450	1,000	4,450	1,820	• 4,100	1,980	2,810	1,680	1,120	1,330	5,380	• 4,240
17	• 3,080	2,380	5,880	1,820	3,060	2,380	2,470	1,610	• 1,000	1,000	51,700	3,370
18	• 2,150	6,060	4,930	1,820	2,810	• 3,420	2,140	1,820	880	1,060	27,400	3,370
19	• 1,900	3,800	3,980	3,060	• 2,680	4,450	2,060	2,220	880	1,190	11,400	17,400
20	• 1,750	1,980	3,260	5,970	2,560	3,350	1,980	• 2,000	880	880	4,170	26,400
21	• 1,600	1,900	2,900	• 5,210	2,380	2,810	• 2,060	1,750	880	760	3,770	18,700
22	• 1,450	1,610	2,640	• 4,190	2,300	2,470	• 2,060	1,680	940	• 730	4,070	9,690
23	• 1,300	1,470	2,200	3,170	2,640	2,470	2,060	1,610	1,000	710	4,170	• 6,800
24	• 1,200	1,470	2,100	2,990	2,990	2,300	2,140	1,540	• 1,030	1,000	2,260	5,000
25	• 1,100	1,400	2,000	4,740	2,720	• 2,260	2,140	1,540	• 1,000	880	2,980	3,870
26	• 1,000	1,330	1,850	3,980	• 2,470	2,220	1,900	• 1,470	1,000	660	• 4,360	2,980
27		• 1,260	1,750	3,170	2,220	2,140	5,590	• 1,430	1,000	585	5,740	2,710
28		1,190	1,800	2,900	2,140	1,980	13,500	1,400	1,060	620	4,480	2,620
29		1,190	1,900	2,500	2,060	1,900	• 8,500	1,400	1,060	• 900	2,800	2,440
30		1,190	2,000	2,100	-----	2,060	4,920	1,330	1,000	760	2,170	• 3,700
31		-----	2,100	2,000	-----	1,900	-----	1,260	-----	710	2,060	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	17,700	-----	3,260	1,360	1.57
November	6,060	-----	1,510	1,624	.70
December	10,100	1,120	4,210	1.74	2.01
January	5,970	1,400	2,700	1.12	1.39
February	6,350	1,750	2,860	1.18	1.27
March	4,450	1,680	2,220	1.017	1.06
April	13,500	1,610	3,330	1.38	1.54
May	3,800	1,260	1,960	.810	.83
June	1,260	880	1,050	.446	.50
July	6,640	585	1,060	.438	.50
August	37,000	610	6,670	2.76	3.18
September	26,600	2,010	6,670	2.76	3.08
The year	37,000	-----	3,130	1.29	17.68

• Estimated.

ROANOKE RIVER AT RANDOLPH, VA.

LOCATION.—Chain gage on Southern Railway bridge three-fourths mile southwest of Randolph station, Charlotte County, and 1 mile above Roanoke Creek.

DRAINAGE AREA.—3,080 square miles.

RECORDS AVAILABLE.—August, 1900, to August, 1906; October, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 41,200 second-feet Aug. 13 (gage height, 32.46 feet); minimum, 800 second-feet Aug. 3 (gage height, 3.57 feet).
1900–1906, 1927–28: Maximum discharge, about 80,000 second-feet Dec. 30, 1901 (gage height, 34.0 feet, old datum); minimum, 590 second-feet Oct. 18, 1904 (gage height, 2.5 feet, old datum).

REMARKS.—Records good. Discharge estimated Feb. 1–6 because of ice.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		1,200	1,350	3,020	2,150	2,210	2,500	5,120	1,350	1,300	905	3,400
2		1,200	2,000	2,720	2,050	2,070	2,140	4,180	1,350	1,200	835	3,770
3		1,200	5,710	2,570	2,000	2,070	2,000	3,540	1,300	1,110	800	5,310
4		1,200	18,000	1,850	2,000	2,070	1,930	3,170	1,350	1,020	945	5,520
5		1,250	17,200	1,520	1,950	1,930	1,930	2,800	1,460	985	1,250	5,130
6		1,200	13,300	1,930	2,050	1,860	1,930	2,500	1,460	905	985	10,700
7		1,160	10,700	1,930	2,640	1,860	1,860	2,570	1,520	905	1,300	22,000
8		1,110	10,500	2,210	3,860	1,790	2,000	2,500	1,460	835	1,250	26,400
9		1,200	14,600	2,500	9,680	1,860	2,140	2,570	1,400	870	1,160	13,300
10		1,650	10,400	3,170	7,430	2,570	2,070	2,500	1,350	905	985	6,090
11		1,720	5,610	3,020	4,780	2,720	3,320	2,500	1,350	1,060	1,650	4,370
12		1,650	3,940	2,570	3,780	2,640	11,400	2,280	1,350	1,060	23,300	3,840
13		1,400	4,020	2,280	3,240	2,210	11,500	2,140	1,250	1,060	40,300	3,540
14		1,300	4,020	2,140	3,020	2,070	5,410	2,000	1,300	8,880	28,800	3,100
15		1,250	4,020	2,000	4,420	2,000	4,020	1,930	1,250	4,420	7,070	2,870
16		1,250	4,670	1,930	5,310	2,000	3,470	1,930	1,250	2,210	5,510	3,240
17		1,930	6,250	1,930	3,940	2,500	3,020	1,790	1,200	1,460	23,100	5,040
18		12,400	4,940	2,000	3,700	5,810	2,640	1,790	1,110	1,250	38,800	4,070
19		7,690	4,180	3,020	3,620	6,470	2,500	2,070	1,060	1,060	32,800	4,590
20		4,100	3,700	5,610	3,240	5,310	2,350	2,420	1,110	1,200	14,500	20,400
21		2,800	3,100	6,470	2,800	4,020	2,280	2,140	1,110	1,110	5,130	29,000
22	1,720	2,140	2,720	4,580	2,640	3,100	2,350	1,930	1,160	1,060	4,140	23,200
23	1,520	1,860	2,570	3,400	2,640	2,870	3,100	1,790	1,110	1,020	5,410	8,990
24	1,400	1,650	2,420	3,020	3,320	2,900	3,540	1,790	1,160	945	4,220	5,130
25	1,350	1,650	2,210	4,180	3,020	2,640	3,020	1,650	1,200	1,060	3,240	4,590
26	1,300	1,520	2,070	5,210	2,720	2,640	2,720	1,580	1,400	945	5,040	4,140
27	1,250	1,460	2,000	3,940	2,500	2,500	3,470	1,520	1,300	870	7,690	3,620
28	1,250	1,400	1,930	3,240	2,350	2,350	20,200	1,460	1,350	835	6,250	3,320
29	1,250	1,350	2,000	2,720	2,280	2,280	20,200	1,520	1,460	905	4,610	3,020
30	1,200	1,350	2,210	2,500		2,210	8,990	1,460	1,400	1,200	3,700	3,840
31	1,200		2,350	2,280		2,640		1,460		1,110	3,020	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October 22–31	1,720	1,200	1,340	0.435	0.16
November	12,400	1,110	2,140	.695	.78
December	18,000	1,350	5,640	1.83	2.11
January	6,470	1,520	2,950	.958	1.10
February	9,680	1,950	3,420	1.11	1.20
March	6,470	1,790	2,710	.880	1.02
April	20,200	1,860	4,670	1.52	1.70
May	5,120	1,460	2,280	.740	.85
June	1,520	1,060	1,300	.422	.47
July	8,860	835	1,440	.468	.54
August	40,300	800	8,960	2.91	3.36
September	29,000	2,870	8,190	2.66	2.97

ROANOKE RIVER AT OLD GASTON, N. C.

LOCATION.—Water-stage recorder at bridge of Roanoke Railway Co. at Old Gaston, Northampton County, three-fourths mile below Indian Creek.

DRAINAGE AREA.—8,350 square miles.

RECORDS AVAILABLE.—December, 1911, to September, 1928.

EXTREMES.—Maximum discharge during year, 123,000 second-feet Aug. 15 (gauge height, 13.25 feet); minimum, 1,820 second-feet Oct. 2 (gauge height, 1.25 feet).

1911-1928: Maximum discharge, 210,000 second-feet Mar. 18, 1912 (gauge height, 16.6 feet); minimum discharge, 790 second-feet Oct. 1, 1914; minimum gauge height, 0.80 foot Sept. 27, 1926.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,930	2,640	3,300	6,500	6,500	6,120	6,500	30,000	4,360	8,150	2,890	6,120
2	1,820	2,640	3,590	7,300	8,150	6,120	8,150	20,600	4,040	6,900	2,640	6,120
3	1,930	2,640	6,510	7,300	9,040	5,740	6,500	13,200	3,890	4,690	2,270	9,040
4	1,930	2,640	24,500	6,500	8,150	5,380	6,120	10,500	4,040	3,590	2,040	17,400
5	31,300	2,640	52,000	5,380	7,720	5,030	5,740	9,040	6,500	3,160	1,930	22,100
6	39,900	2,640	55,300	5,380	6,900	5,030	5,380	7,720	8,150	3,020	2,510	18,600
7	17,400	2,890	39,000	5,030	7,300	5,380	5,030	6,900	7,300	2,890	3,020	35,280
8	6,900	2,640	29,200	5,380	8,150	5,030	5,030	6,500	6,500	2,640	3,740	46,800
9	5,030	2,390	27,500	5,740	18,600	5,380	5,030	7,720	5,030	2,510	4,690	48,800
10	4,360	2,390	30,800	6,900	23,600	7,300	5,740	10,000	4,360	2,390	4,360	25,900
11	5,380	2,890	22,800	9,040	19,300	7,720	7,300	8,150	4,040	3,300	4,040	12,700
12	6,500	3,440	13,800	9,040	13,200	8,150	16,800	7,300	3,740	4,040	11,700	9,420
13	6,900	3,440	10,500	7,720	10,000	8,150	32,600	6,120	4,040	4,360	46,800	9,420
14	10,100	3,300	9,040	6,900	8,590	7,300	29,200	5,740	3,890	4,690	87,900	8,150
15	25,100	2,760	9,520	6,120	8,590	6,900	16,200	5,380	3,890	10,000	117,000	6,900
16	12,100	2,890	13,200	5,740	10,500	6,500	11,000	5,380	3,740	10,000	32,800	6,120
17	6,900	3,020	21,400	5,030	12,700	9,520	9,520	5,030	3,740	8,150	20,600	5,740
18	5,030	6,780	22,100	5,380	11,000	17,800	8,590	5,030	3,440	6,900	48,800	8,150
19	4,690	22,100	18,600	4,380	11,000	28,300	7,720	4,690	3,020	4,360	77,800	28,300
20	6,120	16,800	13,800	6,900	10,000	10,000	7,300	4,690	3,160	3,300	106,000	51,000
21	6,120	11,000	10,000	11,000	9,040	16,800	6,900	5,740	3,160	3,590	44,500	58,900
22	5,030	6,500	8,590	11,600	8,150	12,100	6,900	5,740	3,590	3,690	12,700	73,300
23	4,360	5,380	7,720	9,040	8,150	9,040	7,300	5,740	3,590	3,160	11,000	77,800
24	3,590	4,690	6,900	6,900	7,720	8,150	11,000	5,380	3,440	2,760	14,400	22,800
25	3,160	4,360	6,500	8,150	7,720	7,720	12,700	5,030	3,160	3,300	10,500	12,100
26	3,020	4,040	5,380	13,200	8,590	7,300	10,000	6,500	3,160	3,740	7,300	10,000
27	3,160	3,740	5,030	13,200	7,720	6,500	9,040	5,740	3,440	3,160	11,000	9,040
28	3,020	3,590	4,690	11,000	6,500	6,500	4,330	4,690	3,440	2,640	12,100	8,150
29	3,020	3,300	4,690	8,590	6,500	6,500	71,800	4,360	3,300	2,270	10,500	7,720
30	2,890	3,160	5,030	7,300	-----	6,120	55,300	5,380	5,080	2,040	9,040	7,720
31	2,640	-----	5,740	6,500	-----	6,120	-----	5,030	-----	2,270	6,900	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	39,900	1,820	7,780	0.932	1.07
November	22,100	2,390	4,780	.572	.64
December	55,300	3,300	16,000	1.52	2.21
January	13,200	5,030	7,590	.909	1.05
February	23,600	6,500	9,970	1.19	1.28
March	28,300	5,030	8,770	1.05	1.20
April	71,800	4,330	13,400	1.60	1.78
May	30,000	4,360	7,710	.922	1.06
June	8,150	3,020	4,210	.504	.56
July	10,000	2,040	4,240	.508	.59
August	117,000	1,930	23,700	2.84	3.27
September	77,800	5,740	22,300	2.67	2.98
The year	117,000	1,820	10,900	1.31	17.69

SURFACE WATER SUPPLY, 1928, PART II

BLACKWATER RIVER NEAR UNION HALL, VA.

LOCATION.—Chain gage on highway bridge at Kemps Ford $1\frac{1}{2}$ miles above Gills Creek and 4 miles north of Union Hall, Franklin County.

DRAINAGE AREA.—208 square miles.

RECORDS AVAILABLE.—March, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 10,800 second-feet Aug. 11; minimum, 29 second-feet Oct. 2 (gage height, 1.44 feet).

1925-1928: Maximum discharge, that of Aug. 11, 1928; minimum, 16 second-feet Sept. 23, 1926 (gage height, 1.32 feet).

REMARKS.—Records fair. Stage-discharge relation affected by ice Jan. 2-9.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	66	66	75	289	167	167	125	367	132	160	75	367
2.....	29	90	298		182	152	197	280	152	96	71	436
3.....	66	101	556		145	145	132	246	182	96	90	321
4.....	460	71	460		220	132	125	220	112	85	75	360
5.....	119	53	390		152	132	145	189	101	90	66	540
6.....	96	49	484	* 180	189	112	160	182	145	75	60	3,500
7.....	80	66	298		125	119	189	145	160	71	190	1,090
8.....	85	132	* 298		344	220	160	229	132	66	200	690
9.....	189	112	* 289		460	197	197	189	197	101	100	360
10.....	229	85	413	344	237	119	220	189	160	49	75	246
11.....	90	85	90	189	220	152	220	152	125	132	5,280	229
12.....	246	119	112	167	182	132	197	167	220	101	5,200	272
13.....	* 1,810	66	* 100	145	160	197	272	160	101	* 2,000	540	197
14.....	* 189	119	90	119	413	132	182	132	152	321	220	220
15.....	167	85	119	152	298	119	182	125	160	189	289	197
16.....	167	101	75	119	220	204	237	152	132	125	3,000	910
17.....	119	* 132	436	125	189	189	197	167	125	132	1,960	690
18.....	145	* 460	197	413	246	289	160	182	96	101	740	237
19.....	132	119	182	436	182	272	182	197	85	66	560	3,060
20.....	119	152	189	237	160	152	204	220	101	90	400	3,120
21.....	101	53	220	197	167	182	237	145	132	101	263	790
22.....	85	85	182	167	167	204	220	160	* 120	53	436	508
23.....	85	101	237	132	182	132	197	167	* 110	119	197	413
24.....	71	112	197	119	197	160	237	152	* 100	96	246	220
25.....	90	90	160	280	220	119	280	197	132	71	737	229
26.....	101	75	167	220	152	167	145	145	119	62	841	237
27.....	62	62	167	189	132	237	182	119	119	119	344	237
28.....	66	53	189	167	167	160	484	160	119	75	298	212
29.....	66	101	229	145	132	152	787	182	145	96	272	321
30.....	119	90	152	160		197	821	125	101	75	229	* 500
31.....	85		321	160		160		145		71	413	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	1,310	29	162	0.779	0.90
November.....	460	49	109	.495	.55
December.....	556	75	233	1.14	1.31
January.....	436	119	197	.947	1.09
February.....	460	125	207	.995	1.07
March.....	289	112	170	.817	.94
April.....	787	125	224	1.08	1.20
May.....	367	119	230	.865	1.00
June.....	220	85	132	.635	.71
July.....	2,000	49	164	.788	.91
August.....	5,280	60	759	3.65	4.21
September.....	3,500	197	690	3.32	3.70
The year.....	5,280	29	269	1.29	17.69

* Estimated.

DAN RIVER NEAR FRANCISCO, N. C.

LOCATION.—Chain gage 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, 1928.

EXTREMES.—Maximum discharge during year (estimated), 8,160 second-feet Aug. 16 (gage height, 9.65 feet); minimum, 48 second-feet Oct. 1 (gage height, 1.04 feet).

1924-1928: Maximum discharge (estimated), 8,700 second-feet Dec. 8, 1924 (gage height, 10.0 feet); minimum, 27 second-feet July 25, 1926 (gage height, 0.78 foot).

REMARKS.—Records good except those for high water, which are fair. Slight diurnal fluctuation caused by operation of gristmills during periods of low water.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1-----	48	83	438	252	141	146	252	236	180	236	118	201
2-----	54	83	625	236	136	146	204	220	157	204	96	204
3-----	118	88	872	236	138	183	198	204	154	198	90	204
4-----	252	88	1,160	236	146	141	186	204	149	177	106	198
5-----	180	88	835	220	149	141	146	198	141	157	141	154
6-----	96	77	485	189	157	141	141	198	138	157	338	2,150
7-----	68	73	236	177	177	141	136	220	133	157	174	438
8-----	62	75	910	174	180	146	125	236	133	338	180	303
9-----	86	75	690	168	180	204	120	236	138	192	192	286
10-----	110	79	690	168	174	186	166	220	149	171	198	286
11-----	90	86	183	166	174	198	1,000	220	143	220	2,110	286
12-----	115	88	146	163	174	198	485	198	141	136	1,700	286
13-----	658	88	118	160	174	198	320	180	133	138	338	303
14-----	538	88	115	154	174	198	236	168	133	141	252	303
15-----	115	88	120	152	189	198	236	152	133	141	269	303
16-----	110	88	375	146	201	236	236	152	133	136	6,460	303
17-----	120	96	141	146	204	204	236	152	128	136	2,930	303
18-----	115	110	160	146	220	204	236	157	128	136	1,600	338
19-----	103	92	123	152	180	204	286	286	125	136	835	1,360
20-----	96	92	136	177	163	192	269	303	115	236	690	1,120
21-----	94	92	146	177	154	174	269	286	138	220	485	510
22-----	90	92	146	163	168	174	303	565	133	141	375	303
23-----	83	92	166	146	236	174	269	286	128	141	269	286
24-----	86	92	174	204	220	174	236	269	130	141	252	286
25-----	90	92	204	269	171	174	204	269	133	141	252	252
26-----	83	88	269	236	152	174	201	252	146	141	236	236
27-----	83	86	269	220	152	171	540	236	188	141	174	236
28-----	83	83	269	146	152	163	760	192	136	141	154	236
29-----	83	81	269	141	146	146	415	192	303	141	146	236
30-----	83	79	252	141	-----	303	269	192	252	133	236	252
31-----	83	-----	252	141	-----	286	-----	192	-----	125	198	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October-----	658	48	131	1.10	1.27
November-----	110	73	86.7	.729	.81
December-----	1,160	115	354	2.97	3.42
January-----	269	141	181	1.52	1.75
February-----	236	136	172	1.45	1.56
March-----	303	141	184	1.55	1.79
April-----	1,000	120	269	2.43	2.71
May-----	565	152	228	1.92	2.21
June-----	303	115	147	1.24	1.38
July-----	338	125	166	1.39	1.60
August-----	6,460	90	697	5.86	6.76
September-----	2,150	154	405	3.40	3.79
The year-----	6,460	48	254	2.13	29.05

DAN RIVER AT SOUTH BOSTON, VA.

LOCATION.—Chain gage on Norfolk & Western Railway bridge at South Boston Halifax County, 6 miles upstream from mouth of Banister River.

DRAINAGE AREA.—2,820 square miles.

RECORDS AVAILABLE.—August, 1900, to May, 1907; April, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 31,800 second-feet Aug. 14 (gage height, 25.79 feet); minimum, 450 second-feet Oct. 2 (gage height, 3.65 feet).
1900–1907, 1923–1928: Maximum discharge, 52,600 second-feet Dec. 31, 1901 (gage height, 25.2 feet, old datum); minimum, 300 second-feet Sept. 11, 1925 (gage height, 3.12 feet).

REMARKS.—Records good. Water supply for South Boston diverted just above gage. Dams and mills at Danville regulate low-water flow to some extent.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	570	910	1,190	2,560	2,000	2,000	4,530	5,100	1,720	3,900	960	3,060
2.....	540	960	1,930	2,960	2,720	1,930	2,720	3,810	1,650	2,080	910	2,320
3.....	540	1,010	5,400	2,320	2,640	1,860	2,160	3,280	1,250	1,440	810	5,610
4.....	18,000	960	16,000	1,440	2,400	1,580	2,160	2,000	1,930	1,190	730	12,500
5.....	18,200	1,130	18,700	1,130	2,640	1,650	2,000	2,640	2,080	1,130	810	5,940
6.....	5,200	1,010	12,800	1,440	2,240	1,790	2,000	2,480	2,640	1,070	1,720	11,300
7.....	2,080	650	10,200	1,510	2,800	1,580	1,720	1,930	2,720	1,070	2,160	17,500
8.....	1,650	1,070	9,460	1,720	2,800	1,650	1,860	2,400	2,160	860	2,480	16,000
9.....	1,510	1,010	10,700	2,160	8,530	1,580	1,860	2,400	1,720	960	2,400	5,610
10.....	2,320	960	7,620	2,640	7,010	2,080	2,080	2,560	1,310	1,860	1,510	4,800
11.....	2,480	1,010	3,900	3,120	4,440	2,800	2,960	2,560	1,720	2,240	2,880	2,880
12.....	2,080	1,130	3,280	2,480	3,040	2,560	11,900	2,320	1,860	2,720	5,830	3,040
13.....	2,480	1,130	2,560	2,320	2,560	2,240	14,300	2,880	1,510	2,320	30,400	2,560
14.....	7,750	810	2,800	2,160	1,860	2,160	6,170	1,510	1,190	1,860	30,400	2,400
15.....	3,630	1,070	2,480	1,720	2,640	1,930	4,170	1,860	1,440	2,960	4,440	2,240
16.....	2,560	1,070	4,710	1,720	5,000	2,720	3,450	1,860	1,650	2,800	4,260	2,080
17.....	1,190	1,130	9,180	1,860	3,280	3,200	2,800	1,860	1,190	2,480	17,000	2,400
18.....	1,720	6,530	8,010	1,650	3,120	8,920	2,560	1,790	1,250	1,720	26,700	3,720
19.....	1,440	4,800	4,350	2,000	3,280	8,660	2,320	1,930	1,720	1,310	27,800	8,010
20.....	1,860	2,960	3,200	2,160	3,360	6,410	2,320	2,000	1,310	1,580	7,750	23,500
21.....	1,190	1,790	2,560	2,240	2,160	3,450	2,560	1,930	1,130	2,560	4,800	28,000
22.....	1,190	1,790	2,240	1,650	2,320	3,040	2,480	2,240	1,130	1,190	2,800	23,100
23.....	1,010	1,310	2,400	1,650	2,240	2,720	3,360	2,240	1,250	960	7,620	5,800
24.....	810	1,250	2,160	1,550	2,480	2,400	3,360	2,080	960	1,130	3,360	3,990
25.....	1,250	1,190	1,790	2,800	3,540	1,860	3,120	4,350	1,580	2,000	2,800	2,880
26.....	860	1,190	1,720	3,630	2,720	2,240	2,800	2,400	1,130	960	3,630	2,800
27.....	960	1,370	1,580	3,450	2,400	2,320	2,400	1,860	1,070	1,130	3,280	3,450
28.....	960	770	1,510	2,640	2,080	2,160	16,200	1,790	1,130	770	3,200	2,400
29.....	960	1,130	1,650	2,080	1,720	1,930	19,300	2,720	1,720	860	2,560	2,240
30.....	1,130	1,130	2,000	1,720	-----	1,930	8,920	2,000	3,630	1,010	2,720	3,040
31.....	960	-----	2,080	1,790	-----	2,400	-----	2,000	-----	910	2,160	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	18,200	540	2,870	1.02	1.18
November.....	6,530	770	1,470	.521	.58
December.....	18,700	1,190	5,170	1.83	2.11
January.....	3,630	1,130	2,140	.759	.88
February.....	8,530	1,720	3,100	1.10	1.20
March.....	8,920	1,580	2,770	.982	1.13
April.....	19,300	1,720	4,680	1.66	1.85
May.....	5,100	1,510	2,440	.865	1.00
June.....	3,630	960	1,620	.574	.64
July.....	3,900	770	1,650	.585	.67
August.....	30,400	730	6,800	2.41	2.78
September.....	28,000	2,000	7,120	2.52	2.81
The year.....	30,400	540	3,490	1.24	16.88

LEATHERWOOD CREEK NEAR OLD LIBERTY, VA.

LOCATION.—Chain gage on highway bridge $1\frac{1}{2}$ miles above mouth and 3 miles from Old Liberty, Henry County.

DRAINAGE AREA.—68 square miles.

RECORDS AVAILABLE.—September, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 2,970 second-feet Aug. 11 (gage height, 14.37 feet); minimum, 9 second-feet Aug. 2 (gage height, 1.38 feet).

1925-1928: Maximum discharge, that of Aug. 11, 1928; minimum, 7 second-feet Sept. 25, 1926 (gage height, 1.52 feet).

REMARKS.—Records fair. Discharge estimated Dec. 26-28 and Jan. 3-8 because of ice.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	11	22	41	*100	94	53	*73	57	23	*38	15	34
2.....	*10	24	145	58	88	48	61	42	22	15	9	*55
3.....	14	26	366	*40	94	46	58	38	26	16	14	76
4.....	430	28	*278	*35	*82	*46	56	38	41	16	14	64
5.....	160	24	190	*30	*70	48	56	38	54	16	*24	45
6.....	36	*22	206	*35	58	46	56	*36	70	15	34	515
7.....	30	24	160	*40	56	32	46	34	25	14	17	136
8.....	28	26	238	*45	286	46	*42	38	29	*14	16	76
9.....	*40	58	182	108	160	79	46	40	22	15	14	*55
10.....	36	34	63	63	88	71	91	40	*22	48	15	34
11.....	28	28	*64	58	71	*80	130	29	22	31	2,970	26
12.....	85	30	66	48	*62	71	515	29	22	22	*1,140	26
13.....	160	*28	34	43	53	63	105	*26	22	16	60	26
14.....	85	30	34	44	71	58	70	22	38	117	35	21
15.....	26	32	58	*42	63	58	*58	25	22	*70	34	26
16.....	*25	32	350	39	56	145	46	23	18	23	225	*250
17.....	24	41	160	36	68	122	44	23	*20	22	617	32
18.....	160	115	*109	36	115	*160	42	76	22	18	76	26
19.....	46	51	58	51	*86	152	40	28	22	31	*60	334
20.....	34	*54	34	88	58	100	46	36	18	20	43	702
21.....	28	44	48	*71	58	85	48	45	18	18	27	87
22.....	26	39	36	*53	58	68	*54	37	18	*18	27	67
23.....	*26	36	30	36	182	63	59	26	18	18	21	*51
24.....	26	34	28	36	108	61	55	25	*18	16	19	35
25.....	24	34	*26	222	79	*58	46	25	17	16	19	34
26.....	24	32	*25	88	*66	61	36	26	17	14	*200	28
27.....	24	*32	*25	61	53	58	48	29	16	14	23	28
28.....	26	32	*25	85	51	46	447	26	16	31	17	27
29.....	24	34	39	*80	58	48	*255	23	18	*24	14	30
30.....	*28	34	41	88	-----	108	63	22	22	16	14	*38
31.....	24	-----	51	85	-----	85	-----	23	-----	18	35	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	430	10	56.4	0.829	0.96
November.....	115	22	36.0	.529	.59
December.....	366	25	104	1.53	1.76
January.....	222	30	62.8	.924	1.07
February.....	286	51	85.9	1.26	1.36
March.....	160	32	73.1	1.08	1.24
April.....	515	36	93.1	1.37	1.53
May.....	76	22	33.1	.487	.56
June.....	70	16	24.6	.362	.40
July.....	117	14	25.2	.371	.43
August.....	2,970	9	189	2.78	3.20
September.....	702	21	99.5	1.46	1.63
The year.....	2,970	9	73.5	1.08	14.73

* Estimated or interpolated.

TAR RIVER BASIN

FISHING CREEK NEAR ENFIELD, N. C.

LOCATION.—Staff gage at highway bridge 2,000 feet below Atlantic Coast Line Railroad bridge and 2 miles southwest of Enfield, Halifax County.

DRAINAGE AREA.—462 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 9,200 second-feet Sept. 20 and 21 (gage height, 16.4 feet); minimum, 45 second-feet several times in October (gage height, 1.00 foot).

1923-1928: Maximum discharge, 12,300 second-feet Oct. 1 and 2, 1924 (gage height, 17.3 feet); minimum, 40 second-feet Sept. 2, 26, 27, and Oct. 2, 1926.

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	60	60	108	446	270	414	334	2,440	240	165	94	94
2.....	60	81	165	446	398	414	318	1,260	255	150	81	240
3.....	52	81	478	350	398	382	318	796	165	150	81	446
4.....	52	94	1,330	270	318	334	302	612	240	108	81	527
5.....	45	165	3,220	225	318	318	302	478	856	94	60	2,400
6.....	45	136	3,670	165	318	318	270	398	2,130	81	60	3,480
7.....	45	94	3,380	195	334	318	270	318	2,800	81	60	4,240
8.....	45	94	1,990	255	414	302	240	318	1,420	81	52	3,780
9.....	165	94	1,160	286	748	478	318	446	510	81	81	2,400
10.....	663	94	697	318	1,000	910	478	462	318	69	81	1,420
11.....	794	94	478	398	892	1,100	1,200	561	318	69	136	527
12.....	350	94	398	510	680	964	1,920	561	731	318	629	318
13.....	382	81	318	446	544	784	1,760	478	561	240	820	446
14.....	731	81	318	446	478	646	1,300	318	270	478	478	561
15.....	561	81	240	430	478	462	731	240	240	629	240	680
16.....	430	94	318	462	494	462	714	240	225	646	165	766
17.....	270	122	1,790	462	510	1,200	784	225	180	964	629	478
18.....	165	318	2,740	446	561	1,700	612	225	180	578	928	398
19.....	165	478	2,490	430	820	2,280	478	225	165	318	510	3,220
20.....	210	398	1,500	446	646	2,320	446	240	150	225	382	9,200
21.....	122	240	714	382	494	1,300	478	240	150	165	240	9,200
22.....	94	240	398	350	398	820	494	318	165	165	165	7,850
23.....	69	165	396	318	478	561	680	318	165	108	578	4,120
24.....	69	165	350	240	2,020	510	1,080	165	180	108	892	2,360
25.....	69	165	350	318	1,990	478	910	136	165	94	382	946
26.....	60	165	318	414	1,160	478	680	286	150	1,120	165	595
27.....	60	136	318	510	646	510	478	818	150	1,000	165	478
28.....	52	108	286	478	544	510	820	366	165	646	240	414
29.....	52	108	318	446	446	478	1,700	318	165	240	240	446
30.....	45	108	350	318	-----	414	2,400	318	165	165	165	366
31.....	45	-----	350	270	-----	398	-----	240	-----	94	122	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	784	45	194	0.420	0.48
November.....	478	60	148	.320	.36
December.....	3,670	108	997	2.16	2.49
January.....	510	165	370	.801	.92
February.....	2,020	270	648	1.40	1.51
March.....	2,320	302	728	1.58	1.82
April.....	2,400	240	760	1.64	1.88
May.....	2,440	136	446	.965	1.11
June.....	2,800	150	452	.978	1.09
July.....	1,120	69	304	.658	.76
August.....	928	52	290	.628	.72
September.....	9,200	94	2,080	4.50	5.02
The year.....	9,200	45	615	1.33	18.11

NEUSE RIVER BASIN

ENO RIVER AT HILLSBORO, N. C.

LOCATION.—Staff gage 1,000 feet below State Highway No. 10 at Hillsboro, Orange County, and 2 miles below Sevenmile Creek.

DRAINAGE AREA.—66.5 square miles.

RECORDS AVAILABLE.—November, 1927, to September, 1928.

EXTREMES.—Maximum discharge during period (estimated), 7,400 second-feet Sept. 19 (gage height, about 16.0 feet); minimum, 4.7 second-feet Aug. 5 (gage height, 0.66 foot).

REMARKS.—Records good except those above 500 second-feet and for estimated period, July 1-5, which are fair. Slight diurnal regulation due to operation of cotton mills.

Daily and monthly discharge, in second-feet, 1927-28

Day	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		18	74	170	44	39	130	28	20	7.0	96
2		182	61	80	40	37	102	26	18	6.4	285
3		751	56	48	37	37	80	51	16	5.7	562
4		869	54	46	36	35	69	353	14	5.2	182
5		249	48	48	34	34	58	517	13	4.7	735
6		221	47	55	33	33	52	182	12	12	4,050
7		249	44	60	31	31	47	91	11	11	277
8		353	41	562	30	30	74	55	11	17	64
9		291	44	170	118	29	69	37	9.8	22	57
10		158	57	102	66	124	56	34	17	25	52
11		80	48	74	182	735	49	47	37	452	47
12		68	40	57	91	277	46	38	39	102	43
13		57	37	96	69	113	44	35	69	65	38
14		51	33	80	58	74	43	32	40	51	36
15		69	31	263	54	170	40	29	18	235	35
16		709	31	140	66	113	37	27	16	1,060	33
17		320	30	67	124	80	33	25	14	235	30
18		86	29	170	563	64	44	24	13	91	609
19		58	30	74	146	55	49	22	11	55	5,120
20		57	80	57	102	61	74	20	10	43	933
21	28	54	47	49	74	65	52	18	9.4	32	263
22	26	49	38	48	61	130	38	16	8.7	29	118
23	22	48	36	108	56	113	36	14	12	27	80
24	21	44	54	74	54	208	34	16	13	25	74
25	20	44	208	61	68	86	33	17	11	37	68
26	19	43	113	55	69	67	39	16	10	34	58
27	19	43	61	51	57	1,100	33	16	9.4	29	50
28	19	41	47	48	48	2,940	37	15	8.8	26	45
29	19	44	44	45	44	208	33	28	9.4	24	43
30	19	86	113		42	158	31	22	8.3	23	52
31		158	221		40		30		7.7	24	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
November 21-30	28	19	21.2	0.319	0.12
December	869	18	179	2.69	3.10
January	221	29	61.2	.62	1.06
February	562	45	102	1.53	1.66
March	563	30	81.8	1.23	1.42
April	2,940	29	242	3.64	4.06
May	130	30	51.4	.773	.89
June	517	14	61.7	.628	1.04
July	69	7.7	16.6	.25	.29
August	1,060	4.7	90.8	1.37	1.58
September	5,120	30	470	7.07	7.86

NEUSE RIVER NEAR NORTHSIDE, N. C.

LOCATION.—Water-stage recorder at Fishdam Bridge, 1½ miles below Seaboard Air Line Railway bridge and 2 miles south of Northside, Granville County.

DRAINAGE AREA.—574 square miles.

RECORDS AVAILABLE.—July, 1927, to September, 1928.

EXTREMES.—Maximum discharge during period, 14,300 second-feet Apr. 28 (gage height, 24.4 feet); minimum, 24 second-feet Aug. 6, 1928 (gage height, 1.21 feet).

REMARKS.—Records good for low water, fair to overflow stages, and poor beyond. Flow regulated by storage of Durham Reservoir.

Daily and monthly discharge, in second-feet, 1927-28

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-----	180	116	73	42	49	596	463	484	244	2,160	164	98	35	90
2	-----	656	575	71	47	169	516	943	420	244	1,240	148	94	34	100
3	-----	276	793	70	48	1,030	420	607	260	244	716	145	95	40	894
4	-----	839	468	132	52	2,260	324	516	244	244	580	588	86	30	1,450
5	-----	548	180	306	52	2,780	340	564	228	228	580	2,070	73	35	867
6	-----	212	276	156	43	1,870	212	484	172	228	420	2,150	70	28	2,760
7	-----	100	244	124	41	1,420	204	484	228	212	484	927	76	39	4,760
8	-----	97	256	132	100	1,490	212	904	196	228	516	500	78	42	2,230
9	-----	95	620	919	116	1,600	292	2,140	281	212	564	436	73	61	1,080
10	-----	180	260	1,170	116	772	420	1,300	776	329	580	388	82	53	571
11	-----	116	124	460	100	596	356	772	644	879	404	436	81	67	452
12	-----	87	73	260	70	516	200	612	580	1,960	244	516	100	435	372
13	-----	76	124	1,430	196	500	244	548	548	1,420	212	372	363	272	292
14	-----	65	100	976	108	484	204	564	404	724	212	204	320	132	244
15	-----	49	100	508	42	564	188	776	340	596	180	196	372	71	204
16	-----	44	100	340	42	1,770	188	628	388	756	188	172	241	145	172
17	-----	44	100	308	29	3,160	180	564	644	660	196	148	262	1,630	164
18	-----	44	71	340	393	1,340	188	660	1,620	596	212	140	97	1,150	544
19	-----	44	73	356	500	763	180	724	2,260	516	228	132	65	611	4,670
20	-----	116	124	164	164	596	420	612	588	500	292	132	55	358	12,500
21	-----	94	244	124	74	548	356	564	705	484	276	140	44	304	6,140
22	-----	84	132	132	82	484	204	516	644	484	228	140	37	276	3,410
23	-----	140	116	108	74	404	196	796	580	668	180	124	41	180	1,980
24	-----	124	97	100	58	420	204	981	660	978	188	132	64	140	1,060
25	-----	228	79	132	43	388	588	708	532	848	484	140	61	124	616
26	-----	836	70	68	52	324	708	564	548	612	356	172	108	168	500
27	-----	108	776	87	49	53	420	516	564	826	404	140	47	416	491
28	-----	108	324	92	54	46	324	324	500	548	10,000	324	116	54	537
29	-----	108	212	78	44	54	388	244	484	500	6,950	260	100	61	156
30	-----	116	260	78	43	54	420	228	-----	468	3,590	212	108	41	132
31	-----	108	140	-----	33	-----	484	228	-----	276	-----	180	-----	38	116

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
1927					
July 27-31.....	116	108	110	0.192	0.04
August.....	839	44	229	.399	.46
September.....	793	70	195	.340	.38
1927-28					
October.....	1,430	33	296	.516	.59
November.....	500	29	96.4	.168	.19
December.....	3,160	49	911	1.59	1.83
January.....	708	180	311	.542	.62
February.....	2,140	463	710	1.24	1.34
March.....	2,260	172	569	.991	1.14
April.....	10,000	212	1,220	2.13	2.38
May.....	2,160	180	429	.747	.86
June.....	2,150	100	376	.655	.73
July.....	372	37	109	.190	.22
August.....	1,630	28	239	.416	.48
September.....	12,500	90	1,670	2.91	3.25
The year.....	12,500	28	574	1.00	13.63

NEUSE RIVER NEAR CLAYTON, N. C.

LOCATION.—At iron bridge 3 miles east of Clayton, Johnson County.

DRAINAGE AREA.—1,230 square miles.

RECORDS AVAILABLE.—July, 1927, to September, 1928.

EXTREMES.—Maximum discharge during period (estimated), 16,000 second-feet Sept. 20, 1928 (gage height, 17.5 feet); minimum, 98 second-feet Aug. 4, 1928.

Maximum known discharge (estimated), 26,800 second-feet July 23, 1919 (gage height, 21.15 feet).

REMARKS.—Records good except those for estimated period, Aug. 16 to Sept. 23, which are fair. There is small diurnal fluctuation.

Daily and monthly discharge, in second-feet, 1927-28

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		540	1,200	205	235	308	1,080	654	1,080	805	8,560	491	899	175	540
2		1,760	1,640	192	220	704	1,130	754	964	704	9,330	446	491	142	540
3		1,080	1,640	205	220	1,560	1,020	1,310	910	654	8,100	424	424	114	
4		1,250	2,080	405	252	5,260	857	1,250	754	630	3,780	1,180	362	123	
5		2,020	1,130	346	270	8,340	754	964	704	605	1,240	2,150	325	114	
6		1,190	630	366	235	7,180	805	910	654	605	1,010	3,590	291	132	
7		511	511	385	220	5,440	654	910	605	605	899	4,240	275	188	
8		366	511	290	252	4,950	605	1,080	605	605	792	2,670	215	175	8,900
9		557	1,080	996	270	4,020	654	2,140	630	581	1,180	1,180	188	725	
10		704	1,430	1,950	290	3,020	805	3,180	857	1,020	1,120	845	291	687	
11		704	964	1,950	346	1,760	964	3,180	1,250	2,070	1,010	1,010	424	845	
12		489	630	1,250	327	1,310	910	1,760	1,310	4,210	845	1,740	402	792	
13		366	446	1,660	237	1,130	805	1,250	1,250	4,020	636	1,120	424	586	
14		270	246	2,800	290	1,080	704	1,080	1,190	3,420	538	953	739	739	
15		205	346	2,500	366	1,080	654	1,080	1,020	1,870	468	792	1,610	491	1,500
16		252	308	1,190	346	1,710	630	1,130	910	1,690	468	687	1,870	3,580	
17		179	290	805	412	5,040	581	1,190	1,310	1,760	468	514	1,420	3,580	
18		155	290	704	605	4,570	581	1,190	3,090	1,560	468	424	1,010	3,600	
19		346	252	664	489	4,480	581	1,370	4,110	1,310	792	402	636		11,700
20	2,080	489	308	630	910	2,800	630	1,370	4,020	1,190	1,060	362	382	3,580	
21	2,580	254	308	557	605	1,430	704	1,190	3,500	1,130	899	308	291	11,800	
22	1,500	423	366	446	405	1,190	857	1,080	1,080	1,080	739	362	201	1,940	
23	857	805	385	385	346	1,080	704	3,020	1,310	1,430	636	491	164	11,700	
24	654	446	308	346	327	964	605	3,840	1,190	1,560	538	468	325	1,930	9,780
25	581	1,370	270	346	290	910	654	2,580	1,080	1,880	636	402	402	8,120	
26	425	6,540	235	327	290	857	964	1,760	1,080	1,690	1,060	382	899	3,160	
27	366	4,190	252	346	270	754	1,310	1,310	1,080	1,420	1,010	382	953	2,360	
28	308	1,820	205	270	235	704	964	1,190	1,080	4,680	845	687	562	1,010	
29	252	1,080	205	270	308	754	805	1,080	7,490	792	514	275	275	1,010	
30	235	704	235	220	290	805	704	-----	1,020	7,280	792	1,060	201	550	1,120
31	235	605	-----	205	-----	857	1,190	-----	964	-----	687	-----	201	540	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
1927					
July 20-31.....	2,580	235	839	0.682	0.31
August.....	6,540	155	1,020	.829	.96
September.....	2,080	205	625	.508	.57
1927-28					
October.....	2,800	192	749	.609	.70
November.....	910	220	342	.278	.31
December.....	8,340	308	2,450	1.99	2.29
January.....	1,310	581	802	.652	.75
February.....	3,840	654	1,540	1.25	1.35
March.....	4,110	605	1,370	1.11	1.28
April.....	7,490	581	1,980	1.61	1.80
May.....	9,330	468	1,660	1.35	1.56
June.....	4,240	308	1,010	.821	.92
July.....	1,870	164	553	.460	.52
August.....		114	1,480	1.20	1.38
September.....			6,100	4.96	5.53
The year.....		114	1,670	1.36	13.39

SURFACE WATER SUPPLY, 1928, PART II

FLAT RIVER AT BAHAMA, N. C.

LOCATION.—Water-stage recorder at head of Durham water-supply pond, 1½ miles above Dial Creek and highway bridge at Bahama, Durham County.

DRAINAGE AREA.—150 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 5,860 second-feet Sept. 19 (gauge height, 8.04 feet); minimum, 5.5 second-feet July 29 (gauge height, 1.12 feet).

1925-1928: Maximum discharge, that of Sept. 19, 1928; minimum, 0.5 second-foot Sept. 27 and 30 and Oct. 1, 1925 (gauge height, 0.50 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.6	14	25	188	183	70	65	289	50	33	7.4	18
2	9.9	15	623	92	381	68	64	283	44	37	7.4	17
3	15	18	1,780	63	176	64	62	170	50	22	7.7	224
4	292	17	1,480	54	132	61	60	145	228	19	7.4	140
5	51	20	685	52	114	62	60	125	1,020	17	9.8	238
6	29	18	748	52	125	59	58	107	215	17	10	2,900
7	20	16	545	54	116	56	56	97	110	15	6.0	357
8	23	16	969	59	1,140	56	57	97	77	14	6.2	154
9	440	19	308	71	646	271	54	136	62	12	7.7	94
10	165	18	191	58	262	320	190	154	54	11	9.8	68
11	63	18	158	93	193	170	1,110	102	53	12	70	54
12	51	19	140	75	163	278	1,020	83	56	17	225	51
13	225	16	125	65	132	178	278	68	50	45	48	53
14	77	18	112	62	152	136	188	65	44	34	30	44
15	46	23	358	56	311	107	163	60	44	37	19	35
16	35	20	1,540	54	191	303	170	59	39	33	897	29
17	32	78	586	51	163	300	140	54	83	44	625	82
18	53	656	265	50	275	1,920	112	50	31	38	338	240
19	42	121	199	55	218	416	97	73	30	26	79	4,550
20	35	70	154	59	149	254	196	90	30	17	51	1,710
21	26	54	130	54	125	196	154	72	26	16	88	276
22	20	47	114	46	107	163	256	56	24	16	36	178
23	18	42	97	42	158	142	455	603	25	16	20	182
24	18	42	92	50	168	135	551	300	28	20	32	94
25	22	37	78	357	123	128	239	110	26	29	21	84
26	22	36	71	163	98	121	166	87	31	14	20	71
27	20	24	66	101	90	114	2,100	74	30	8.3	20	62
28	18	24	63	84	84	107	4,580	107	24	6.2	21	56
29	18	28	67	64	80	101	493	89	24	6.4	15	55
30	15	23	74	60	-----	95	289	69	45	7.4	14	110
31	12	-----	94	63	-----	89	-----	55	-----	7.4	12	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	440	9.6	62.0	0.413	0.48
November	656	14	52.2	.348	.39
December	1,780	25	384	2.56	2.95
January	357	42	78.9	.526	.61
February	1,140	80	216	1.44	1.55
March	1,920	56	211	1.41	1.63
April	4,580	54	449	2.99	3.34
May	603	50	125	.833	.96
June	1,020	24	86.3	.579	.65
July	45	6.2	20.5	.137	.16
August	897	6	87.1	.581	.67
September	4,550	17	381	2.54	2.83
The year	4,580	6	179	1.19	16.22

FLAT RIVER AT DAM NEAR BAHAMA, N. C.

LOCATION.—Just below new Durham municipal dam at old Tilley mill site, 4 miles above confluence with Eno River and 3 miles southeast of Bahama, Durham County.

DRAINAGE AREA.—171 square miles.

RECORDS AVAILABLE.—August, 1927, to September, 1928.

EXTREMES.—Maximum discharge during period, 7,180 second-feet Apr. 28 (gage height, 14.6 feet); minimum, 0.6 second-foot Aug. 7, 1928 (gage height, 0.90 foot).

REMARKS.—Records excellent except those for estimated periods, which are good. Flow regulated by storage reservoir. Diversion above station for Durham water supply.

Daily and monthly discharge, in second-feet, 1927-28

Day	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		76	92	3	1.2	236	78	288	93	341	77	43	1.0	4.8
2		* 190	86	2	2.2	263	71	159	100	297	73	43	12	4.8
3		182	112	1	6.2	263	89	94	96	302	60	42	.8	5.3
4		114	89	1	906	255	187	88	94	263	63	42	.8	5.3
5		64	98	1	719	197	192	73	96	299	328	42	.8	99
6		148	87	1	805	70	197	86	94	228	376	41	.7	1,250
7		199	70	66	575	76	184	76	94	291	277	42	1.0	670
8		165	94	74	770	73	215	68	91	283	239	42	.9	890
9		92	70	98	481	86	302	53	91	288	257	42	1.0	214
10		84	102	88	277	86	305	61	91	305	253	42	.9	255
11		46	106	90	263	86	319	59	108	131	249	42	38	230
12		69	98	99	277	77	* 280	77	144	82	244	43	50	113
13		74	106	122	249	70	* 290	100	252	67	115	43	46	82
14		88	224	26	244	66	* 300	91	223	80	80	42	16	77
15		73	217	2	263	78	* 300	100	180	72	73	42	.9	81
16		84	182	2	517	76	* 300	154	194	82	71	42	18	74
17		74	208	* 1	875	72	* 290	294	217	82	66	22	186	77
18		70	208	* 1	406	88	271	479	277	70	75	1.8	214	128
19		82	145	10	277	90	271	607	277	84	86	1.0	244	8,190
20	86	86	76	1.3	255	82	299	400	263	67	79	1.0	259	2,540
21	75	87	83	.9	233	73	294	325	280	77	83	1.0	187	501
22	86	82	88	.9	197	55	277	316	176	78	74	1.0	180	323
23	73	88	* 94	.8	223	64	305	271	252	76	82	1.0	79	205
24	87	80	* 90	.8	210	78	283	339	277	220	70	1.0	75	273
25	73	71	28	.8	171	80	268	325	297	192	91	1.0	71	276
26	160	92	2	.8	155	75	283	319	288	215	84	1.0	63	237
27	190	* 86	3	.8	193	73	280	319	1,420	202	73	18	73	324
28	122	* 90	2	.9	218	68	288	319	4,890	233	46	42	71	362
29	* 131	* 83	3	1.0	244	65	299	319	703	156	43	24	72	342
30	* 140	* 90	3	1.2	237	76		220	436	78	43	1.2	71	98
31	* 122		2		244	66		96		82		1.2	56	

Month	Maxi- mum	Mini- mum	Mean	Month	Maxi- mum	Mini- mum	Mean
1927				February	319	71	253
August 20-31	190	73	112	March	607	53	212
September	199	46	96.8	April	4,890	91	408
1927-28				May	341	67	172
October	224	3	92.9	June	376	43	126
November	122	.8	23.3	July	43	1.0	25.6
December	906	1.3	339	August	259	.7	67.4
January	263	55	102	September	3,180	4.8	410
				The year	4,890	.7	185

* Estimated.

DIAL CREEK AT BAHAMA, N. C.

LOCATION.—Water-stage recorder three-eighths mile above confluence with Flat River and Lake Michie and 1½ miles northeast of Bahama, Durham County.

DRAINAGE AREA.—4.9 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 575 second-foot Apr. 27 (gage height, 5.60 feet); minimum, 0.04 second-foot Oct. 2 (gage height, 0.18 foot).

1925-1928: Maximum discharge, that of Apr. 27, 1928; no flow Sept. 16-30 and Oct. 6-12, 1926.

REMARKS.—Records good except those for estimated periods, June 20-30, July 8-13, 18-20, which are fair.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	0.04	0.46	0.77	3.12	7.7	2.46	2.05	7.7	1.41	1.04	0.20	2.05
2.....	.04	.46	12.4	1.94	5.5	2.22	2.05	5.3	1.36	.87	.16	4.10
3.....	3.42	.50	13.0	1.94	3.71	2.05	2.00	4.29	10.3	.80	.13	12.6
4.....	1.44	.77	15.5	1.94	3.19	2.05	1.94	3.79	74	.71	.11	2.84
5.....	.52	.60	17.0	1.94	3.05	2.00	1.94	3.26	20	.63	3.40	17.1
6.....	.35	.46	10.5	1.94	3.56	1.94	1.94	2.84	9.5	.52	2.24	33
7.....	.28	.50	10.6	1.89	3.12	1.94	1.94	2.78	4.91	.48	.48	36
8.....	9.6	.50	11.0	1.84	23	1.94	1.94	3.33	3.87		.46	4.12
9.....	7.1	.50	4.82	2.65	10.8	7.3	1.74	3.64	2.52		.46	3.05
10.....	2.22	.50	3.56	2.52	6.3	3.95	10.8	2.98	2.34	.45	2.05	2.40
11.....	1.24	.50	3.12	2.11	4.55	4.37	22.4	2.40	3.95		5.8	1.94
12.....	6.6	.50	2.84	1.84	3.64	4.37	11.2	2.22	3.26	1.30	2.34	2.58
13.....	2.16	.50	2.71	1.79	3.12	3.48	6.1	1.94	2.58	1.00	.90	2.54
14.....	1.28	.50	2.46	1.69	5.6	3.12	4.55	1.94	3.56	2.22	.71	1.74
15.....	.97	.50	12.5	1.69	5.0	2.58	5.3	1.84	2.65	1.04	.66	1.24
16.....	.97	.50	25	1.64	4.04	4.12	5.7	1.79	2.11	10.2	19.4	1.20
17.....	1.04	6.0	9.2	1.59	3.64	4.04	3.95	1.69	1.45	2.71	9.4	1.04
18.....	1.12	3.19	5.4	1.59	6.9	30.0	3.33	1.64	1.32	1.2	4.04	34
19.....	.97	1.45	3.95	1.89	3.87	8.8	3.05	2.05	1.28	.8	1.84	145
20.....	.77	1.24	3.12	2.58	3.41	5.6	3.05	2.22	1.2	.7	1.32	20
21.....	.66	1.04	2.84	1.69	3.05	4.37	2.91	1.69	1.2	.55	1.01	6.6
22.....	.55	.97	2.46	1.41	2.78	3.71	5.1	1.45	2.1	.60	1.28	5.3
23.....	.55	.94	2.34	1.45	5.8	3.26	7.8	38	2.5	.68	.80	4.55
24.....	.52	.90	2.11	4.21	3.95	2.98	7.3	5.6	4.3	.58	.71	3.79
25.....	.50	.87	2.05	8.6	3.19	3.19	4.46	3.19	2.8	.39	.55	2.91
26.....	.50	.77	1.94	3.87	2.84	3.56	3.41	3.19	1.7	.37	.77	2.46
27.....	.48	.77	1.94	3.12	2.71	3.19	197	2.46	1.4	.35	.74	2.22
28.....	.48	.77	2.00	2.78	2.58	2.52	69	2.84	1.4	.33	.52	2.05
29.....	.46	.77	2.00	2.16	2.52	2.52	12.2	2.11	5.9	.58	.43	1.84
30.....	.46	.77	2.05	2.11	-----	2.52	7.6	1.89	1.7	.30	.39	4.29
31.....	.46	-----	3.87	2.22	-----	2.05	-----	1.59	-----	.25	.39	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	9.6	0.04	1.54	0.314	0.36
November.....	6.0	.46	.96	.196	.22
December.....	25	.77	6.29	1.28	1.48
January.....	8.6	1.41	2.38	.486	.56
February.....	23	2.2	4.93	1.01	1.09
March.....	30	1.94	4.26	.869	1.00
April.....	197	1.74	13.8	2.82	3.15
May.....	38	1.45	3.99	.814	.94
June.....	74	1.2	5.95	1.21	1.35
July.....	10.2	.25	1.06	.216	.25
August.....	19.4	.11	2.05	.418	.48
September.....	145	1.04	12.1	2.47	2.76
The year.....	197	.04	4.91	1.00	13.64

ROCKY CREEK NEAR BAHAMA, N. C.

LOCATION.—Staff gage $1\frac{1}{4}$ miles above confluence with Flat River, 2 miles above dam of Durham water supply and 3 miles east of Bahama, Durham County.

DRAINAGE AREA.—2.7 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 186 second-feet Apr. 27 (gage height, 4.40 feet); minimum discharge, 0.05 second-foot several times during year; minimum gage height, 0.16 foot Aug. 4 and 5.

1925-1928: Maximum discharge, that of Apr. 27, 1928; no flow several times in August, September, and October, 1926 (gage height, 0.06 foot).

REMARKS.—Records fair owing to theoretical determination of discharge.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.05	0.15	0.10	1.80	7.1	0.75	0.55	5.6	0.25	0.15	0.05	4.10
2	0.05	.15	7.4	1.30	3.90	.70	.55	2.15	.25	.15	.05	10.2
3	2.50	.15	5.8	1.00	1.70	.65	.50	1.60	.45	.10	.05	15.5
4	.45	.15	8.4	.75	1.05	.60	.50	1.20	23	.10	.05	6.9
5	.20	.15	9.1	.60	1.30	.50	.50	1.00	8.7	.10	.05	23
6	.10	.15	8.6	.50	4.10	.50	.50	.85	2.85	.10	.10	25
7	.05	.15	5.3	.45	2.15	.45	.45	.85	1.20	.10	.05	2.90
8	1.90	.15	4.55	.45	31	.40	.45	.95	.60	.05	.05	1.15
9	10.2	.15	1.90	2.00	7.2	12.7	.45	.95	.35	.05	.05	.85
10	1.40	.15	1.60	1.55	3.35	9.1	11.2	.85	.25	.10	3.95	.70
11	.80	.15	1.15	1.20	2.30	11.4	29	.70	1.10	.05	.90	.60
12	5.0	.15	.90	.90	1.55	4.05	5.3	.50	.75	2.30	.40	.50
13	.68	.15	.80	.70	1.20	1.50	2.05	.50	.55	.35	.20	.50
14	1.00	.15	.75	.60	1.95	1.20	1.40	.45	.40	.45	.15	.45
15	.60	.15	5.8	.50	2.45	1.05	3.55	.45	.30	.25	.15	.40
16	.50	.20	22	.50	1.75	2.00	3.05	.35	.25	5.2	30	.40
17	.50	.35	4.30	.45	1.30	8.4	1.55	.40	.25	.65	4.20	.40
18	.60	.30	2.00	.45	6.3	13.0	1.30	.35	.25	.25	1.90	11.2
19	.60	.20	1.35	.55	1.85	4.80	1.25	.65	.25	.20	1.00	65
20	.50	.15	1.10	2.05	1.20	1.90	1.20	.70	.20	.20	.50	7.0
21	.35	.15	1.00	.95	1.00	1.55	1.20	.45	.20	.15	.45	2.70
22	.25	.15	.90	.60	.95	1.20	2.35	.35	.15	.25	.40	1.75
23	.20	.15	.80	.50	13.0	1.00	4.20	1.75	.20	.35	.35	1.30
24	.20	.15	.75	.60	8.4	.95	2.80	1.05	.20	.25	.35	1.25
25	.20	.10	.65	5.1	3.50	1.55	1.40	.75	.25	.10	.30	1.10
26	.20	.10	.60	1.95	1.95	1.75	.95	.70	.20	.10	.75	.90
27	.20	.10	.60	1.05	1.05	1.30	33	.70	.15	.05	.65	.75
28	.20	.10	.50	1.05	.95	1.05	11.5	.45	.10	.05	.35	.70
29	.20	.10	.45	.85	.80	.85	4.10	.35	.30	.05	.25	.65
30	.20	.10	.45	.75	-----	.75	2.45	.35	.20	.05	.20	.65
31	.20	-----	2.90	1.00	-----	.65	-----	.25	-----	.05	.20	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	10.2	0.05	1.17	0.433	0.50
November	35	.10	.155	.057	.06
December	22	.10	3.31	1.23	1.42
January	5.1	.45	1.05	.389	.45
February	31	.80	4.01	1.49	1.61
March	13.0	.40	2.85	1.06	1.22
April	33	.45	4.29	1.59	1.77
May	5.6	.25	.910	.337	.36
June	23	.10	1.47	.544	.61
July	5.2	.05	.398	.147	.17
August	30	.05	1.55	.574	.65
September	65	.40	6.28	2.33	2.60
The year	65	.05	2.27	.841	11.46

CAPE FEAR RIVER BASIN

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. Chain gage used prior to Oct. 8, 1927.

DRAINAGE AREA.—3,530 square miles.

RECORDS AVAILABLE.—December, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 84,000 second-feet Sept. 20 (gage height, 24.8 feet); minimum, 112 second-feet Oct. 3 (gage height, 0.70 foot).
1923-1928: Maximum discharge, that of Sept. 20, 1928; minimum, 8 second-feet Oct. 8, 1926 (gage height, 0.01 foot.)

REMARKS.—Records good. Discharge estimated Aug. 11, Sept 16, 17, 19-22, 28. Large diurnal fluctuation caused by operation of Buckhorn power plant, 14 miles upstream.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1.....	375	570	948	1,780	1,060	1,690	1,070	15,200	2,540	2,310	489	2,340
2.....	244	621	2,050	2,890	2,440	1,350	1,450	6,840	1,860	2,040	395	9,820
3.....	114	634	9,990	2,880	2,400	1,280	812	4,330	1,170	1,060	220	20,500
4.....	9,600	590	33,500	1,110	2,580	868	812	3,380	3,710	854	850	38,800
5.....	18,100	705	37,300	910	1,950	1,020	780	2,680	12,100	490	321	41,800
6.....	6,060	441	30,800	820	1,690	970	685	2,400	13,700	802	694	53,400
7.....	2,400	460	20,900	754	1,540	715	832	2,080	7,700	612	782	63,000
8.....	2,280	525	10,000	744	1,820	838	710	2,180	4,400	460	471	41,200
9.....	7,960	622	5,100	938	11,300	995	665	10,900	3,070	414	866	28,200
10.....	19,100	571	3,170	1,320	7,810	1,750	1,790	11,200	2,210	543	1,200	10,500
11.....	10,800	479	1,880	1,760	4,460	2,610	9,300	5,190	2,250	731	1,010	4,360
12.....	4,270	698	1,280	1,760	3,240	3,100	24,000	3,170	4,260	3,030	1,280	4,380
13.....	5,820	512	1,010	1,470	2,340	3,170	15,800	2,080	3,730	4,520	1,280	4,490
14.....	6,840	560	865	1,060	1,820	2,280	6,990	2,410	2,650	6,410	2,470	4,180
15.....	4,260	506	910	879	2,020	1,760	4,490	1,690	3,100	10,900	2,680	2,540
16.....	3,170	756	12,600	741	2,960	1,690	5,040	1,630	2,320	5,000	12,000	2,500
17.....	2,280	729	20,600	1,010	2,540	3,400	5,160	1,200	1,520	3,570	36,400	2,470
18.....	1,450	5,000	11,100	775	2,870	10,600	3,880	1,550	1,360	3,900	19,900	13,000
19.....	1,390	5,430	5,270	834	4,400	15,100	3,310	1,940	1,030	2,450	7,670	61,800
20.....	1,620	3,450	4,330	1,010	3,350	7,020	2,820	8,870	780	1,530	4,660	53,800
21.....	1,460	2,470	2,960	880	2,280	4,530	2,820	8,460	670	1,240	4,490	77,100
22.....	1,180	1,530	2,140	828	1,880	3,480	2,750	4,820	830	802	10,600	58,800
23.....	853	1,170	1,880	776	11,200	2,410	4,900	3,380	845	770	26,000	32,700
24.....	811	1,130	1,760	772	13,600	1,730	9,100	3,170	734	870	11,500	9,440
25.....	755	1,080	1,360	1,090	6,000	1,460	7,230	3,310	672	984	7,880	4,380
26.....	710	1,150	1,200	3,640	4,150	1,690	4,580	3,760	672	731	7,250	3,590
27.....	635	939	958	2,890	2,920	1,570	4,820	5,390	790	562	6,060	2,820
28.....	580	890	1,030	1,950	2,210	1,570	40,600	3,660	798	614	3,380	2,610
29.....	840	858	896	1,530	1,820	1,630	45,600	3,400	1,020	558	2,470	2,400
30.....	358	804	1,090	1,080	-----	1,340	31,200	3,450	2,070	385	1,950	2,890
31.....	662	-----	1,220	1,040	-----	1,180	-----	3,810	-----	330	1,760	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	19,100	114	3,770	1.07	1.23
November.....	5,430	441	1,200	.340	.88
December.....	37,300	865	7,420	2.10	2.42
January.....	3,640	741	1,320	.374	.48
February.....	13,600	1,060	3,820	1.08	1.16
March.....	15,100	715	2,740	.776	.89
April.....	45,500	665	8,130	2.80	2.87
May.....	15,200	1,200	4,420	1.25	1.44
June.....	13,700	670	2,820	.799	.86
July.....	10,900	830	1,920	.544	.68
August.....	36,400	220	5,760	1.68	1.88
September.....	33,300	2,340	23,000	6.62	7.37
The year.....	83,300	114	5,500	1.56	21.19

REEDY FORK NEAR SUMMERFIELD, N. C.

LOCATION.—Water-stage recorder 50 feet below highway bridge, half a mile above mouth of Brush Creek, 1 mile upstream from head of Greensboro waterworks pond, and 2 miles southeast of Summerfield, Guilford County.

DRAINAGE AREA.—34.1 square miles.

RECORDS AVAILABLE.—November, 1925, to April, 1928 (discontinued).

EXTREMES.—Maximum discharge during period, 180 second-feet Feb. 9 (gage height, 1.97 feet); minimum, 14 second-feet Nov. 7 (gage height, 0.59 foot).

1925-1928: Maximum discharge, 690 second-feet Jan. 19, 1926 (gage height, 3.16 feet); minimum, 4.4 second-feet Aug. 30, 1926 (gage height, 0.20 foot).

REMARKS.—Records poor. Discharge partly estimated Dec. 17, Jan. 3-6, 15-20 and Feb. 26. Diurnal fluctuation caused by operation of mill at Summerfield.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1.....		15	17	33	25	18	18
2.....		16	32	32	56	18	18
3.....		16	136	31	39	18	18
4.....		17		30	27	17	18
5.....		17		28	24	17	18
6.....		14		26	24	17	17
7.....		16		24	23	17	17
8.....		16		21	74	17	
9.....		20		25	167	27	
10.....		18		29	71	32	
11.....		17		25	34	21	
12.....		16		24	26	21	
13.....		16		24	25	20	
14.....		17		23	27	20	28
15.....	22	17		23	47	19	22
16.....	21	17		23	29	50	21
17.....	21	19	100	22	25	64	20
18.....	23	28	43	22	34	132	19
19.....	22	21	31	22	27	104	19
20.....	22	17	27	22	24	44	19
21.....	22	17	26	22	23	29	19
22.....	22	17	25	20	23	25	
23.....	17	17	24	21	28	22	
24.....	18	16	22	21	25	21	
25.....	19	16	20	44	22	20	
26.....	19	18	21	34	19	21	
27.....	18	15	21	26	19	20	
28.....	17	16	20	24	18	19	
29.....	17	16	23	28	18	19	
30.....	15	16	26	29		21	
31.....	16		28	22		20	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October 15-31.....	23	15	19.5	0.572	0.36
November.....	28	14	17.1	.501	.56
January.....	44	20	25.8	.757	.87
February.....	167	18	35.3	1.04	1.12
March.....	132	17	30.0	.880	1.01

HORSEPEN CREEK AT BATTLE GROUND, N. C.

LOCATION.—Water-stage recorder 1,000 feet above highway bridge 1 mile north-west of Battle Ground, Guilford County, and 2½ miles above confluence with Reedy Fork.

DRAINAGE AREA.—15.9 square miles.

RECORDS AVAILABLE.—November, 1925, to September, 1928.

EXTREMES.—Maximum recorded discharge during year, 269 second-feet Apr. 12 (gage height, 5.63 feet); minimum, 3.4 second-feet July 21 (gage height, 1.04 feet).

1925-1928: Maximum discharge (estimated), 680 second-feet (revised) Jan. 18, 1926 (gage height, 7.15 feet); minimum, 0.7 second-foot July 24, 1926 (gage height, 0.72 foot).

REMARKS.—Records good for discharges between 3 and 50 second-feet; fair between 50 and 250 second-feet and for estimated period, July 1-7.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.
1.		8.6	7.3	18	39	9.7	11				
2.		8.9	96	12	25	9.2	11				
3.		9.2	179	10	17	8.9	10		51		
4.		9.2		10	15	8.9	9.7	13	76	4.3	
5.		8.9		10	13	8.9	9.7	11	33		
6.		8.9		9.2	12	8.6	9.2	10	17		
7.		8.9		9.2	13	8.6	8.9	10	13		
8.		9.2		8.9	98	8.6	8.9	12	10	4.0	21
9.		10		17	30	38	8.6	12	8.9	4.1	18
10.		9.7	14	15	19	18	33	10	7.9	37	16
11.		9.7	14	12	16	16	112	9.2	7.9	12	15
12.		9.7	14	12	14	16	113	8.6	7.3	7.9	15
13.		8.9	12	11	13	13	28	7.9	6.6	8.9	15
14.		8.9	11	10	27	12	18	7.6	6.3	9.7	13
15.	12	8.9	15		20	10	17	7.6	5.8	6.0	13
16.	11	8.9	59		16	77	16	7.3	5.8	5.2	
17.	11	40	26		16	32	13	7.0	5.6	4.7	
18.	11	16	18		30	115	12	7.0	5.4	4.3	
19.	10	9.2	15		16	28	41	15	5.4	4.0	
20.	9.2	9.2	12		14	19	12	17	5.2	3.8	
21.	8.9	8.6	12	8.9	12	16	12	9.2	5.2	3.7	
22.	8.2	7.9	11	9.2	12	14	12	7.3	6.0	4.7	
23.	7.9	7.3	11	9.2	23	14		15	5.8	4.9	
24.	7.9	7.3	9.2	11	16	14		11	5.6	4.9	
25.	7.6	7.0	8.9	23	14	15		7.9	5.4	4.7	
26.	7.6	6.6	10	14	13	16		9.7	5.0	4.7	
27.	7.6	6.3	9.2	11	12	13			4.7	4.5	
28.	7.9	6.3	8.6	11	11	11			4.7	4.3	
29.	8.2	6.3	11	9.2	11	11			16		
30.	8.6	6.3	11	8.9		16			7.3		
31.	8.9		27	9.7		12					

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October 15-31.	12	7.6	9.03	0.568	0.36
November	40	6.3	9.69	.609	.68
February	93	11	20.1	1.26	1.36
March	115	8.6	19.9	1.25	1.44
April 1-22	113	8.6	22.5	1.42	1.16
May 3-26	17	7.0	10.3	.648	.58
June 3-30	76	4.7	12.3	.774	.81
July 1-28	37	3.7	6.36	.400	.42

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 and September, 1928.

EXTREMES.—Maximum discharge during period, 1,480 second-feet Sept. 19 (gage height, 8.55 feet); minimum, 2.0 second-feet Aug. 31 (gage height, 1.35 feet).

REMARKS.—Records fair to 700 second-feet; poor beyond. Sewage from Greensboro enters just above the station.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		6.9	11.....		7.9	21.....		152
2.....		56	12.....		8.6	22.....		37
3.....		410	13.....		8.5	23.....		26
4.....		308	14.....		6.2	24.....		22
5.....		96	15.....		5.4	25.....		19
6.....		470	16.....		4.8	26.....		16
7.....		205	17.....		4.4	27.....		16
8.....		48	18.....		45	28.....		15
9.....		18	19.....		1,000	29.....		15
10.....		11	20.....		788	30.....		108
						31.....	2.7	
Month						Maximum	Minimum	Mean
September.....						1,000	4.4	131

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 to September, 1928.

EXTREMES.—Maximum discharge during period, 1,600 second-feet Sept. 19 (gage height, 10.85 feet); minimum, 12 second-feet Aug. 31 (gage height, 1.28 feet).

REMARKS.—Records good below and fair above 1,200 second-feet. Sewage from Greensboro and the Proximity Mills enters above station.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		31	11.....		25	21.....		102
2.....		231	12.....		26	22.....		54
3.....		570	13.....		24	23.....		36
4.....		90	14.....		19	24.....		29
5.....		242	15.....		18	25.....		26
6.....		481	16.....		15	26.....		23
7.....		79	17.....		15	27.....		21
8.....		44	18.....		121	28.....	21	20
9.....		32	19.....		1,380	29.....	19	18
10.....		26	20.....		402	30.....	16	180
						31.....	14	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
September.....	1,380	15	146	4.01	4.47

MORGAN CREEK NEAR CHAPEL HILL, N. C.

LOCATION.—Water-stage recorder just below mouth of Neville Creek, $2\frac{1}{2}$ miles southwest of Chapel Hill, Orange County, and 7 miles above mouth of creek.

DRAINAGE AREA.—29 square miles.

RECORDS AVAILABLE.—January, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,240 second-feet Apr. 27 (gage height, 12.65 feet); minimum, 2.7 second-feet Oct. 1 and 2 (gage height, 1.83 feet).

1923-1928: Maximum discharge, about 30,000 second-feet Aug. 4, 1924 (gage height, about 25.0 feet); minimum, 0.47 second-foot Sept. 11, 1925 (gage height, 0.54 foot).

REMARKS.—Records good except those for estimated periods, Jan. 7-31, Feb. 1-24, 26-28, Sept. 1-15, 17-28, 30, which are fair. Water is diverted a short distance upstream for water supply of Chapel Hill; records include this diversion.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	6.1	8.2	35	50	22	17.8	50	12.4	8.0	5.1	100
2	2.7	6.0	88	24	30	21	17.8	39	12.4	7.1	4.6	65
3	27	6.3	85	21	21	21	17.4	34	23	6.6	4.0	500
4	12.4	7.7	240	18.2	19.4	17.8	31	73	5.9	4.1	50	
5	5.5	6.8	164	17.0	22	18.6	17.0	28	54	5.9	4.1	550
6	4.6	6.2	109	16.6		17.8	15.8	26	30	5.6	3.8	750
7	4.0	5.8	74	16.0		16.6	15.8	26	23	5.3	15.3	90
8	48	5.9	60	16.0	220	15.8	16.6	55	19.0	5.0	7.0	45
9	126	6.8	36	20	90	38	15.0	50	17.0	4.9	10.0	35
10	26	6.6	28	25	35	29	44	30	14.3	6.3	9.2	30
11	14.0	6.3	26	21		30	164	23	55	7.8	116	29
12	70	6.1	24	18.0		32	93	21	21	13.0	23	90
13	114	6.0	22	16.0		27	43	19.8	17.4	19.0	10.4	35
14	25	5.5	20	15.0		24	34	18.2	15.0	75	8.7	28
15	17.0	5.7	68		25	22	37	16.6	20.0	21	11.8	23
16	13.4	5.8	240			30	48	15.8	12.7	52	720	20
17	11.7	13.7	93			36	34	15.8	11.7	32	811	21
18	19.4	19.0	45	15.0	50	223	29	14.3	10.8	18.0	48	400
19	11.6	9.4	36		30	62	28	72	10.2	10.4	61	800
20	10.3	8.1	29			41	28	79	9.7	13.4	28	110
21	9.0	7.8	26		25	35	26	32	9.1	9.2	21	60
22	8.0	7.6	24	16.0		32	30	26	9.8	8.2	85	50
23	7.7	7.2	22	15.0	180	30	43	28	9.2	7.1	28	40
24	7.2	7.1	20.0	22	80	28	43	21	10.0	8.4	21	38
25	6.9	7.0	19.0	35	33	28	32	18.2	9.8	7.0	100	31
26	6.6	6.9	18.6	30		31	26	28	8.6	6.6	50	30
27	6.5	6.6	18.6	22	28	31	953	21	8.0	6.2	32	29
28	6.5	6.6	19.0	19.0		24	373	20	8.2	5.7	22	28
29	6.4	6.8	22	18.0	23	22	99	17.0	11.0	5.6	17.4	27
30	6.4	6.8	22	40		21	62	17.0	10.4	5.3	14.3	103
31	6.2		28	100		20		14.7		5.3	28	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	126	2.7	20.7	0.714	0.82
November	19	5.5	7.34	.253	.26
December	240	8.2	55.9	1.93	2.22
January			22.6	.779	.90
February			43.6	1.50	1.62
March	223	15.8	33.8	1.17	1.35
April	953	15.0	80.7	2.78	3.10
May	79	14.3	29.1	1.00	1.15
June	73	8.0	18.5	.638	.71
July	75	4.9	12.6	.434	.50
August	720	3.8	58.8	2.03	2.34
September		20	140	4.83	5.39
The year		2.7	43.5	1.50	20.38

WEST FORK OF DEEP RIVER NEAR HIGH POINT, N. C.

LOCATION.—Water-stage recorder one-quarter mile above State highway crossing at head of High Point Reservoir, $1\frac{1}{2}$ miles northwest of Jamestown, and $3\frac{1}{2}$ miles northeast of High Point, Guilford County.

DRAINAGE AREA.—33 square miles.

RECORDS AVAILABLE.—June, 1923, to September, 1926; July to September, 1928.

EXTREMES.—Maximum discharge during period, 1,270 second-feet Sept. 19 (gage height, 11.45 feet); minimum, 2.5 second-feet July 31.

1923-1926, 1928: Maximum discharge that of Sept. 19, 1928; minimum, 2 second-feet July 28 to Aug. 3, 1925, and Sept. 29 and 30, 1926.

REMARKS.—Records good except those for estimated period, Aug. 20-24, which are fair. Flow slightly regulated by gristmill 4 miles upstream. Relation of datum to that of former station not established.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1-----		7.9	31	11-----		532	18.1	21-----		13.9	67
2-----		5.6	79	12-----		213	19.0	22-----		44	41
3-----		6.2	397	13-----		33	18.1	23-----		18.6	31
4-----		6.6	65	14-----		27	15.2	24-----		12.6	25
5-----		7.2	154	15-----		64	14.3	25-----		10.5	22
6-----		8.0	169	16-----		359	14.3	26-----		10.2	31
7-----		33	55	17-----		75	13.0	27-----		9.4	14.3
8-----		10.9	34	18-----		57	83	28-----		8.7	12.6
9-----		14.9	25	19-----		82	1,060	29-----		7.9	12.2
10-----		20	21	20-----		21	438	30-----		8.3	10.5
								31-----		7.6	10.5

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July 25-31-----	10.5	7.6	8.94	0.271	0.07
August-----	532	5.6	62.2	1.88	2.17
September-----	1,060	13.0	108	3.12	3.48

DEEP RIVER AT RAMSEUR, N. C.

LOCATION.—Water-stage recorder at upper end of long pool, 2,000 feet downstream from railroad station at Ramseur, Randolph County, and 1½ miles below Sandy Creek.

DRAINAGE AREA.—343 square miles.

RECORDS AVAILABLE.—November, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 21,100 second-feet Sept. 19 (gage height, 25.44 feet); minimum, 18 second-feet Aug. 8 (gage height, 0.48 foot).

1922-1928: Maximum discharge, that of Sept. 19, 1928; minimum, 10 second-feet Aug. 4, 1925, and several times in October, 1925 (gage height, 0.37 foot).

REMARKS.—Records good. Discharge estimated Jan. 4 and 5.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1-----	70	109	98	587	700	250	170	562	170	78	87	164
2-----	35	97	1,380	300	798	208	234	571	178	117	87	856
3-----	4,200	88	4,190	208	481	164	194	364	254	107	88	3,010
4-----	5,390	91	6,770	186	342	139	162	276	1,840	93	61	1,200
5-----	477	93	2,210	170	313	222	159	268	2,180	70	46	2,510
6-----	227	49	1,760	158	344	198	156	217	807	76	148	10,400
7-----	217	59	1,020	184	283	162	152	362	428	70	76	1,370
8-----	1,440	126	847	159	2,230	153	142	542	317	97	54	608
9-----	4,420	80	540	272	1,410	413	179	1,200	234	132	50	406
10-----	1,070	91	388	372	694	502	778	526	172	130	348	309
11-----	450	97	321	290	437	394	3,300	368	293	532	1,550	262
12-----	662	75	334	206	355	486	2,170	280	302	346	1,770	277
13-----	972	39	334	301	325	334	827	181	212	268	385	274
14-----	394	89	260	195	514	262	571	257	172	152	223	227
15-----	217	105	491	152	681	242	517	201	137	152	233	164
16-----	195	98	2,270	193	472	544	678	226	152	179	3,600	113
17-----	218	596	1,250	142	406	673	441	176	95	1,340	1,780	175
18-----	193	1,000	608	119	734	2,240	441	199	142	266	631	1,950
19-----	202	280	472	168	504	947	385	2,680	129	144	532	19,000
20-----	164	164	356	268	394	678	334	1,960	123	123	406	9,900
21-----	139	176	290	214	342	428	381	654	112	139	247	1,110
22-----	105	143	268	119	326	300	546	450	111	76	1,130	654
23-----	71	118	242	181	922	272	1,150	1,300	159	115	463	494
24-----	135	156	208	204	749	220	1,100	798	115	177	197	424
25-----	177	170	211	903	631	230	701	428	176	136	204	341
26-----	130	100	192	450	381	364	394	517	135	126	1,990	310
27-----	119	60	192	342	334	329	5,140	342	115	110	601	256
28-----	113	135	178	208	298	250	6,240	538	116	98	282	212
29-----	93	104	192	192	264	214	1,120	428	144	58	198	204
30-----	70	104	228	220	245	822	321	164	85	158	827	827
31-----	70	345	278	-----	-----	184	-----	260	-----	83	130	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October-----	5,390	35	724	2.11	2.43
November-----	1,000	39	156	.455	.51
December-----	6,770	98	918	2.68	3.09
January-----	903	119	256	.746	.86
February-----	2,230	264	575	1.68	1.81
March-----	2,240	139	395	1.15	1.33
April-----	6,240	142	986	2.87	3.20
May-----	2,680	176	563	1.64	1.89
June-----	2,180	95	323	.942	1.05
July-----	1,340	58	183	.534	.62
August-----	3,600	46	573	1.67	1.92
September-----	19,000	113	1,930	5.63	6.28
The year-----	19,000	35	630	1.84	24.99

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, 1 mile east of Deep River Church, and 6 miles northeast of High Point, Guilford County.

DRAINAGE AREA.—13.9 square miles.

RECORDS AVAILABLE.—July to September, 1923.

EXTREMES.—Maximum discharge during period, 806 second-feet Sept. 19 (gage height, 4.60 feet); minimum, 2.3 second-feet Aug. 2 (gage height, 0.26 foot).

REMARKS.—Records excellent except those for estimated periods, July 30 to Aug. 8, Sept. 7-21, 25-28, which are fair.

Daily and monthly discharge, in second-feet, 1923

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1			14	11		133		21		7.7	33
2			43	12		15		22		8.0	18
3		3.4	148	13		7.4		23		8.0	14
4			22	14		6.1	8.3	24		6.8	12
5			96	15		27		25		6.3	
6			79	16		133		26		6.3	9.2
7		8.4	19	17		23	7.0	27	3.0	5.6	
8				18		35	41	28	3.1	5.0	
9		3.6		19		34	510	29	2.8	4.7	8.0
10		4.0		20		11	215	30		4.5	63
								31	3.4	4.7	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July 27-31			3.14	0.226	0.04
August	133		18.2	1.31	1.51
September			49.2	3.54	3.95

* Includes Sept. 10.

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PEE DEE RIVER BASIN

YADKIN RIVER AT NORTH WILKESBORO, N. C.

LOCATION.—Chain gage at bridge 3,870 feet downstream from Southern Railway station at North Wilkesboro, Wilkes County.

DRAINAGE AREA.—500 square miles.

RECORDS AVAILABLE.—April, 1903, to June, 1909; October, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 22,000 second-feet Aug. 16 (gage height, 20.84 feet); minimum not determined.

1903-1909, 1920-1928: Maximum discharge, 22,300 second-feet Nov. 19, 1906 (gage height, 18.8 feet, old datum); minimum, 161 second-feet July 25, 1926 (gage height, 0.34 foot).

REMARKS.—Records fair. Discharge estimated Oct. 2-8 and Dec. 25-31. Very slight regulation from milldams upstream.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	237	574	492	480	520	695	790	1,140	990	1,040	890	1,190
2	230	532	492	462	840	650	695	1,090	990	890	840	1,290
3	800	492	2,000	462	790	540	650	1,040	1,090	790	840	3,160
4	520	492	2,490	445	605	500	605	890	990	695	790	2,040
5	370	492	1,390	445	500	480	582	790	890	582	790	4,800
6	330	414	840	445	410	462	560	695	790	560	990	13,300
7	300	532	560	1,590	940	520	790	740	740	560	1,040	3,840
8	330	574	560	1,540	990	1,140	1,860	890	695	560	940	2,420
9	492	532	582	890	740	740	1,040	790	650	605	1,340	2,100
10	379	492	520	1,090	1,140	540	650	740	605	790	1,490	1,860
11	379	452	445	940	1,090	560	605	695	560	740	2,590	1,640
12	574	414	410	605	790	990	1,390	650	540	1,090	1,840	1,540
13	492	396	392	462	520	695	1,040	605	890	1,140	1,140	1,590
14	414	396	392	462	790	582	1,190	605	695	890	890	1,290
15	396	618	392	740	740	560	940	740	650	790	4,820	1,290
16	492	532	695	605	520	540	840	695	650	940	19,600	2,420
17	574	492	790	582	740	790	740	605	1,390	1,550	11,900	1,700
18	492	492	605	582	740	1,190	695	560	1,540	990	3,000	1,440
19	414	492	540	1,190	650	990	650	790	1,290	740	2,040	4,800
20	414	452	605	940	560	840	650	1,140	1,140	790	1,700	4,130
21	396	618	650	695	500	790	605	1,040	990	695	1,490	2,290
22	396	618	560	560	1,090	695	790	890	890	582	1,700	2,040
23	396	532	540	520	1,290	695	695	790	790	560	1,190	1,860
24	379	492	520	890	940	650	650	1,500	695	520	990	1,750
25	396	492	500	1,090	790	605	650	2,220	650	520	890	1,690
26	574	452	510	890	695	582	582	1,750	605	500	840	1,490
27	532	414	640	695	650	540	1,440	1,540	695	740	1,800	1,290
28	492	396	650	582	605	540	1,800	1,340	695	940	1,290	1,190
29	452	532	760	695	582	500	1,440	1,190	1,390	840	1,060	1,140
30	452	532	780	695	500	1,140	1,290	1,090	1,590	840	990	1,690
31	574	-----	900	582	-----	1,040	-----	1,040	-----	990	1,390	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	574	-----	441	0.882	1.02
November	618	396	498	0.996	1.11
December	2,490	392	716	1.43	1.65
January	1,590	445	737	1.47	1.70
February	1,290	410	750	1.50	1.62
March	1,190	462	703	1.41	1.63
April	1,860	560	917	1.83	2.04
May	2,220	560	986	1.97	2.27
June	1,590	540	892	1.78	1.99
July	1,590	500	787	1.57	1.81
August	19,600	790	2,350	4.70	5.42
September	13,300	1,140	2,460	4.92	5.49
The year	19,600	-----	1,020	2.04	27.75

YADKIN RIVER AT YADKIN COLLEGE, N. C.

LOCATION.—At State highway bridge crossing 1 mile southwest of Yadkin College, Davidson County.

DRAINAGE AREA.—2,250 square miles.

RECORDS AVAILABLE.—July to September, 1928.

EXTREMES.—Maximum discharge during period, 50,200 second-feet Aug. 18 (gage height, 25.5 feet); minimum, 1,250 second-feet Aug. 3 (gage height, 1.01 feet).

REMARKS.—Records good except those for estimated periods, Aug. 21 to Sept. 11, Sept. 13-18, and 22-30, which are poor. Slight regulation caused by operation of small power plant about 10 miles upstream.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1.....		1,630	3,500	11.....	4,940	10,900	4,400	21.....	2,030	5,400	13,200
2.....		1,690	6,000	12.....	4,270	21,800	4,050	22.....	2,180	4,500	7,100
3.....		1,530	12,000	13.....	2,930	9,160	3,700	23.....	2,830	4,000	5,200
4.....		1,380	6,000	14.....	3,530	3,730	3,600	24.....	2,180	5,500	4,200
5.....		2,080	13,000	15.....	3,430	3,030	3,500	25.....	1,730	4,000	3,800
6.....		2,380	22,000	16.....	2,630	16,700	6,000	26.....	1,630	7,500	3,400
7.....		2,130	35,000	17.....	2,080	38,800	5,000	27.....	1,580	5,000	3,200
8.....		1,980	14,000	18.....	2,800	46,900	4,000	28.....	1,530	4,000	3,000
9.....	1,980	2,130	7,000	19.....	2,380	15,800	7,400	29.....	2,760	3,500	3,000
10.....	3,520	2,430	5,000	20.....	2,080	7,020	22,300	30.....	2,020	3,500	6,000
								31.....	1,680	3,500	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July 9-31.....	4,940	1,530	2,550	1.12	0.97
August.....	46,900	1,380	7,860	3.49	4.02
September.....	35,000	3,000	7,980	3.55	3.96

YADKIN RIVER NEAR SALISBURY, N. C.

LOCATION.—Staff gage at highway bridge known as Piedmont toll bridge, 1,000 feet upstream from Southern Railway bridge and 6 miles northeast of Salisbury, Rowan County.

DRAINAGE AREA.—3,400 square miles.

RECORDS AVAILABLE.—September, 1895, to December, 1909; September, 1911, to December, 1927 (discontinued).

EXTREMES.—Maximum discharge during period, 27,800 second-feet Dec. 5 (gage height, 8.20 feet); minimum, 922 second-feet Oct. 1 (gage height, 1.55 feet).
1895-1909, 1911-1927: Maximum discharge, 121,000 second-feet July 18, 1916 (gage height, 23.8 feet); minimum, 700 second-feet several times in August and September, 1925, and July 24, 1926 (gage height, 1.4 feet).

REMARKS.—Records good except those for estimated period, Dec. 6-31, which are fair. During low stages flow may be somewhat affected by operation of power plants upstream.

Daily and monthly discharge, in second-feet, 1927

Day	Oct.	Nov.	Dec.
1.....	1,000	1,170	1,749
2.....	1,000	1,260	2,800
3.....	2,180	1,350	10,600
4.....	8,240	1,170	25,600
5.....	5,080	1,350	26,400
6.....	2,680	1,350	15,000
7.....	1,640	1,540	7,200
8.....	1,640	1,440	
9.....	4,400	1,440	
10.....	4,400	1,540	
11.....	2,940	1,540	4,800
12.....	2,560	1,540	
13.....	3,200	1,440	
14.....	8,620	1,540	
15.....	3,780	1,440	13,700
16.....	2,420	1,350	
17.....	2,070	1,540	
18.....	2,070	2,940	
19.....	1,640	6,100	4,400
20.....	1,740	2,940	
21.....	1,540	2,420	
22.....	1,540	1,960	
23.....	1,350	1,960	3,600
24.....	1,350	1,740	
25.....	1,260	1,850	
26.....	1,260	1,740	
27.....	1,260	1,540	4,400
28.....	1,170	1,740	
29.....	1,260	1,549	
30.....	1,350	1,540	
31.....	1,350		

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	8,620	1,000	2,520	0.741	0.85
November.....	6,100	1,170	1,800	.529	.59
December.....	26,400	1,740	7,430	2.18	2.51

YADKIN RIVER AT HIGH ROCK, N. C.

LOCATION.—Water-stage recorder at Brinkles Ferry at High Rock, Davidson County, and 2 miles upstream from mouth of Lick Creek. Gage datum is mean sea level.

DRAINAGE AREA.—3,930 square miles.

RECORDS AVAILABLE.—January, 1919, to November, 1927 (discontinued).

EXTREMES.—Maximum discharge during period, 12,600 second-feet Oct. 4 (gage height, 597.07 feet); minimum (estimated), 680 second-feet Nov. 7 (gage height, 593.22 feet).

1919–1927: Maximum discharge, 104,000 second-feet July 21, 1919 (gage height, 605.9 feet); minimum, that of Nov. 7, 1927.

Maximum stage known, 612.1 feet July, 1916 (discharge, 184,000 second-feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1.....	1,040	1,340	11.....	3,900	1,470	21.....	1,640	1,610
2.....	1,020	1,380	12.....	2,600	1,570	22.....	1,510	1,870
3.....	3,690	1,410	13.....	3,250	1,470	23.....	1,410	1,910
4.....	12,000	1,380	14.....	8,680	1,410	24.....	1,380	1,750
5.....	7,980	1,380	15.....	4,760	1,410	25.....	1,380	1,640
6.....	3,360	1,440	16.....	2,700	1,410	26.....	1,410	1,750
7.....	2,080	1,150	17.....	2,240	1,510	27.....	1,350	1,410
8.....	1,760	1,380	18.....	1,990	2,460	28.....	1,350	1,640
9.....	6,440	1,380	19.....	1,890	2,450	29.....	1,380	1,610
10.....	6,440	1,490	20.....	1,750	1,420	30.....	1,370	1,570
						31.....	1,320	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	12,000	1,020	3,070	0.781	0.90
November.....	2,450	1,150	1,570	.399	.45

SURFACE WATER SUPPLY, 1928, PART II

PEE DEE RIVER NEAR ROCKINGHAM, N. C.

LOCATION.—At State Highway No. 20 crossing, 1 mile above Falling Creek, 4 miles below Blewett Falls hydroelectric plant, and 6 miles west of Rockingham, Richmond County. Zero of gage is 82.81 feet above mean sea level.

DRAINAGE AREA.—6,910 square miles.

RECORDS AVAILABLE.—September, 1927, to September, 1928.

EXTREMES.—Maximum discharge during period, 212,000 second-feet Sept. 19, 1928 (gage height, 24.38 feet); minimum, 495 second-feet July 22 (gage height, 0.55 foot).

REMARKS.—Records excellent except those for estimated period Sept. 21–30, which are fair. Flow is regulated by a series of storage basins upstream.

Daily and monthly discharge, in second-feet, 1927-28

Day	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		1,420	3,740	3,540	4,800	3,360	3,720	4,770	13,000	7,670	2,480	6,260	6,260
2		2,040	4,680	4,800	5,200	4,260	3,280	3,400	12,400	4,990	1,860	5,200	15,100
3		2,170	4,680	10,300	6,280	9,200	2,460	4,760	6,680	5,200	4,140	4,590	34,700
4		26,700	4,310	50,000	6,660	8,780	1,420	5,940	6,390	8,140	3,660	3,560	39,000
5		15,300	1,780	54,200	5,930	3,820	2,300	5,820	5,810	19,100	6,040	986	34,600
6		9,200	1,040	24,600	7,300	6,030	4,380	5,400	5,820	13,500	5,760	5,460	99,000
7		6,260	3,340	13,200	8,440	6,260	5,560	4,120	7,670	11,800	6,390	6,260	101,000
8		3,290	2,320	9,730	3,020	6,620	4,990	3,450	14,500	9,730	1,420	5,820	54,300
9		4,560	3,140	8,680	5,710	10,800	7,000	3,960	39,000	4,060	4,990	5,700	17,800
10		19,000	4,300	6,710	5,570	11,900	7,010	7,340	19,400	5,400	6,200	4,960	13,600
11		13,000	4,020	2,560	6,350	9,730	6,760	10,100	10,800	7,860	7,680	5,820	9,730
12		9,200	4,780	4,520	6,040	6,400	9,060	25,700	8,560	14,700	9,730	39,900	9,730
13		13,000	2,960	6,680	7,090	8,060	7,220	18,600	6,710	10,800	3,680	61,800	9,200
14		14,200	3,170	6,020	6,660	3,740	8,680	11,300	8,250	8,170	6,340	34,700	8,680
15		12,400	3,260	7,960	4,200	3,080	6,260	9,120	6,140	7,590	8,260	10,800	6,260
16		5,820	3,280	25,800	5,820	4,720	8,680	17,200	6,100	8,680	9,200	39,200	5,200
17		8,440	3,580	39,500	6,260	6,800	6,850	12,400	6,070	5,260	3,770	33,700	8,170
18		5,790	7,100	18,500	6,260	7,180	8,010	9,200	7,180	7,620	10,300	33,700	34,400
19		2,720	8,220	10,800	6,990	8,680	14,200	76,700	4,960	5,940	7,660	68,200	144,000
20		3,720	2,320	8,680	5,820	7,040	11,900	7,180	4,200	5,660	6,690	20,700	132,000
21		2,980	2,350	6,710	5,820	5,890	6,960	6,260	11,100	6,690	6,680	8,170	111,000
22		1,750	3,240	7,310	3,610	6,560	7,180	6,260	10,300	5,360	3,540	7,070	47,200
23		2,170	5,900	7,180	5,960	24,000	8,760	13,600	24,700	4,740	4,060	9,730	16,300
24		2,040	2,460	6,580	6,070	26,400	6,680	21,700	23,100	1,650	5,820	8,680	13,600
25		2,880	3,360	4,180	6,680	11,300	5,360	13,600	19,100	3,680	6,220	6,360	11,900
26		4,320	3,350	5,680	8,680	6,500	6,480	9,730	18,200	6,310	6,830	15,600	
27	2,770	3,460	2,390	4,060	7,220	5,680	5,820	9,350	7,180	7,240	4,790	12,400	
28	4,110	4,070	3,720	5,010	7,670	4,660	6,350	74,600	7,920	5,750	5,640	8,680	7,990
29	2,890	1,820	3,320	5,940	2,760	3,820	7,250	56,800	10,800	7,110	1,040	7,160	
30	2,610	1,650	3,410	6,710	3,040		7,740	19,800	9,730	4,490	3,030	7,010	
31		3,780		7,670	6,140		8,580		8,680		5,420	6,380	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	26,700	1,420	6,750	0.977	1.13
November	8,220	1,040	3,650	.528	.59
December	54,200	2,560	12,400	1.79	2.05
January	8,680	2,780	5,940	.860	.99
February	26,400	3,080	7,970	1.15	1.24
March	14,200	1,420	6,670	.965	1.11
April	74,600	3,400	13,600	1.97	2.20
May	39,000	4,200	11,400	1.65	1.90
June	19,100	1,650	7,660	1.11	1.24
July	10,300	1,040	5,790	.838	.97
August	33,700	986	19,200	2.78	3.20
September	182,000	5,200	35,700	5.17	5.77
The year	182,000	986	11,400	1.65	22.40

PEE DEE RIVER BASIN

65

FISHER RIVER NEAR DOBSON, N. C.

LOCATION.—Chain gage at Turkey Ford highway bridge on Dobson-Ararat road 2 miles east of Dobson, Surrey County.

DRAINAGE AREA.—109 square miles.

RECORDS AVAILABLE.—September, 1920, to September, 1928.

EXTREMES.—Maximum discharge during year, 6,540 second-feet Sept. 6 (gage height, 9.90 feet); minimum, 30 second-feet Oct. 2 (gage height, 0.17 foot). 1920-1928: Maximum discharge, 6,700 second-feet Mar. 16, 1923 (gage height, 10.1 feet); minimum, 16 second-feet Aug. 30, 1925 (gage height, 0.03 foot).

REMARKS.—Records good below and fair above 800 second-feet.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	40	72	70	192	112	118	132	199	115	115	82	318
2.....	33	72	546	158	112	112	129	178	126	103	70	340
3.....	139	75	1,200	229	103	106	123	168	135	95	66	540
4.....	97	80	1,240	222	106	103	118	158	171	90	66	239
5.....	60	70	552	265	109	103	115	158	132	82	218	800
6.....	58	68	249	229	109	103	112	151	123	82	112	3,340
7.....	54	66	341	237	115	100	148	199	112	80	100	568
8.....	58	68	363	178	174	103	135	210	106	126	103	364
9.....	110	72	245	174	138	178	126	245	115	93	66	291
10.....	87	70	196	151	120	138	207	199	100	106	126	239
11.....	70	75	168	148	118	132	409	161	115	120	1,150	203
12.....	723	72	168	132	109	129	319	158	118	93	222	203
13.....	360	70	164	123	106	132	229	142	120	112	135	190
14.....	142	70	158	123	129	112	192	135	168	126	135	186
15.....	113	77	192	118	142	132	171	142	115	87	174	772
16.....	92	87	319	115	126	188	161	135	132	319	5,550	243
17.....	94	274	245	112	120	168	151	129	164	126	3,060	435
18.....	92	154	192	115	145	237	151	233	132	93	460	387
19.....	84	102	171	123	112	210	151	241	106	77	387	1,520
20.....	80	89	164	126	120	174	148	249	98	85	270	850
21.....	75	92	148	103	112	154	199	174	98	90	232	364
22.....	75	82	142	106	115	145	174	178	90	148	210	295
23.....	64	82	135	138	233	135	199	178	109	103	173	254
24.....	75	82	132	112	164	129	207	148	109	87	340	228
25.....	70	75	118	188	145	129	171	138	123	87	217	217
26.....	64	70	158	138	135	132	161	106	145	82	318	200
27.....	75	72	188	135	126	132	701	148	145	77	318	190
28.....	70	75	182	118	115	115	409	158	109	138	186	180
29.....	70	80	148	118	120	118	257	132	582	85	157	190
30.....	64	77	135	174	-----	319	218	129	158	80	148	250
31.....	68	-----	257	118	-----	158	-----	123	-----	82	193	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	723	33	108	0.991	1.14
November.....	274	66	85.7	.786	.88
December.....	1,240	70	280	2.57	2.96
January.....	265	103	152	1.39	1.60
February.....	233	103	127	1.17	1.26
March.....	319	100	143	1.31	1.51
April.....	701	112	204	1.87	2.09
May.....	249	106	168	1.54	1.78
June.....	582	90	139	1.28	1.43
July.....	319	77	105	.963	1.11
August.....	5,550	66	485	4.45	5.13
September.....	3,340	180	480	4.40	4.91
The year.....	5,550	33	207	1.90	25.80

SURFACE WATER SUPPLY, 1928, PART II

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 to September, 1928.

EXTREMES.—Maximum discharge during period, 12,700 second-feet Aug. 17 (gage height, 24.4 feet); minimum, 11 second-feet July 26 (gage height, 0.52 foot).

REMARKS.—Records fair below and poor above 1,500 second-feet. Flow partly estimated Aug. 12, 17, 18. Flow heavily regulated by Erwin Cotton Mills.

Daily and monthly discharge, in second-feet, 1928

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1-----		1,010	178	1,130	16-----		304	5,910	810
2-----		430	201	2,080	17-----	346	237	10,600	602
3-----		330	175	3,350	18-----	572	284	8,460	982
4-----		301	112	2,020	19-----	361	266	2,960	5,020
5-----		284	193	1,830	20-----	307	354	1,120	6,020
6-----		264	238	3,530	21-----	275	238	774	5,130
7-----		334	238	4,630	22-----	284	301	706	2,250
8-----		184	379	2,470	23-----	319	465	635	1,080
9-----		285	499	1,130	24-----	319	341	524	900
10-----		397	290	848	25-----	356	250	573	794
11-----		709	4,990	736	26-----	268	223	533	693
12-----		388	11,000	653	27-----	248	152	547	725
13-----		249	8,460	610	28-----	206	206	471	681
14-----		495	2,660	533	29-----	2,030	232	420	610
15-----		337	1,540	541	30-----	3,000	266	454	2,940
					31-----		187	351	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June 17-30-----	3,000	206	635	1.13	0.59
July-----	1,010	152	333	.595	.69
August-----	11,000	112	2,140	3.82	4.40
September-----	6,020	533	1,840	3.29	3.67

SANTÉE RIVER BASIN

SANTÉE RIVER AT FERGUSON, S. C.

LOCATION.—Water-stage recorder at Ferguson, Orangeburg County, 4 miles below 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, 1928.

EXTREMES.—Maximum discharge during year, 251,000 second-feet Aug. 22 (gage height, 20.60 feet); minimum, 3,350 second-feet Nov. 9 (gage height, 0.94 foot).

1907–1928: Maximum discharge (estimated), 368,000 second-feet July 22, 1916 (gage height, 24.5 feet); minimum, 2,570 second-feet Sept. 2, 1925 (gage height, –0.75 foot).

REMARKS.—Records good. Flow regulated during medium and low water periods by power plants at Parr Shoals and Camden Reservoirs.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1-----	5,730	4,060	4,920	18,400	9,790	35,000	20,100	32,500	25,000	16,700	21,300	30,500
2-----	6,060	3,910	5,840	17,600	11,600	30,500	20,500	30,500	22,800	18,400	20,500	27,200
3-----	5,730	5,520	7,140	17,800	12,200	28,800	20,100	30,500	21,300	19,500	18,400	28,800
4-----	4,220	5,950	10,900	18,900	12,900	26,000	19,500	28,800	18,600	20,900	16,700	27,200
5-----	6,650	5,950	16,300	19,200	12,500	24,100	18,900	27,200	16,500	22,200	15,300	30,500
6-----	8,750	6,060	18,600	19,200	9,640	22,200	16,100	25,000	17,200	22,800	13,500	35,000
7-----	8,050	5,320	19,800	19,200	7,010	20,900	17,600	23,400	18,600	21,700	11,400	35,000
8-----	7,010	3,910	22,200	18,900	8,330	20,500	16,700	20,900	19,800	20,500	11,600	41,000
9-----	6,170	3,910	32,500	17,400	11,300	20,500	13,500	20,500	20,500	18,400	12,700	68,800
10-----	5,420	5,520	41,000	14,000	12,900	20,100	11,400	21,300	20,500	15,300	13,800	119,000
11-----	6,530	5,840	41,000	14,200	13,600	20,100	12,900	22,200	19,800	15,500	14,600	122,000
12-----	9,790	5,950	35,000	15,500	13,100	19,500	15,700	23,400	17,600	17,800	16,700	98,000
13-----	10,300	5,950	32,500	15,900	11,300	19,500	18,400	28,800	17,000	19,800	18,600	71,000
14-----	9,190	5,220	28,800	15,900	9,490	20,500	19,800	38,000	17,400	21,300	20,900	50,000
15-----	8,610	4,060	25,000	15,500	10,100	20,900	21,300	38,000	17,800	22,800	35,000	41,000
16-----	8,190	4,060	23,400	13,100	12,500	21,700	25,000	35,000	18,100	25,000	59,000	35,000
17-----	7,010	5,420	23,400	8,750	14,400	22,200	28,800	28,800	17,800	27,200	86,000	32,500
18-----	5,120	5,520	23,400	9,950	16,100	22,800	30,500	25,000	16,700	27,200	83,000	41,000
19-----	4,470	6,410	25,000	12,700	17,600	23,400	30,500	28,400	14,600	25,000	92,000	41,000
20-----	5,520	7,790	30,500	13,800	18,600	23,400	32,500	22,200	14,400	23,400	161,000	44,000
21-----	5,950	8,190	41,000	14,000	18,900	28,400	32,500	21,700	15,700	22,200	233,000	44,000
22-----	6,170	7,660	44,000	13,100	18,900	23,400	32,500	19,800	16,800	20,900	248,000	56,000
23-----	6,530	7,010	41,000	10,600	19,800	24,100	32,500	19,200	16,500	19,500	221,000	104,000
24-----	5,950	6,890	35,000	7,140	21,300	25,000	32,500	19,500	16,300	16,700	179,000	125,000
25-----	4,470	6,650	30,500	8,330	22,200	25,000	30,500	20,500	14,400	14,200	137,000	113,000
26-----	3,840	5,950	27,200	11,600	25,000	22,200	30,500	21,300	10,600	15,300	95,600	89,000
27-----	4,920	5,420	23,400	13,800	32,500	19,800	35,000	22,800	12,000	16,500	62,000	65,000
28-----	5,220	5,120	19,800	15,000	41,000	18,600	35,000	27,200	14,000	18,100	44,000	47,000
29-----	5,420	4,220	18,600	14,200	41,000	18,900	35,000	32,500	15,300	19,500	38,000	41,000
30-----	5,950	3,910	18,100	10,900	-----	19,500	32,500	32,500	16,000	20,500	35,000	38,000
31-----	5,320	-----	18,400	8,750	-----	19,800	-----	28,800	-----	21,300	30,500	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October-----	10,300	3,840	6,400	0.432	0.50
November-----	8,190	3,910	5,580	.377	.42
December-----	44,000	4,920	25,300	1.71	1.97
January-----	19,200	7,140	14,300	.966	1.11
February-----	41,000	7,010	16,700	1.13	1.22
March-----	35,000	18,600	22,600	1.59	1.83
April-----	35,000	11,400	24,600	1.66	1.85
May-----	38,000	19,200	26,200	1.77	2.04
June-----	25,000	10,600	17,300	1.17	1.30
July-----	27,200	14,200	20,200	1.36	1.57
August-----	248,000	11,400	66,600	4.50	5.19
September-----	125,000	27,200	58,000	3.92	4.37
The year-----	248,000	3,840	25,400	1.72	23.37

SURFACE WATER SUPPLY, 1928, PART II

LINVILLE RIVER AT BRANCH, N. C.

LOCATION.—Staff gage at highway bridge 800 feet from Branch post office, Burke County, a quarter of a mile above Lake James and 2 miles below Linville Gorge.

DRAINAGE AREA.—65 square miles.

RECORDS AVAILABLE.—June, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 16,800 second-feet Aug. 15 (gage height, about 12.0 feet); minimum, 20 second-feet Oct. 1 (gage height, 1.47 feet).

1922-1928: Maximum discharge, that of Aug. 15, 1928; minimum, 7 second-feet Sept. 8, 1925 (gage height, 1.28 feet).

REMARKS.—Records good below and fair above 1,300 second-feet.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	23	40	79	244	96	104	190	197	154	172	98	258
2	26	45	158	172	88	93	179	182	176	132	88	398
3	30	45	730	151	101	79	151	158	148	104	84	710
4	62	59	540	145	88	75	139	148	148	91	84	345
5	45	51	478	120	98	84	123	129	142	88	132	578
6	32	42	332	117	82	75	120	126	139	88	151	1,250
7	36	40	261	120	91	84	510	355	123	84	201	642
8	31	44	478	120	132	70	309	430	109	75	154	455
9	82	50	332	186	145	213	232	309	104	82	216	370
10	51	57	253	176	117	201	257	236	139	120	154	320
11	42	48	220	145	104	145	332	209	117	115	910	241
12	405	45	197	132	98	139	478	179	145	82	405	187
13	380	42	182	123	98	126	332	151	165	261	332	154
14	158	39	182	123	101	120	265	126	197	232	209	138
15	104	39	172	109	104	109	236	117	162	126	3,600	125
16	86	59	405	106	109	139	209	93	109	96	6,640	184
17	72	1,780	332	106	101	126	182	91	91	88	1,020	170
18	70	630	261	104	106	194	176	109	88	98	642	169
19	62	309	216	120	106	158	145	309	96	115	545	320
20	62	220	179	126	115	148	151	355	88	136	302	515
21	57	179	158	104	106	139	142	287	86	79	275	280
22	51	148	136	82	98	139	179	232	88	77	262	220
23	48	126	132	98	158	151	257	355	96	88	216	180
24	48	120	115	96	154	132	236	600	117	79	199	151
25	45	106	106	98	117	126	201	309	88	68	249	138
26	45	91	98	145	120	145	139	220	88	104	320	119
27	48	88	84	98	112	132	253	194	88	240	284	114
28	42	88	75	70	109	145	332	257	79	162	258	108
29	36	79	148	86	96	132	253	253	194	120	216	102
30	39	70	139	104	-----	332	232	380	265	104	191	114
31	39	-----	265	109	-----	265	-----	145	-----	109	184	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	405	23	76.0	1.17	1.35
November	1,780	39	159	2.45	2.73
December	730	75	240	3.69	4.25
January	244	70	124	1.91	2.20
February	158	82	108	1.66	1.79
March	332	70	139	2.14	2.47
April	510	120	231	3.55	3.96
May	600	91	234	3.60	4.15
June	265	79	128	1.97	2.20
July	261	68	117	1.80	2.08
August	6,640	84	601	9.25	10.66
September	1,250	102	302	4.64	5.18
The year	6,640	23	205	3.15	43.02

HENRY FORK NEAR HENRY RIVER, N. C.

LOCATION.—Water-stage recorder at highway bridge at old Link Ford, Catawba County, 1½ miles downstream from county line and 2 miles below Henry River, Burke County.

DRAINAGE AREA.—80 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 14,400 second-feet Aug. 16 (gage height, 15.30 feet); minimum, 9.0 second-feet Nov. 13 and 14 (gage height, 0.63 foot).

1925-1928: Maximum discharge, that of Aug. 16, 1928; minimum, 4.1 second-feet July 19 and 20, 1926 (gage height, 0.49 foot).

REMARKS.—Records good except those for estimated periods, Mar. 3-13, 19-31, Apr. 23-30, and May 1-20, which are poor. About 5 second-feet diverted upstream for water supply for Morganton and State Hospital for the Insane.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	40	40	228	78	94	174		50	73	60	140
2	11	40	149	115	64	84	140		82	73	46	162
3	37	48	610	115	72	75	115		65	56	47	400
4	40	45	740	120	57	70	107	110	116	48	48	213
5	39	27	342	130	64		99		130	67	70	374
6	36	12	200	130	76		94		100	69	125	1,100
7	35	42	140	140	56		88		85	56	88	400
8	25	41	290	130	102	75	104		106	63	78	242
9	62	35	200	120	109		95		50	70	85	200
10	66	41	120	104	97		116	180	82	102	79	162
11	50	40	116	88	80		174		140	140	4,990	140
12	59	23	104	83	80	120	380		88	85	664	740
13	81	9.4	93	78	82	105	242		95	120	273	130
14	57	38	92	70	81	86	162		140	102	200	130
15	33	37	98	64	87	86	130		94	76	1,100	120
16	36	37	151	67	79	151	130		48	74	8,080	200
17	49	44	162	62	80	186	109	95	100	73	806	151
18	37	106	130	63	85	290	107		84	72	380	140
19	37	53	111	63	80		102		76	41	242	448
20	43	46	86	63	84		115		94	41	200	563
21	38	44	92	55	72		130	100	97	62	174	273
22	22	40	77	55	116	120	130		102	65	63	161
23	11	41	78	64	665				140	23	87	116
24	36	19	74	70	258			109	70	72	130	151
25	37	46	78	104	151			99	70	78	140	130
26	37	23	70	82	130		160		97	89	55	130
27	38	30	69	76	116			106	56	67	118	116
28	40	46	66	69	100	115		116	32	62	116	111
29	22	38	80	47	97			104	70	62	111	168
30	11	40	82	76			170	120	102	69	99	186
31	39		208	69				78		61	95	

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	81	11	38.1	May			121
November	106	9.4	39	June		23	83.3
December	740	40	160	July	140	41	72.2
January	228	47	90.3	August	8,080	46	614
February	665	56	114	September	1,100	111	239
March			110				
April			144	The year	8,080	9.4	153

SURFACE WATER SUPPLY, 1928, PART II

LITTLE SUGAR CREEK NEAR CHARLOTTE, N. C.

LOCATION.—Water-stage recorder just upstream from sewage disposal plant of city of Charlotte, a quarter of a mile below Brier Creek and 5 miles south of Charlotte, Mecklenburg County.

DRAINAGE AREA.—41.4 square miles.

RECORDS AVAILABLE.—July, 1924, to September, 1928.

EXTREMES.—Maximum discharge during year, about 7,030 second-feet Aug. 16 (gage height, 14.97 feet); minimum, 3.0 second-feet Oct. 2.

1924-1928: Maximum discharge, that of Aug. 16, 1928; minimum, 1.6 second-feet July 30 to Aug. 1, 1925.

REMARKS.—Records excellent except those for estimated period, January 9-14, which are poor.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	6.3	17	41	64	27	26	34	18	16.0	7.9	136
2	3.2	6.6	427	27	35	25	26	31	95	13.0	7.9	444
3	393.0	8.4	832	34	28	22	25	27	99	12.0	6.9	110
4	26.0	6.9	784	21	23	22	24	26	88	11.0	6.9	48
5	9.4	5.6	226	19	21	22	23	24	168	12.0	7.4	535
6	6.6	5.6	83	19	21	22	22	21	116	71.0	8.9	575
7	5.9	5.6	50	19	21	22	30	33	31	13.0	7.9	96
8	6.6	5.9	40	19	208	22	24	319	25	12.0	34.0	53
9	17.0	6.6	27	19	58	138	19	108	21	12.0	48.0	41
10	7.9	6.3	23	40	37	52	233	48	15	51.0	18.0	34
11	6.6	6.3	19	20	31	67	551	37	47	50.0	1,260.0	29
12	384.0	6.3	23		27	52	120	31	21	19.0	129.0	31
13	56.0	6.6	23		28	40	60	25	15	48.0	155.0	27
14	15.0	6.3	20		128	37	46	24	27	150.0	86.0	24
15	10.0	6.3	530		60	35	163	24	23	14.0	313.0	23
16	9.4	6.3	558	18	86	35	71	23	16	11.0	2,770.0	20
17	8.9	85.0	86	18	66	130	46	23	16	9.4	458.0	18
18	8.4	17.0	44	18	92	174	39	23	17	8.9	66.0	1,880
19	7.9	7.9	39	21	37	54	34	21	16	8.4	41.0	1,680
20	6.9	6.3	33	22	37	41	56	22	14	7.4	39.0	235
21	6.6	6.3	28	18	35	36	36	21	13	23.0	28.0	101
22	6.3	5.9	26	16	197	34	259	100	13	8.4	26.0	101
23	6.3	5.9	23	16	221	33	168	47	106	51.0	23.0	90
24	5.9	5.6	20	50	86	31	75	27	19	11.0	27.0	86
25	5.9	5.9	19	60	52	34	47	36	17	7.9	29.0	78
26	5.9	6.3	19	29	37	30	39	46	14	7.9	36.0	64
27	5.6	6.3	19	26	35	75	199	22	13	8.9	28.0	54
28	5.6	6.3	19	23	33	30	101	27	12	8.4	23.0	50
29	5.6	6.6	21	17	30	27	47	19	27	8.4	21.0	46
30	5.6	6.6	21	17	-----	94	39	42	79	8.9	19.0	174
31	5.9	-----	86	29		33	-----	21	-----	8.9	29.0	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	398	3.2	34.1	0.824	0.95
November	85	5.6	9.33	.225	.25
December	832	17	135	3.26	3.78
January	60	16	24.0	.580	.67
February	221	21	63.2	1.53	1.65
March	174	22	48.3	1.17	1.35
April	551	19	88.3	2.13	2.33
May	319	19	43.0	1.04	1.20
June	168	12	40.0	.966	1.08
July	150	7.4	22.6	.546	.63
August	2,770	6.9	186	4.49	5.18
September	1,880	18	229	5.53	6.17
The year	2,770	3.2	76.8	1.86	23.27

BROAD RIVER NEAR CHIMNEY ROCK, N. C.

LOCATION.—Water-stage recorder 1,000 feet below Lake Lure dam, 1½ miles above old gaging station at Uree, and 3 miles east of Chimney Rock, Rutherford County.

DRAINAGE AREA.—97 square miles.

RECORDS AVAILABLE.—March, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year (estimated), 20,500 second-feet Aug. 15 (gage height, 15.0 feet); minimum, 0.7 second-foot Sept. 13 (gage height, 0.26 foot) caused by regulation.

1927-28: Maximum discharge, that of Aug. 15, 1928; minimum, that of Sept. 13, 1928.

REMARKS.—Records good except those for Aug. 16-24, which were estimated. Some regulation of flow at Lake Lure.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	96	95	57	7.5	96	73	184	132	194	212	302
2	2.3	90	230	230	94	80	278	172	124	158	195	514
3	87	5.5	365	178	97	88.	167	182	92	95	127	1,160
4	89	91	380	8.2	82	15	96	211	282	96	131	790
5	2.9	5.5	416	97	7.5	152	186	117	171	88	188	808
6	95	5.5	147	145	183	112	94	31	175	96	273	1,360
7	89	92	121	51	46	93	210	466	95	160	175	958
8	43	6.3	204	7.5	216	91	148	595	141	198	134	675
9	2.1	98	160	272	94	216	358	513	129	406	183	565
10	96	3.6	89	95	43	101	287	287	6.7	196	247	208
11	172	15.6	4.3	94	187	6.7	318	177	214	237	560	44
12	137	76	176	97	7.5	260	880	291	241	222	528	1.8
13	190	3.5	96	186	225	97	351	127	175	118	465	.8
14	96	95	101	134	143	81	114	308	134	166	98	.8
15	43	94	151	5.9	94	97	104	124	179	95	5,260	1.0
16	1.2	3.5	361	95	179	237	343	181	133	178	9,460	1.0
17	86	372	236	167	96	130	282	88	127	95	2,080	1.0
18	2.4	95	67	120	135	142	88	258	178	181	1,500	855
19	93	47	252	46	6.7	277	94	95	91	97	1,170	832
20	2.7	8.8	152	126	177	265	215	147	94	131	700	1.1
21	2.5	101	33	93	96	95	206	468	94	92	500	.9
22	45	5.5	150	6.7	158	96	125	406	133	84	420	.9
23	6.7	128	96	97	275	92	332	243	104	127	340	.9
24	91	5.1	81	138	118	147	328	176	118	89	300	.8
25	2.9	1.5	40	151	81	48	195	251	283	109	878	.9
26	2.5	3.1	140	95	71	240	162	150	3.1	139	465	.8
27	117	3.1	80	46	255	142	304	146	82	127	465	.9
28	3.9	84	153	123	110	216	217	238	92	261	350	.9
29	87	168	152	7.5	180	44	113	129	172	123	296	.9
30	7.1	3.9	142	122	-----	282	801	173	205	227	264	7.5
31	6.3	-----	200	181	-----	112	-----	177	-----	472	247	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	190	1.2	54.7	0.564	0.65
November	372	3.1	64.4	.604	.74
December	416	4.3	163	1.68	1.94
January	272	5.9	106	1.09	1.26
February	275	6.7	118	1.22	1.32
March	282	6.7	134	1.38	1.59
April	380	73	216	2.23	2.49
May	595	81	229	2.36	2.72
June	283	3.1	140	1.44	1.61
July	472	84	163	1.68	1.94
August	9,460	98	925	9.54	11.00
September	1,360	.8	303	3.12	3.48
The year	9,460	.8	219	2.26	30.74

SURFACE WATER SUPPLY, 1928, PART II

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.

DRAINAGE AREA.—815 square miles.

RECORDS AVAILABLE.—June, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 56,800 second-feet Aug. 16 (gage height, 23.3 feet); minimum, 247 second-feet Oct. 2.

1925-1928: Maximum discharge, that of Aug. 16, 1928; minimum, 186 second-feet Sept. 21 and 22, 1925.

REMARKS.—Records good except those for Aug. 17-28, which were estimated. Diurnal regulation caused by operation of power plants on Second Broad and Green Rivers.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	303	343	485	1,420	1,210	1,450	1,120	1,520	1,170	1,520	1,620	1,840
2.....	255	391	1,680	898	855	1,420	855	1,520	1,220	1,220	1,220	2,080
3.....	322	511	3,550	1,320	869	898	1,460	1,320	1,740	1,260	940	3,520
4.....	369	544	4,980	1,320	855	658	1,210	1,320	1,620	985	940	4,100
5.....	397	425	3,290	855	658	855	1,210	1,080	1,960	1,260	1,080	4,440
6.....	485	359	2,190	1,030	620	1,000	1,120	775	1,420	855	1,260	9,250
7.....	397	564	1,320	855	872	994	1,120	1,520	1,320	898	1,320	6,650
8.....	353	550	2,310	695	940	940	985	3,290	1,260	1,220	1,120	3,960
9.....	890	485	1,840	775	1,160	1,280	855	3,160	1,120	1,960	1,170	3,260
10.....	1,030	511	1,320	1,030	855	1,420	1,820	2,560	940	1,840	2,100	2,790
11.....	620	425	1,030	958	940	985	2,190	1,960	1,030	1,420	17,500	2,310
12.....	727	275	735	855	695	855	2,550	1,620	1,620	1,220	10,900	2,080
13.....	839	449	1,020	839	658	1,380	1,960	1,420	1,520	3,300	3,720	1,960
14.....	695	550	1,080	985	1,260	1,120	1,960	1,420	1,520	1,620	2,790	1,840
15.....	620	504	1,260	620	1,120	1,220	1,520	1,520	1,740	1,260	12,700	2,240
16.....	518	455	2,910	620	958	1,320	1,030	1,320	1,320	1,120	51,200	3,560
17.....	711	1,640	2,430	864	1,180	1,740	1,620	1,320	1,320	1,120	38,600	1,960
18.....	550	2,310	1,520	775	985	1,960	1,420	1,320	1,230	1,080	8,020	2,080
19.....	397	1,430	985	1,080	855	1,840	1,220	1,620	1,120	1,120	4,100	4,200
20.....	419	695	1,620	940	658	1,840	1,220	1,620	895	940	3,550	2,900
21.....	391	550	1,420	940	791	1,740	1,170	1,520	940	1,030	3,290	1,960
22.....	322	504	1,260	658	1,090	1,620	1,080	1,940	940	898	2,790	1,840
23.....	377	518	1,030	550	3,110	1,320	1,080	2,550	1,034	1,030	2,790	1,740
24.....	518	369	775	635	2,670	1,170	1,590	1,940	985	1,020	2,550	1,630
25.....	531	759	815	815	1,670	940	1,620	1,520	940	3,830	3,030	1,530
26.....	557	658	620	1,170	1,170	898	1,320	1,520	1,220	1,620	3,030	1,420
27.....	455	369	620	940	985	1,550	1,840	1,260	855	1,620	2,550	1,630
28.....	571	695	620	855	1,480	1,220	2,910	1,320	898	1,890	2,310	1,420
29.....	380	550	855	550	1,220	1,280	1,960	1,320	1,570	1,420	2,080	1,460
30.....	307	498	985	620	-----	1,420	1,220	1,220	4,060	1,170	1,960	1,260
31.....	348	-----	1,030	807	-----	1,960	-----	1,170	-----	1,520	1,840	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	1,030	-----	505	0.620	0.71
November.....	2,310	-----	626	.768	.86
December.....	4,980	485	1,500	1.84	2.12
January.....	1,420	550	880	1.08	1.24
February.....	3,110	620	1,110	1.36	1.47
March.....	1,960	658	1,300	1.60	1.84
April.....	2,910	855	1,470	1.80	2.01
May.....	3,290	775	1,620	1.99	2.29
June.....	4,060	855	1,350	1.66	1.85
July.....	3,830	855	1,430	1.75	2.02
August.....	51,200	940	6,260	7.68	8.85
September.....	9,250	1,260	2,770	3.40	3.79
The year.....	51,200	-----	1,740	2.13	29.05

BROAD RIVER AT RICHTEX, S. C.

LOCATION.—Water-stage recorder 1 mile upstream from mouth of Little River at Richtex, Fairfield County.

DRAINAGE AREA.—4,800 square miles.

RECORDS AVAILABLE.—November, 1925, to August, 1928.

EXTREMES.—Maximum discharge during year, 222,000 second-feet Aug. 17 (gage height 30.0 feet); minimum (estimated), 155 second-feet Oct. 2 (gage height, 0.30 foot).

1925-1928: Maximum discharge, that of Aug. 17, 1928; minimum, that of Oct. 2, 1927.

REMARKS.—Records good. Complete regulation by operation of Parr Shoals hydroelectric plant, 11 miles upstream. Recorder installation destroyed by flood of Aug. 17 and record from Aug. 3 lost.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	558	905	2,290	5,060	3,950	5,240	9,360	7,680	4,990	26,400	4,340
2	305	1,220	4,450	7,400	4,880	4,770	7,410	6,230	3,150	13,800	4,280
3	2,440	1,140	14,900	5,070	4,900	2,790	5,530	5,690	3,210	6,490	4,340
4	1,770	1,610	31,900	4,780	2,220	4,400	5,760	5,370	4,640	3,790	-----
5	1,910	1,430	31,900	4,500	1,700	4,550	5,750	4,260	7,100	4,870	-----
6	1,480	895	19,800	4,220	3,520	5,270	4,580	3,900	8,520	4,660	-----
7	1,250	1,700	9,980	3,080	3,680	4,950	2,370	4,620	6,970	3,480	-----
8	764	1,050	7,700	1,830	4,930	4,340	3,680	11,400	5,150	2,080	-----
9	1,500	1,200	6,330	3,830	5,250	4,310	5,150	27,200	3,760	4,740	-----
10	4,700	1,090	5,620	4,220	4,740	1,960	4,680	24,800	3,060	5,330	-----
11	2,990	1,450	5,940	4,220	4,570	3,600	15,000	15,000	4,460	14,400	-----
12	2,100	1,430	5,140	4,780	3,950	7,420	22,300	8,280	4,600	11,300	-----
13	2,400	1,090	3,230	4,780	4,840	6,180	16,200	6,900	4,900	10,600	-----
14	3,150	1,500	4,500	3,380	5,440	5,850	9,750	5,960	4,600	8,130	-----
15	2,400	1,000	5,650	779	5,230	6,850	10,200	4,800	4,720	8,340	-----
16	1,140	1,670	24,000	4,020	4,850	6,060	17,800	5,380	4,600	6,530	-----
17	1,700	2,430	28,200	4,220	4,300	5,000	13,300	4,900	5,070	5,030	-----
18	1,320	4,370	17,900	4,220	4,950	11,200	8,820	4,860	5,100	4,530	-----
19	1,660	3,810	10,900	3,680	5,330	15,700	7,000	3,710	4,760	4,220	-----
20	1,940	4,500	7,500	3,150	6,000	9,500	6,180	3,950	4,660	4,300	-----
21	1,890	3,790	6,140	2,480	5,240	7,620	8,200	4,240	4,700	3,700	-----
22	1,360	2,050	5,670	1,320	6,050	6,450	7,600	4,910	4,300	1,560	-----
23	1,400	2,000	4,520	2,880	16,800	6,050	13,400	10,500	2,780	2,950	-----
24	996	2,420	3,410	3,010	20,900	4,670	13,200	23,900	665	2,850	-----
25	1,290	1,940	2,900	4,780	14,200	4,280	9,350	14,500	3,200	4,080	-----
26	1,040	1,090	2,900	5,360	8,600	5,320	7,080	6,870	2,940	9,630	-----
27	1,120	1,450	4,010	4,930	7,400	5,940	6,920	4,850	3,360	15,900	-----
28	998	1,600	4,420	2,460	6,190	9,390	16,400	4,650	4,070	14,200	-----
29	1,230	588	4,680	2,350	5,720	8,030	14,700	4,320	4,360	8,950	-----
30	927	1,970	4,220	3,240	-----	6,930	10,360	5,040	17,900	5,780	-----
31	1,600	-----	3,670	3,410	-----	12,400	-----	5,000	4,770	-----	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	4,700	305	1,660	0.346	0.40
November	4,500	588	1,810	.377	.42
December	31,900	2,290	9,500	1.96	2.28
January	7,400	779	3,790	.790	.91
February	20,900	1,700	6,220	1.30	1.40
March	15,700	1,960	6,360	1.32	1.52
April	22,300	2,370	9,610	2.00	2.23
May	27,200	3,710	8,180	1.70	1.96
June	17,900	665	4,880	1.02	1.14
July	26,400	1,560	7,330	1.53	1.76

SURFACE WATER SUPPLY, 1928, PART II

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, 1928.

EXTREMES.—Maximum discharge during year, 15,000 second-feet Aug. 16 (gage height, 17.26 feet); minimum, 20 second-feet Nov. 20.

1925-1928: Maximum discharge, that of Aug. 16, 1928; minimum, 9.6 second-feet June 21, 1925.

REMARKS.—Records good except those for estimated period, Nov. 13-18, which are fair. Large diurnal fluctuation caused by operation of Cliffside mills, upstream.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1-----	74	118	109	430	203	228	316	318	188	226	265	284
2-----	35	116	395	310	185	224	306	286	193	172	186	208
3-----	95	135	850	206	189	162	258	269	128	258	64	598
4-----	94	132	1,340	218	147	113	225	248	368	111	109	1,020
5-----	90	88	895	170	77	264	217	220	447	208	122	620
6-----	87	42	420	175	237	191	220	131	277	43	216	1,520
7-----	92	142	308	226	165	167	145	375	207	86	158	1,520
8-----	63	149	488	145	202	170	185	610	205	134	188	620
9-----	240	111	352	258	252	207	273	575	131	294	265	606
10-----	210	131	282	253	233	293	215	430	86	200	715	426
11-----	117	94	181	290	192	245	378	345	268	176	4,940	343
12-----	128	40	218	117	128	279	575	362	400	171	4,980	332
13-----	114	120	220	189	263	205	387	160	322	362	1,020	317
14-----	143	130	189	148	187	210	293	293	278	275	653	284
15-----	99	110	284	120	177	210	304	212	244	160	4,100	438
16-----	53	100	648	242	242	236	317	218	218	235	13,200	1,130
17-----	157	250	508	172	204	404	251	216	156	160	5,120	438
18-----	124	400	333	158	156	508	219	211	272	145	1,180	360
19-----	128	150	331	181	142	508	218	312	194	218	805	673
20-----	128	101	257	182	242	349	210	156	165	142	780	620
21-----	120	177	216	158	176	307	207	266	158	94	689	438
22-----	85	154	207	49	168	274	240	221	164	94	457	359
23-----	39	151	215	216	733	232	324	512	120	220	403	332
24-----	106	25	97	166	648	237	315	347	112	182	470	397
25-----	103	144	168	196	404	156	289	277	239	695	841	338
26-----	121	89	168	218	322	299	243	251	179	312	535	216
27-----	93	44	189	198	328	263	362	160	168	204	359	298
28-----	116	170	160	153	258	262	808	270	192	338	438	190
29-----	74	118	237	68	225	203	475	230	243	221	313	296
30-----	42	108	142	217	-----	329	379	198	610	212	253	144
31-----	123	-----	266	167	-----	508	-----	186	-----	397	270	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October-----	240	35	106	0.461	0.53
November-----	-----	40	128	.557	.62
December-----	1,340	97	344	1.50	1.73
January-----	430	49	193	.839	.97
February-----	733	77	244	1.06	1.14
March-----	508	113	266	1.16	1.34
April-----	808	145	305	1.33	1.48
May-----	610	131	286	1.24	1.43
June-----	610	86	231	1.00	1.12
July-----	695	43	218	.948	1.09
August-----	13,200	64	1,420	6.7	7.11
September-----	1,520	144	516	2.24	2.50
The year-----	13,200	35	356	1.55	21.06

SANDY RUN CREEK NEAR BOILING SPRINGS, N. C.

LOCATION.—Staff gage at county highway bridge half a mile below mouth of Gray Creek and $2\frac{1}{4}$ miles southeast of Boiling Springs, Cleveland County

DRAINAGE AREA.—67 square miles.

RECORDS AVAILABLE.—May, 1925, to December, 1928 (discontinued).

EXTREMES.—Maximum discharge during period (estimated), 6,400 second-feet Aug. 16 (gage height, 14.4 feet); minimum, 15 second-feet several times during October, 1927 (gage height, 0.38 foot).

1925-1928: Maximum discharge, that of Aug. 16, 1928; minimum discharge, 14 second-feet several times in September, 1925 and 1926, and Nov. 9-13, 1926 (gage height, 0.32 foot).

REMARKS.—Records good below and fair above 500 second-feet. Possibly slight diurnal regulation from old gristmills upstream.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	22	21	21	71	74	56	124	68	48	63	51	64	79	58	56
2.....	22	19	150	68	51	51	74	63	45	51	48	61	77	58	56
3.....	21	31	305	48	45	48	63	58	44	48	47	56	77	58	56
4.....	20	31	285	44	45	47	56	56	75	46	46	108	74	58	56
5.....	19	31	142	39	47	46	56	53	177	45	46	116	74	58	51
6.....	19	31	48	50	47	44	51	51	150	108	44	196	71	58	51
7.....	18	31	42	57	45	40	48	48	63	86	44	124	68	57	46
8.....	18	30	150	50	124	38	48	116	51	75	42	177	67	56	46
9.....	18	29	98	47	61	168	46	94	50	71	40	159	66	56	46
10.....	17	29	79	46	56	86	63	85	48	63	37	124	66	56	46
11.....	15	28	72	45	53	88	124	79	46	57	2,900	100	66	61	45
12.....	425	29	66	45	51	68	116	72	46	100	336	85	64	61	44
13.....	84	29	57	44	47	63	84	70	133	81	177	77	63	61	53
14.....	54	29	53	40	45	59	72	66	159	66	168	74	63	68	63
15.....	46	27	74	40	42	63	74	61	63	61	1,020	68	62	57	61
16.....	45	26	285	38	56	150	63	58	56	58	3,520	66	61	56	61
17.....	44	86	150	44	53	133	62	56	66	57	475	64	68	56	61
18.....	40	108	94	44	50	86	124	53	72	56	225	133	67	56	61
19.....	38	53	74	42	48	72	168	51	59	53	150	196	66	56	59
20.....	36	51	56	44	47	63	116	51	48	51	142	168	66	56	58
21.....	32	45	63	40	50	56	94	50	46	48	225	142	66	56	58
22.....	31	37	59	40	150	74	94	48	46	48	100	116	63	56	56
23.....	31	31	53	40	215	68	88	48	44	46	86	97	62	51	56
24.....	31	29	51	38	86	63	75	46	44	46	133	88	61	51	56
25.....	30	29	46	37	72	205	67	46	40	159	159	85	56	51	56
26.....	29	27	45	36	70	186	63	54	38	150	116	82	54	51	53
27.....	29	27	44	39	63	168	136	63	64	82	97	77	53	51	53
28.....	26	25	44	44	61	98	86	61	36	72	78	74	53	46	46
29.....	25	25	62	44	58	63	77	56	62	66	68	68	66	46	46
30.....	25	24	59	40	-----	168	70	53	72	63	70	66	66	51	46
31.....	22	-----	74	67	-----	124	-----	51	-----	61	71	-----	66	-----	46

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
1927-28					
October.....	425	15	43.0	0.642	0.74
November.....	108	19	34.9	.521	.58
December.....	305	21	93.6	1.40	1.61
January.....	71	36	45.5	.679	.78
February.....	215	42	65.9	.984	1.06
March.....	205	38	88.5	1.32	1.52
April.....	186	46	84.4	1.26	1.41
May.....	116	46	60.8	.907	1.05
June.....	177	38	68.0	1.01	1.13
July.....	159	45	68.9	1.03	1.19
August.....	3,520	87	347	5.18	5.97
September.....	196	56	104	1.55	1.73
The year.....	3,520	15	92.4	1.38	18.77
1928					
October.....	79	53	65.5	.978	1.13
November.....	61	46	55.4	.827	.92
December.....	63	44	53.1	.793	.91

SALUDA RIVER AT CHAPPELLE, S. C.

LOCATION.—Water-stage recorder at steel highway bridge at Chappells, Newberry County, $8\frac{1}{2}$ miles above mouth of Little River. Zero of gage is 364.21 feet above mean sea level.

DRAINAGE AREA.—1,290 square miles.

RECORDS AVAILABLE.—May, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 56,200 second-feet Aug. 17 (gage height, 29.97 feet); minimum, 220 second-feet Oct. 3 (gage height, 0.99 foot).

1927-28: Maximum discharge, that of Aug. 17, 1928; minimum, that of Oct. 3, 1927.

REMARKS.—Records good. Diurnal regulation caused by operation of Ware Shoals power plant.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310	408	518	2,930	1,430	1,510	2,390	2,120	1,850	2,840	2,800	2,160
2	266	408	1,020	2,300	1,760	1,470	1,670	1,980	2,080	2,480	2,750	2,300
3	222	408	4,450	2,120	1,550	1,390	1,980	1,900	1,760	1,760	1,900	2,660
4	255	462	7,200	1,760	1,310	968	1,760	1,760	2,300	1,350	1,720	2,750
5	277	408	8,000	1,510	932	1,010	1,510	1,590	2,930	1,200	1,430	4,000
6	334	408	4,840	1,270	896	1,590	1,550	1,800	3,670	1,590	1,550	9,230
7	358	310	2,700	1,160	1,590	1,470	1,350	3,840	2,980	1,430	1,670	6,480
8	310	358	2,120	896	1,390	1,230	1,120	8,500	2,380	1,350	1,270	5,080
9	581	518	2,260	862	1,630	1,310	1,120	11,000	2,120	2,480	1,550	3,670
10	1,270	434	2,300	1,760	1,670	1,390	2,300	10,100	1,850	4,570	1,880	2,800
11	1,310	462	1,670	1,590	1,270	2,120	4,140	5,380	1,590	5,520	8,600	2,620
12	636	462	1,390	1,310	1,080	2,440	5,100	3,120	1,850	4,720	12,900	2,390
13	490	490	1,670	1,270	1,040	2,210	4,030	2,570	2,570	2,980	13,900	2,260
14	490	334	1,590	1,200	1,720	2,300	2,660	2,260	2,300	2,980	11,200	2,120
15	762	462	2,860	1,010	1,760	2,480	3,660	2,340	2,440	2,660	10,100	2,160
16	518	518	7,760	730	1,630	2,030	6,570	2,300	1,800	1,940	30,600	5,380
17	408	490	9,230	1,430	1,470	1,850	4,200	2,160	1,670	1,720	54,200	2,840
18	546	1,480	7,250	1,270	2,300	3,870	2,340	1,980	1,590	1,470	47,600	3,820
19	606	1,510	3,200	1,010	1,550	3,520	2,030	2,080	1,940	1,160	30,600	7,200
20	462	1,120	2,390	1,160	1,160	2,800	2,080	1,980	1,510	1,200	16,000	5,310
21	546	698	1,980	1,120	1,550	2,440	2,570	1,960	1,590	1,270	9,700	2,930
22	434	1,160	1,720	862	1,480	2,120	2,390	2,540	1,200	968	7,800	2,120
23	408	698	1,590	730	5,320	1,850	4,140	6,750	1,200	794	3,980	1,850
24	358	606	1,310	1,390	4,360	1,470	4,480	9,950	1,270	1,040	3,320	1,590
25	358	636	1,040	1,800	3,170	1,230	3,370	9,700	896	1,080	2,980	1,850
26	462	666	1,080	2,120	2,480	1,720	2,570	3,320	1,760	2,340	3,020	1,760
27	434	576	1,120	1,510	1,940	2,160	2,520	2,080	1,510	4,840	3,020	1,630
28	490	408	1,430	1,200	2,080	2,520	4,030	1,850	1,270	4,600	2,840	1,510
29	462	546	1,120	1,010	1,850	2,480	3,420	2,120	1,350	2,210	2,760	1,550
30	462	606	1,120	968	-----	2,080	2,570	2,080	1,800	1,950	2,480	1,470
31	334	-----	1,760	1,510	-----	2,980	-----	2,030	-----	1,850	2,300	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,310	222	489	0.379	0.44
November	1,510	310	602	.467	.52
December	9,230	518	2,890	2.24	2.58
January	2,930	730	1,380	1.07	1.23
February	5,320	896	1,840	1.43	1.54
March	3,870	968	2,000	1.55	1.79
April	6,570	1,120	2,850	2.21	2.47
May	11,000	1,590	3,710	2.88	3.32
June	3,670	896	1,900	1.47	1.64
July	5,520	794	2,270	1.76	2.03
August	54,200	1,270	9,630	7.47	8.61
September	9,230	1,470	3,180	2.47	2.76
The year	54,200	222	2,740	2.12	23.93

SALUDA RIVER NEAR SILVERSTREET, S. C.

LOCATION.—Staff gage 500 feet upstream from Higgins Ferry bridge, 1 mile below mouth of Little River, and 2½ miles south of Silverstreet, Newberry County.

DRAINAGE AREA.—1,570 square miles.

RECORDS AVAILABLE.—January, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 60,400 second-feet Aug. 18 (gage height, 30.6 feet); minimum, 265 second-feet Oct. 3 (gage height, 3.50 feet).

1927-28: Maximum discharge, that of Aug. 18, 1928; minimum, 248 second-feet Sept. 29, 1927 (gage height, 3.45 feet).

REMARKS.—Records good. Discharge estimated Aug. 16-20. Diurnal fluctuation caused by operation of power plants upstream.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	412	423	550	3,820	1,520	1,570	2,820	2,150	2,330	2,690	2,760	2,330
2	395	470	875	3,210	1,740	1,570	1,850	2,150	1,850	1,790	3,080	2,690
3	280	454	3,140	2,510	1,520	1,520	2,090	2,090	2,030	1,970	2,330	2,880
4	319	510	8,000	1,970	1,460	1,050	1,850	1,910	2,780	1,460	1,740	3,840
5	374	510	9,260	1,790	1,300	1,050	1,740	1,680	2,690	1,570	1,620	4,540
6	402	470	8,000	1,380	900	1,740	1,620	2,030	4,110	1,790	1,970	9,260
7	430	470	3,480	1,380	1,740	1,620	1,450	3,140	3,900	1,620	1,910	10,400
8	395	395	2,450	1,080	1,240	1,300	1,050	8,870	2,570	1,570	1,240	6,090
9	510	590	2,680	925	1,620	1,320	1,400	12,800	2,030	2,510	1,680	4,410
10	1,520	550	2,880	2,330	1,910	1,160	2,450	13,600	2,030	3,820	1,520	3,840
11	1,520	470	2,090	1,910	1,620	2,390	4,860	10,900	1,400	7,080	9,660	3,020
12	775	530	1,520	1,740	1,020	3,020	6,270	3,820	1,970	5,920	15,000	2,820
13	550	570	1,850	1,400	1,240	2,570	5,410	2,950	3,340	3,900	16,900	2,570
14	530	430	1,080	1,300	1,620	2,210	3,280	2,450	2,450	3,080	15,200	2,510
15	750	490	2,950	1,240	2,030	3,540	3,400	2,390	3,480	3,210	15,600	2,390
16	658	612	8,480	800	1,850	2,450	8,240	2,450	2,030	2,210	27,000	8,120
17	490	612	11,200	1,300	1,680	2,270	6,860	2,330	1,850	1,970	48,000	4,940
18	550	1,620	9,940	1,400	2,570	5,330	3,280	2,090	1,680	1,740	52,000	5,090
19	690	1,400	4,710	1,100	2,270	4,340	2,390	1,910	2,090	1,320	39,000	10,600
20	510	975	2,510	1,240	1,620	3,400	2,690	2,150	1,620	1,080	23,000	9,260
21	570	590	2,330	1,270	1,520	2,760	2,690	2,090	1,680	1,380	14,500	4,260
22	490	1,240	2,150	1,000	1,520	2,510	2,950	2,270	1,240	1,130	10,400	2,570
23	510	775	1,970	900	5,330	2,090	5,170	6,460	875	900	5,090	1,970
24	430	635	1,970	1,350	6,460	1,620	5,660	10,600	1,460	1,100	3,760	2,270
25	409	658	1,400	1,850	3,820	1,180	4,340	13,000	850	1,130	3,400	2,210
26	510	680	1,160	2,630	2,880	1,850	3,080	6,760	1,790	2,210	3,140	2,090
27	490	680	1,160	1,850	2,270	2,270	2,690	2,570	1,620	6,270	3,840	1,970
28	510	470	1,740	1,130	2,150	2,760	5,410	2,090	1,350	7,300	3,210	1,790
29	462	550	1,300	1,210	2,270	2,760	4,480	2,330	1,380	3,400	2,950	1,850
30	530	680	1,240	1,080	2,090	3,080	2,270	1,520	3,020	2,820	1,790	1,790
31	423	-----	1,180	1,460	-----	2,760	-----	2,210	-----	2,450	-----	-----
Month	Discharge in second-feet											
	Maximum	Minimum	Mean	Per square mile								
October	1,520	280	561	0.357								
November	1,620	423	650	0.414								
December	11,200	550	3,410	2.17								
January	3,820	800	1,600	1.02								
February	6,460	900	2,090	1.33								
March	5,330	1,050	2,260	1.44								
April	8,240	1,060	3,480	2.22								
May	13,600	1,680	4,400	2.80								
June	4,110	850	2,070	1.32								
July	7,300	900	2,660	1.69								
August	52,000	1,240	10,900	6.94								
September	10,600	1,790	4,110	2.62								
The year	52,000	280	3,190	2.03								

SALUDA RIVER NEAR CHAPIN, S. C.

LOCATION.—Water-stage recorder at Wise Ferry highway bridge, just below mouth of Johns Creek and $7\frac{1}{4}$ miles southeast of Chapin, Lexington County.

DRAINAGE AREA.—2,320 square miles.

RECORDS AVAILABLE.—January, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 59,400 second-feet Aug. 18 (gauge height, 13.08 feet); minimum, 239 second-feet Oct. 5 (gauge height, 0.77 foot).

1927-28: Maximum discharge, that of Aug. 18, 1928; minimum, that of Oct. 5, 1927.

REMARKS.—Records good. Discharge partly estimated Nov. 10-24 and June 5-7.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	345	407	718	3,620	1,740	2,300	3,550	2,990	2,300	2,490	2,140	2,490
2	339	407	860	3,750	1,740	2,000	2,460	2,490	2,460	2,990	3,360	3,170
3	700	470	5,800	2,810	2,000	1,860	2,000	2,300	2,630	2,460	2,810	8,370
4	339	442	14,800	2,300	1,860	1,740	2,140	2,140	2,460	1,740	2,000	7,890
5	262	492	9,870	2,000	1,610	1,490	2,000	2,000	3,550	1,610	2,650	18,700
6	311	442	9,540	1,740	1,210	1,610	1,860	2,000	3,750	1,740	2,580	89,700
7	328	456	5,530	1,610	1,320	2,000	1,740	4,210	3,950	2,320	2,460	22,000
8	375	394	2,990	1,490	1,740	1,860	1,610	16,400	3,360	2,180	2,140	8,890
9	651	334	2,460	1,260	1,860	1,610	1,490	16,400	2,630	1,860	1,610	6,810
10	1,000	594	2,630	1,380	2,140	1,740	1,760	14,700	2,300	3,800	4,950	4,390
11	1,490	492	2,460	2,140	1,860	2,590	7,750	12,700	2,000	11,600	20,000	3,360
12	1,380	485	1,860	1,860	1,490	4,160	8,890	6,050	2,140	10,900	24,300	3,170
13	955	567	1,740	1,610	1,380	3,170	7,390	3,550	2,990	6,570	22,200	2,990
14	604	584	1,860	1,490	1,490	5,650	4,600	2,990	2,990	3,980	17,300	2,630
15	594	449	3,610	1,490	2,300	6,400	5,930	2,630	2,990	3,950	23,200	4,380
16	812	442	14,700	1,210	2,460	3,750	12,700	2,630	2,810	3,170	26,600	4,506
17	670	718	15,100	1,060	3,080	3,170	9,870	2,630	2,300	2,460	41,500	7,976
18	492	765	12,000	1,490	6,990	7,680	4,830	2,460	2,000	2,000	56,700	18,906
19	550	1,860	9,670	1,490	4,140	7,110	2,990	2,300	2,000	1,740	49,300	27,806
20	718	1,740	4,160	1,260	2,300	4,600	2,630	2,460	2,140	1,490	38,400	17,700
21	500	1,210	2,990	1,490	2,000	3,360	4,160	2,630	2,140	1,490	22,200	7,690
22	604	860	2,460	1,380	4,470	2,990	4,380	3,170	2,000	1,610	13,800	3,750
23	500	1,210	2,140	1,110	18,000	2,630	12,200	9,280	1,490	1,160	8,270	2,990
24	485	860	1,860	1,060	12,900	2,140	10,900	25,500	2,000	1,170	4,380	2,460
25	407	718	1,490	2,000	6,460	1,860	6,310	21,100	1,740	2,300	3,550	3,300
26	356	718	1,380	2,630	4,160	1,860	4,160	12,700	1,490	2,810	3,750	2,460
27	456	765	1,380	2,630	3,170	2,300	3,360	3,960	2,000	5,660	4,600	2,300
28	449	651	1,490	1,740	2,630	2,810	7,970	2,630	1,740	7,680	3,550	2,000
29	509	470	1,740	1,490	2,630	3,170	6,050	2,460	1,490	5,300	3,170	2,606
30	485	584	1,490	1,320	-----	2,630	4,160	2,630	1,490	2,460	2,990	2,000
31	517	-----	1,490	1,260	-----	2,810	-----	2,630	-----	2,140	2,630	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,490	262	587	0.253	0.29
November	1,860	334	696	.296	.33
December	15,100	718	4,590	1.98	2.28
January	3,750	1,060	1,780	.767	.88
February	18,000	1,210	3,490	1.60	1.62
March	7,680	1,490	3,070	1.32	1.52
April	12,700	1,490	5,060	2.18	2.48
May	25,500	2,000	6,280	2.71	3.12
June	3,950	1,490	2,380	1.03	1.15
July	11,600	1,160	3,380	1.46	1.68
August	56,700	1,610	13,600	5.86	6.76
September	39,700	2,000	8,280	3.37	3.98
The year	56,700	262	4,440	1.91	26.04

SALUDA RIVER NEAR COLUMBIA, S. C.

LOCATION.—Water-stage recorder a quarter of a mile above site of old Saluda mill and 2 miles above confluence with Broad River at Columbia, Richland County.

DRAINAGE AREA.—2,450 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 58,200 second-feet Aug. 18 (gage height, 13.04 feet); minimum, 235 second-feet Oct. 5 (gage height, 0.53 foot).

1925-1928: Maximum discharge, that of Aug. 18, 1928; minimum, 125 second-feet Sept. 10, 1925 (gage height, 0.25 foot).

REMARKS.—Records good. Slight diurnal fluctuation produced by mills on headwaters.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	312	444	762	3,280	1,950	2,790	3,920	3,440	3,000	2,300	2,210	2,790
2.....	318	376	915	4,180	1,950	2,400	3,000	2,790	2,790	3,220	3,440	7,060
3.....	1,090	488	4,770	3,220	2,300	2,210	2,300	2,590	2,790	2,590	3,000	6,900
4.....	625	451	17,600	2,590	2,040	2,040	2,490	2,490	2,790	1,950	2,490	6,260
5.....	255	480	10,700	2,210	1,700	1,780	2,210	2,400	4,740	1,700	2,120	15,700
6.....	324	495	9,950	1,950	1,340	1,780	2,040	2,210	5,030	1,700	3,220	42,400
7.....	330	444	5,880	1,700	1,280	2,210	2,040	3,220	5,330	2,210	2,590	23,300
8.....	409	437	3,220	1,630	2,040	1,950	1,860	14,300	3,680	2,590	2,400	9,950
9.....	670	336	2,790	1,340	1,950	1,700	1,560	17,700	2,790	1,860	1,780	6,580
10.....	762	670	2,790	1,410	2,300	2,040	1,860	14,800	2,490	3,680	2,650	5,030
11.....	1,560	625	2,790	2,210	2,210	2,300	7,220	13,500	2,300	10,700	31,900	4,180
12.....	1,630	540	2,040	2,040	1,700	4,460	9,230	8,880	2,490	11,900	25,700	3,680
13.....	1,210	670	1,780	1,780	1,560	3,680	7,870	5,030	3,000	7,220	23,900	3,220
14.....	670	670	2,040	1,630	1,560	5,330	5,330	3,920	3,220	4,180	18,800	3,000
15.....	625	540	4,320	1,560	2,490	7,540	5,640	3,440	3,000	4,180	23,300	3,000
16.....	810	510	16,500	1,340	2,790	4,460	13,100	3,220	3,220	3,220	26,300	4,310
17.....	762	810	15,700	1,090	3,220	3,440	10,700	3,220	2,490	3,000	39,700	8,540
18.....	525	762	12,300	1,700	7,870	7,540	6,580	3,000	2,210	2,210	57,100	19,600
19.....	525	1,780	9,950	1,630	5,640	7,870	3,440	2,790	2,120	1,950	52,200	35,200
20.....	715	1,700	4,460	1,340	2,790	5,640	3,000	2,790	2,400	1,630	39,700	21,500
21.....	540	1,280	3,220	1,480	2,120	3,920	5,030	3,000	1,950	1,560	25,100	9,230
22.....	582	810	2,590	1,410	3,210	3,220	4,740	3,440	1,860	1,630	14,800	4,460
23.....	518	1,150	2,210	1,150	19,300	3,000	13,100	6,900	1,560	1,340	9,230	3,680
24.....	480	862	2,120	1,030	14,800	2,490	12,300	23,900	1,860	1,280	5,330	3,000
25.....	423	715	1,780	2,040	8,200	2,040	7,870	23,300	2,210	2,590	3,920	2,790
26.....	362	762	1,410	2,790	5,030	1,950	5,030	14,300	1,480	3,220	4,460	2,790
27.....	430	762	1,480	2,790	3,680	2,590	3,920	7,220	2,210	5,640	5,030	2,590
28.....	465	762	1,560	2,040	3,000	3,000	7,870	3,920	1,950	7,540	4,460	2,490
29.....	495	532	1,860	1,630	3,000	3,440	6,900	3,220	1,630	6,260	3,680	2,400
30.....	438	540	1,630	1,480	-----	3,000	5,930	3,220	1,630	3,790	3,220	2,490
31.....	502	-----	1,630	1,410	-----	2,790	-----	3,220	-----	2,300	2,790	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	1,630	255	625	0.255	0.29
November.....	1,780	336	713	.291	.32
December.....	17,600	762	4,930	2.01	2.32
January.....	4,180	1,030	1,910	.780	.90
February.....	19,300	1,280	3,900	1.69	1.72
March.....	7,870	1,700	3,370	1.33	1.59
April.....	13,100	1,560	5,570	2.27	2.53
May.....	23,900	2,210	6,820	2.78	3.20
June.....	5,330	1,480	2,670	1.09	1.22
July.....	11,900	1,280	3,550	1.45	1.67
August.....	57,100	1,780	14,400	5.88	6.78
September.....	42,400	2,490	8,940	3.65	4.07
The year.....	57,100	255	4,800	1.96	26.61

SAVANNAH RIVER BASIN

SAVANNAH RIVER AT AUGUSTA, GA.

LOCATION.—Water-stage recorder at Center Street Bridge in Augusta, Richmond County. Zero of gage is 103.83 feet above mean sea level.

DRAINAGE AREA.—7,304 square miles.

RECORDS AVAILABLE.—January, 1884, to December, 1891; January, 1899, to December, 1906; June, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 226,000 second-feet Aug. 17 (gage height, 40.40 feet); minimum, 890 second-feet Oct. 3, 23, 30 (gage height, 4.40 feet).

1884-1891, 1899-1906, 1927-28: Maximum discharge, about 310,000 second-feet Sept. 11, 1888 (gage height, 38.7 feet); minimum discharge, that of Oct. 3, 23, 30, 1927.

REMARKS.—Discharge interpolated June 9-12. Considerable regulation by power plants upstream. Records collected by Alabama Power Co. under general supervision of Geological Survey, in connection with a Federal Power Commission project.

• *Daily and monthly discharge, in second-feet, 1927-28*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	1,250	2,080	2,860	10,900	6,320	7,880	6,760	9,380	7,000	7,720	6,570	8,080
2.....	1,040	2,120	6,650	12,700	7,170	7,800	9,210	8,500	6,310	9,530	12,300	10,700
3.....	1,450	1,960	12,100	9,760	7,260	6,340	7,810	7,330	7,160	6,370	9,590	16,960
4.....	1,600	3,240	30,400	8,480	5,620	3,520	7,720	6,900	8,340	5,360	9,710	25,500
5.....	1,640	2,440	24,800	8,370	3,110	6,600	7,510	7,600	9,410	6,390	4,400	24,200
6.....	1,550	1,390	16,200	7,760	7,230	7,780	7,380	5,870	13,900	6,270	6,930	36,200
7.....	1,990	2,000	11,100	6,250	7,200	7,790	5,820	13,300	11,800	9,110	10,200	50,300
8.....	2,320	2,470	7,510	3,720	6,520	7,570	3,440	31,900	9,340	7,520	8,560	33,200
9.....	1,540	2,350	8,000	6,890	6,160	7,970	4,830	47,000	9,020	11,200	8,370	18,900
10.....	5,720	2,560	12,100	7,790	7,000	7,410	7,230	31,400	8,700	12,900	8,290	14,300
11.....	5,620	3,960	7,270	7,790	5,880	11,500	11,400	18,700	8,380	18,800	28,700	11,500
12.....	2,950	3,700	7,450	7,800	3,260	18,700	21,600	13,600	8,060	18,700	39,000	10,700
13.....	2,640	1,430	6,270	7,600	6,510	13,700	20,600	10,300	7,740	12,590	28,700	10,000
14.....	6,210	2,350	6,190	6,260	6,240	10,700	13,800	10,300	7,920	13,800	16,900	9,540
15.....	6,090	2,670	7,660	3,420	7,670	10,700	12,500	7,740	8,320	16,400	18,700	8,320
16.....	2,720	2,260	24,900	6,180	8,150	10,600	25,200	7,330	9,660	10,100	88,200	6,300
17.....	3,010	3,780	43,900	4,850	8,600	10,400	22,200	7,250	9,950	7,370	200,000	11,800
18.....	3,410	5,300	28,900	4,750	12,300	12,200	14,900	7,000	10,700	7,280	177,000	10,400
19.....	2,630	7,340	18,600	6,100	13,000	18,900	12,100	5,420	8,600	7,160	73,400	15,900
20.....	2,500	6,370	12,400	7,220	9,990	14,300	10,700	7,470	8,950	7,160	31,400	19,700
21.....	2,890	4,210	8,750	5,360	6,690	11,200	8,610	13,200	7,980	6,220	23,800	13,600
22.....	2,540	3,450	8,700	3,490	7,340	9,110	10,600	9,270	7,490	4,060	18,000	9,600
23.....	1,900	2,660	8,360	3,320	21,500	8,940	19,100	12,000	5,400	6,610	13,800	6,160
24.....	1,510	4,390	5,090	5,850	29,500	8,350	33,000	24,700	3,960	7,170	11,500	9,490
25.....	2,300	3,820	3,560	6,710	21,200	3,920	25,900	29,700	8,310	6,960	9,870	8,240
26.....	2,220	3,620	4,980	7,360	12,300	7,270	16,200	19,400	7,910	8,540	12,000	6,780
27.....	2,100	1,430	6,500	6,960	12,300	8,230	11,700	11,200	7,840	18,900	12,800	7,320
28.....	2,260	2,860	7,090	5,750	9,030	8,010	14,000	8,080	5,010	16,000	9,940	8,710
29.....	2,990	3,050	7,210	3,670	6,940	9,020	15,600	6,850	7,560	13,700	11,200	7,900
30.....	1,290	2,340	7,800	5,030	8,980	8,980	11,300	6,800	6,120	10,400	9,870	4,060
31.....	1,540	-----	8,980	5,450	-----	10,500	-----	7,260	-----	9,710	8,490	-----

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	6,210	1,040	2,620	0.359	0.41
November.....	7,340	1,390	3,120	.427	.48
December.....	43,900	2,860	12,000	1.64	1.89
January.....	12,700	3,320	6,570	.900	1.04
February.....	29,500	3,110	9,380	1.28	1.39
March.....	18,900	3,520	9,540	1.31	1.51
April.....	33,000	3,440	13,300	1.82	2.03
May.....	47,000	5,420	13,300	1.82	2.10
June.....	13,900	3,960	8,330	1.14	1.27
July.....	18,900	4,080	10,100	1.38	1.59
August.....	200,000	4,400	30,000	4.11	4.73
September.....	50,300	4,060	14,500	1.99	2.22
The year.....	200,000	1,040	11,100	1.52	20.66

BROAD RIVER NEAR BELL, GA.

LOCATION.—Staff gage at Elberton & Eastern Railroad bridge $1\frac{1}{2}$ miles below Long Creek and 1 mile southeast of Bell, Elbert County. Zero of gage is 355.18 feet above mean sea level.

DRAINAGE AREA.—1,440 square miles.

RECORDS AVAILABLE.—November, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 35,300 second-feet Aug. 16 (gage height, 28.1 feet); minimum, 325 second-feet Oct. 7 and 8 (gage height, 3.25 feet).

1926–1928: Maximum discharge, that of Aug. 16, 1928; minimum, that of Oct. 7 and 8, 1927.

REMARKS.—Records collected by Alabama Power Co. under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1.....	380	410	470	3,660	1,770	1,120	1,540	1,540	1,380	1,310	1,770
2.....	380	410	2,320	2,240	1,770	1,090	1,230	1,460	1,640	940	1,310
3.....	380	410	8,100	2,000	1,230	1,090	1,160	1,460	2,000	870	1,090
4.....	380	410	8,200	1,700	1,230	1,090	1,160	1,160	1,770	800	905
5.....	380	410	3,020	1,230	1,160	1,620	1,090	1,160	2,680	800	2,160
6.....	380	410	1,700	1,160	1,090	1,010	1,050	1,160	2,410	1,090	2,580
7.....	325	410	1,230	1,160	1,090	1,120	1,050	3,840	1,460	1,770	2,160
8.....	325	380	2,160	1,160	1,160	1,090	1,160	6,820	1,280	1,380	1,380
9.....	1,460	380	2,240	1,460	1,380	1,310	1,160	5,700	1,160	1,160	870
10.....	1,620	380	1,460	2,410	1,160	2,240	2,080	2,940	1,090	3,120	905
11.....	905	380	1,120	1,700	1,090	4,400	4,400	2,080	1,050	2,680	5,100
12.....	700	380	1,090	1,230	1,090	3,120	5,900	1,540	1,050	2,160	3,200
13.....	700	380	1,090	1,230	1,090	1,930	3,660	1,380	2,940	1,380	1,160
14.....	1,230	380	1,090	1,160	1,540	1,770	1,930	1,310	1,640	4,400	3,480
15.....	835	410	1,540	1,120	1,540	2,000	3,760	1,310	1,630	1,700	8,730
16.....	770	440	9,280	1,090	1,700	1,700	6,410	1,310	2,680	1,090	24,600
17.....	665	530	8,200	1,050	1,540	1,770	5,100	1,310	1,700	905	25,800
18.....	630	700	6,820	1,050	2,160	4,600	2,000	1,310	1,090	800	17,700
19.....	630	700	3,660	1,050	1,850	3,480	1,930	1,310	1,310	1,770	-----
20.....	630	595	1,620	1,050	1,380	2,460	1,770	5,300	1,090	1,160	-----
21.....	595	560	1,160	905	1,310	1,770	1,930	2,320	1,050	1,050	-----
22.....	560	560	1,160	905	1,700	1,540	3,200	2,240	905	1,380	-----
23.....	560	560	1,160	905	4,210	1,380	5,900	4,600	2,000	1,090	-----
24.....	500	560	1,160	905	3,660	1,310	5,700	10,300	1,930	1,090	-----
25.....	470	560	1,160	1,700	2,240	1,310	2,580	6,300	1,850	1,160	-----
26.....	410	560	1,160	1,460	1,540	1,540	2,000	2,490	1,850	4,900	-----
27.....	410	530	1,160	1,160	1,620	1,540	2,080	1,850	1,640	8,300	-----
28.....	410	530	1,160	1,090	1,310	1,380	2,580	1,540	1,380	4,400	-----
29.....	410	470	1,160	1,160	1,160	1,310	1,850	1,460	1,380	1,930	-----
30.....	410	470	1,160	1,160	-----	1,380	1,540	1,460	1,380	1,230	-----
31.....	410	-----	2,160	2,680	-----	2,080	-----	1,380	-----	1,090	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	1,620	325	608	0.422	0.49
November.....	700	380	475	.330	.37
December.....	9,280	470	2,590	1.80	2.08
January.....	3,660	905	1,420	.986	1.14
February.....	4,210	1,090	1,610	1.12	1.21
March.....	4,600	1,010	1,810	1.26	1.45
April.....	6,410	1,050	2,630	1.83	2.04
May.....	10,300	1,160	2,620	1.82	2.10
June.....	2,940	905	1,610	1.12	1.25
July.....	8,300	800	1,900	1.32	1.52
August 1–18.....	25,800	870	5,830	4.05	2.71

ST. MARYS RIVER BASIN

NORTH PRONG OF ST. MARYS RIVER AT MONIAC, GA.

LOCATION.—Staff gage 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.—240 square miles.

RECORDS AVAILABLE.—January, 1921, to December, 1923; January, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 6,060 second-feet Sept. 19 (gage height, 16.7 feet); minimum, 0.03 second-foot Nov. 29 to Dec. 2 (gage height, 0.93 foot).

1921-1923, 1927-28: Maximum discharge, that of Sept. 19, 1928; no flow June 16-24, and 28, 1921, and May 19 to June 9, 1927.

REMARKS.—Records good except those for extremely high and low stages, which are fair. Discharge estimated Sept. 18-20. Diversion by pumping from river just above control; amount is small, but during extremely low stages entire flow of stream is utilized and no water passes control.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	0.11	0.03	8.3	4.1	118	295	805	74	350	164	111
2	12	.11	.03	8.8	3.9	97	250	635	62	295	148	104
3	14	.09	.03	8.8	3.3	86	210	490	53	515	125	97
4	14	.11	1.40	8.8	3.1	74	180	415	48	945	164	111
5	13	.11	2.80	8.3	2.9	68	156	850	43	1,180	156	140
6	12	.11	2.60	8.0	2.6	59	172	280	40	1,100	156	220
7	10	.11	2.80	7.8	2.4	50	118	280	62	875	172	870
8	8.80	.07	3.90	6.3	2.3	48	97	295	59	605	172	440
9	8.80	.05	4.10	6.6	2.3	43	83	280	48	490	156	415
10	8.30	.04	4.10	6.6	2.3	59	148	240	40	515	190	370
11	7.80	.04	4.50	6.0	2.0	125	1,180	210	38	1,260	250	310
12	7.30	.03	4.70	5.8	1.4	240	1,100	172	31	1,660	280	290
13	7.80	.03	4.90	5.3	2.3	250	945	164	38	1,610	350	260
14	5.80	.03	4.90	5.1	9.3	230	770	156	53	1,520	440	220
15	4.50	.04	4.70	4.9	8.6	210	875	156	56	1,520	515	190
16	4.10	.03	5.60	4.5	10	210	1,480	140	71	1,340	515	172
17	3.90	.04	8.00	4.1	13	605	1,300	132	104	1,100	465	1,520
18	3.50	.04	8.30	4.1	18	910	1,100	104	97	1,060	465	5,500
19	3.10	.04	8.30	3.9	17	700	875	90	86	1,100	440	6,000
20	2.30	.04	7.80	8.7	16	575	665	77	74	1,220	390	5,200
21	1.60	.03	7.60	3.3	14	440	515	80	65	1,020	370	4,380
22	1.00	.03	7.00	2.9	14	370	415	104	80	805	350	3,680
23	.82	.03	6.00	2.6	14	330	770	164	83	635	350	2,790
24	.52	.03	4.70	2.9	71	280	910	156	77	465	250	2,790
25	.30	.03	4.10	2.9	90	250	1,100	125	86	390	230	2,540
26	.30	.03	3.70	3.1	140	440	805	111	172	310	190	2,240
27	.30	.03	3.70	4.7	156	635	945	90	310	265	190	1,890
28	.30	.03	3.70	5.8	156	545	1,380	74	390	220	172	1,700
29	.30	.03	3.30	5.3	140	440	1,220	68	390	180	164	1,940
30	.26	.03	3.10	4.5	---	370	980	97	390	148	148	1,790
31	.16	---	4.10	4.1	---	350	---	90	---	156	125	---

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	14	0.16	5.45	0.023	0.03
November	11	.03	.082	.00022	.0002
December	8.8	.03	4.84	.015	.02
January	8.8	2.6	5.41	.023	.03
February	156	1.4	31.8	.182	.14
March	910	43	297	1.24	1.43
April	1,480	83	701	2.92	3.26
May	805	68	214	.892	1.08
June	390	31	107	.446	.50
July	1,690	148	802	3.34	3.85
August	515	125	266	1.11	1.28
September	6,000	97	1,690	6.62	7.39
The year	6,000	.03	334	1.39	18.96

ST. MARYS RIVER NEAR MACCLENNEY, FLA.

LOCATION.—Staff gage at Stokes Bridge, 1 mile below junction of North and South Prongs and 6 miles northeast of Macclenny, Baker County. Zero of gage is 40.00 feet above mean sea level.

DRAINAGE AREA.—720 square miles.

RECORDS AVAILABLE.—October, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 16,500 second-feet Sept. 20 (gage height, 21.9 feet); minimum, 24 second-feet Nov. 15 and Nov. 27 to Dec. 2. 1926–1928: Maximum discharge, that of Sept. 20, 1928; minimum, 14 second-feet June 4 and 5, 1927 (gage height, 0.04 foot).

REMARKS.—Records good. Discharge estimated Sept. 20. Small diversion at Moniac, Ga., during extremely low stages.

Daily and monthly discharge, in second feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	86	26	24	36	37	295	1,430	4,610	980	980	705	485
2.....	82	26	24	37	36	265	1,280	3,820	745	1,300	705	485
3.....	90	27	25	49	36	220	1,100	3,150	745	1,070	565	400
4.....	86	37	37	49	36	200	955	2,520	645	2,370	545	340
5.....	86	37	56	46	33	190	830	2,090	545	2,520	625	370
6.....	82	36	56	43	33	180	705	1,730	465	2,330	665	485
7.....	78	31	43	43	33	170	605	1,500	415	2,170	585	980
8.....	78	29	42	43	32	160	465	1,330	400	1,940	565	1,330
9.....	70	28	37	42	31	150	430	1,260	370	1,640	525	1,300
10.....	66	27	36	42	31	140	400	1,160	310	1,430	565	1,150
11.....	63	27	36	42	31	160	785	1,000	265	1,460	830	1,000
12.....	60	26	36	39	30	295	1,940	830	260	2,090	1,230	805
13.....	60	25	36	39	30	430	2,700	665	280	2,910	1,280	745
14.....	56	25	35	38	56	445	2,770	645	340	3,420	1,450	665
15.....	56	24	33	37	56	400	2,470	625	455	4,040	1,830	585
16.....	49	26	33	37	82	370	3,070	525	430	4,040	2,210	545
17.....	49	28	37	36	74	370	5,210	505	625	3,930	2,330	525
18.....	46	28	40	36	78	980	5,080	505	645	3,620	2,330	11,300
19.....	43	28	42	34	74	1,530	4,490	430	665	3,420	2,260	14,000
20.....	41	28	42	33	74	1,670	3,520	385	415	3,150	2,090	16,600
21.....	39	26	40	36	70	1,500	3,150	340	340	3,070	1,910	14,000
22.....	38	26	40	33	68	1,360	2,770	370	280	2,910	1,730	11,700
23.....	37	26	37	32	60	1,180	2,470	325	260	2,420	1,530	10,860
24.....	36	25	37	35	74	980	3,390	665	260	2,010	1,360	9,080
25.....	33	25	37	33	210	830	5,690	665	250	1,700	1,130	8,080
26.....	33	25	37	36	445	805	5,210	585	400	1,430	785	8,080
27.....	31	24	36	37	430	1,430	3,420	505	725	1,000	685	7,060
28.....	30	24	36	39	370	1,880	4,850	445	1,000	880	645	6,240
29.....	30	24	38	42	340	1,940	5,720	400	1,200	665	625	6,240
30.....	28	24	36	39	-----	1,760	5,330	415	1,130	585	625	6,240
31.....	28	-----	36	38	-----	1,680	-----	1,030	-----	585	625	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	90	28	54.5	0.076	0.09
November.....	37	24	27.3	.038	.04
December.....	56	24	37.4	.062	.06
January.....	49	32	38.7	.054	.06
February.....	445	30	104	.144	.16
March.....	1,940	140	770	1.07	1.23
April.....	5,720	400	2,780	3.82	4.26
May.....	4,610	340	1,140	1.58	1.52
June.....	1,300	250	523	.726	.61
July.....	4,040	585	2,180	3.03	2.49
August.....	2,830	525	1,150	1.60	1.84
September.....	16,600	340	4,720	6.56	7.22
The year.....	15,600	24	1,120	1.56	21.18

SUWANNEE RIVER BASIN

SUWANNEE RIVER AT FARGO, GA.

LOCATION.—Staff gage at Georgia Southern & Florida Railway bridge at Fargo, Clinch County, 12 miles below Nixons Ferry dam site. Zero of gage is 92.90 feet above mean sea level.

DRAINAGE AREA.—1,050 square miles.

RECORDS AVAILABLE.—January, 1921, to September, 1923; January, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 12,200 second-feet Sept. 30 (gage height, 18.3 feet); minimum, 2.1 second-feet Nov. 16 (gage height, -0.46 foot.)

1927-28: Maximum discharge, that of Sept. 30, 1928; minimum, that of Nov. 16, 1927.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	37	7.2	6.5	43	43	140	1,970	4,560	1,360	1,700	1,580	3,750
2.....	35	6.5	7.0	41	42	199	1,900	5,210	1,260	1,580	1,580	3,540
3.....	37	7.0	8.6	38	41	199	1,900	4,820	1,210	1,520	1,520	3,140
4.....	36	6.5	19	41	38	190	1,830	4,440	1,210	1,580	1,520	2,960
5.....	34	5.8	20	44	40	199	1,830	4,200	1,160	1,640	1,580	2,780
6.....	33	6.0	19	46	43	199	1,760	4,200	1,000	1,580	1,580	2,600
7.....	35	7.0	17	46	45	199	1,700	4,560	865	1,520	1,640	2,430
8.....	34	7.0	15	43	46	199	1,700	4,560	865	1,460	1,640	2,270
9.....	46	6.5	16	42	43	190	1,640	4,440	930	1,520	1,700	2,120
10.....	41	5.8	17	41	42	199	1,580	4,200	930	1,580	1,760	2,190
11.....	40	5.0	19	39	39	199	1,700	3,970	965	1,640	1,830	2,270
12.....	39	4.6	21	36	36	199	1,830	3,750	1,000	1,700	1,900	2,270
13.....	36	3.8	23	39	38	208	1,830	3,440	1,080	1,760	1,970	2,190
14.....	38	3.2	24	41	41	208	1,970	3,340	1,040	1,830	1,900	2,120
15.....	36	2.6	28	43	44	216	2,040	3,140	965	1,970	1,970	2,120
16.....	33	2.1	33	41	43	216	2,120	2,600	670	2,040	2,040	2,190
17.....	30	13	38	38	41	224	2,120	2,430	755	2,120	2,120	2,350
18.....	27	11	43	38	39	394	2,040	2,350	805	2,270	2,120	2,780
19.....	24	9.6	44	43	42	610	2,040	2,520	930	2,270	3,340	3,240
20.....	21	8.2	41	45	43	625	1,970	1,520	965	2,190	4,320	3,640
21.....	17	7.2	39	48	49	625	1,970	1,580	1,000	2,120	4,560	4,440
22.....	15	6.5	35	47	52	670	2,040	1,640	1,120	2,040	4,820	5,470
23.....	15	5.5	32	45	60	690	2,120	1,700	1,120	2,120	4,950	9,400
24.....	15	4.6	36	43	76	690	2,040	1,640	1,120	1,970	4,820	9,700
25.....	15	4.0	41	40	148	710	2,040	1,640	1,080	1,900	4,690	9,860
26.....	15	3.2	43	37	148	1,360	2,040	1,580	1,040	1,830	4,560	10,000
27.....	15	3.6	42	36	148	1,580	2,270	1,580	1,040	1,760	4,440	10,300
28.....	12	4.2	39	38	148	1,640	2,680	1,520	1,080	1,700	4,320	10,400
29.....	11	5.0	41	41	140	1,700	3,240	1,520	1,120	1,640	4,320	10,900
30.....	9.2	5.8	41	44	-----	1,830	3,750	1,460	1,160	1,640	4,200	12,100
31.....	8.2	-----	43	46	-----	2,040	-----	1,400	-----	1,580	3,970	-----

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	46	8.2	27.1	0.026	0.03
November.....	13	2.1	5.93	.0056	.006
December.....	44	6.5	28.7	.027	.03
January.....	48	36	41.7	.040	.05
February.....	148	36	62.0	.059	.06
March.....	2,040	140	598	.57	.68
April.....	3,750	1,580	2,060	1.96	2.19
May.....	5,220	1,460	2,950	2.81	3.24
June.....	1,580	670	1,030	.981	1.06
July.....	2,270	1,460	1,790	1.70	1.96
August.....	4,950	1,520	2,880	2.74	3.16
September.....	12,100	2,120	4,850	4.62	5.15
The year.....	12,100	2.1	1,360	1.30	17.63

SUWANNEE RIVER AT WHITE SPRINGS, FLA.

LOCATION.—Staff gage at highway bridge in White Springs, Hamilton County, 500 feet upstream from large spring (White Springs).

DRAINAGE AREA.—2,160 square miles.

RECORDS AVAILABLE.—May, 1906, to December, 1908; February, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 20,600 second-feet Sept. 30 (gage height, 33.9 feet); minimum, 17 second-feet Nov. 15 (gage height, 1.81 feet). 1906–1908, 1927–28: Maximum discharge, that of Sept. 30, 1928; minimum, 12 second-feet June 5–8, 1927.

REMARKS.—Records good except those for May 28 to Aug. 10, which are fair.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	165	32	30	116	55	525	4,990	12,600	2,180	2,620	2,770	8,180
2.....	165	33	26	117	55	525	4,840	12,200	2,100	2,620	2,580	7,900
3.....	158	32	33	117	54	495	4,660	11,800	1,810	2,620	2,400	7,640
4.....	145	30	49	117	52	465	4,540	11,000	1,740	3,880	2,400	7,370
5.....	135	27	62	117	50	435	4,400	10,600	1,590	3,690	2,290	7,140
6.....	117	25	69	114	49	405	4,280	10,300	1,420	3,060	2,180	6,990
7.....	112	25	73	110	48	405	3,950	10,000	1,380	2,990	2,030	6,690
8.....	110	24	78	106	46	405	3,800	9,550	1,320	2,920	1,950	6,380
9.....	108	23	83	100	46	405	3,580	9,070	1,240	2,920	2,100	6,000
10.....	106	22	96	98	46	435	3,730	8,720	1,140	2,920	4,250	5,620
11.....	102	21	106	91	44	685	6,320	8,490	1,040	2,950	5,700	5,240
12.....	98	20	106	83	43	1,070	7,100	8,130	1,000	3,400	5,930	4,880
13.....	98	20	98	76	52	1,180	6,840	7,800	895	4,030	6,350	4,560
14.....	95	18	87	73	66	1,140	6,250	7,390	1,040	4,510	6,840	4,410
15.....	91	18	83	69	73	1,040	6,910	6,910	1,380	4,910	7,680	4,180
16.....	91	23	80	66	83	1,100	8,020	6,390	1,600	5,210	7,830	3,990
17.....	87	35	73	59	93	1,520	8,330	5,800	1,810	5,510	7,900	3,880
18.....	88	49	80	55	104	2,510	8,370	5,320	1,930	5,650	8,060	5,210
19.....	80	57	104	52	112	2,770	8,410	4,840	2,180	5,650	8,280	11,200
20.....	76	59	125	49	98	2,800	8,530	4,170	2,250	5,650	8,400	12,100
21.....	73	55	123	52	87	2,770	8,620	3,360	2,210	5,580	8,600	12,300
22.....	66	52	117	54	80	2,840	8,770	3,100	2,250	5,360	8,730	12,500
23.....	60	49	114	52	76	2,800	9,020	3,060	2,180	5,210	8,780	13,900
24.....	54	49	110	49	155	2,840	10,000	2,990	2,030	4,990	8,990	16,700
25.....	49	48	106	52	330	2,920	10,400	2,950	1,990	4,880	9,050	18,500
26.....	46	46	98	55	435	3,880	10,600	2,880	2,100	4,730	8,990	19,400
27.....	40	44	95	59	495	5,840	11,100	2,800	2,470	4,400	8,880	19,600
28.....	33	43	95	62	555	5,800	12,000	2,730	2,920	3,800	8,730	19,900
29.....	30	40	89	62	555	5,430	12,600	2,690	3,060	3,470	8,600	19,900
30.....	25	36	83	60	-----	5,320	13,000	2,580	2,660	3,140	8,930	20,300
31.....	25	-----	87	59	-----	4,990	-----	2,400	-----	2,920	8,360	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	165	25	87.8	0.041	0.05
November.....	59	13	35.2	.016	.02
December.....	125	26	85.7	.040	.06
January.....	117	49	77.5	.036	.04
February.....	555	43	139	.064	.07
March.....	5,840	405	2,120	.981	1.13
April.....	13,000	3,580	7,470	3.46	3.86
May.....	12,600	2,400	6,540	3.03	3.49
June.....	3,060	895	1,830	.847	.94
July.....	5,650	2,620	4,070	1.88	2.17
August.....	9,050	1,950	6,280	2.91	3.36
September.....	20,300	3,880	10,200	4.72	5.27
The year.....	20,300	18	3,240	1.50	20.45

SUWANNEE RIVER AT ELLAVILLE, FLA.

LOCATION.—Staff gage at Ellaville, Madison County, 200 feet above Seaboard Air Line Railway trestle and 200 feet below Withlacoochee River.

DRAINAGE AREA.—6,840 square miles.

RECORDS AVAILABLE.—January, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 73,000 second-feet Aug. 20 (gage height, 37.1 feet); minimum, 1,120 second-feet Nov. 21 to Dec. 1.

1927-28: Maximum discharge that of Aug. 20, 1928; minimum, that of Nov. 21 to Dec. 2, 1927.

REMARKS. Records good except those for June 1 to July 15, which are fair.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	1,660	1,220	1,120	1,660	2,030	8,140	18,200	36,500	9,550	7,660	11,200	38,600
2.....	1,540	1,220	1,120	1,660	2,030	8,860	17,800	40,200	9,280	7,580	10,600	36,700
3.....	1,540	1,220	1,180	1,660	2,030	9,640	17,200	42,500	8,940	7,500	10,200	35,000
4.....	1,540	1,220	1,180	1,660	2,030	10,200	16,700	42,800	8,620	7,410	9,620	33,200
5.....	1,430	1,220	1,220	1,660	1,900	10,600	16,000	42,200	8,300	7,500	8,940	31,600
6.....	1,430	1,220	1,220	1,900	1,900	10,800	15,300	41,200	7,980	7,320	8,940	30,300
7.....	1,430	1,180	1,220	2,030	1,900	10,800	14,400	40,000	7,660	6,980	8,940	29,100
8.....	1,430	1,180	1,220	2,180	1,900	10,600	13,500	38,400	7,410	6,660	8,860	28,000
9.....	1,430	1,180	1,180	2,550	1,780	10,000	12,600	36,900	7,230	6,600	8,860	27,300
10.....	1,430	1,180	1,180	2,680	1,780	9,550	12,200	35,000	6,960	7,660	8,460	26,700
11.....	1,430	1,180	1,180	2,940	1,780	9,190	13,600	33,200	6,780	7,980	14,200	26,600
12.....	1,540	1,180	1,220	3,200	1,780	9,100	15,600	31,400	6,500	8,140	18,600	26,200
13.....	1,540	1,180	1,220	3,200	1,780	9,370	15,600	29,600	6,300	8,300	22,700	26,000
14.....	1,540	1,120	1,220	3,200	1,780	9,730	17,000	28,000	6,200	9,370	26,200	25,900
15.....	1,540	1,120	1,220	3,070	1,780	10,000	17,800	26,000	6,100	10,000	30,500	25,900
16.....	1,540	1,120	1,220	3,070	1,900	10,200	18,400	24,500	6,100	10,800	33,200	25,700
17.....	1,430	1,180	1,280	2,940	2,030	10,800	19,800	22,900	6,200	11,700	40,000	25,900
18.....	1,430	1,180	1,280	2,940	2,030	11,600	21,100	21,300	6,300	12,400	51,300	26,600
19.....	1,430	1,180	1,320	2,940	2,160	12,700	21,900	19,400	6,400	13,100	65,400	27,800
20.....	1,320	1,180	1,320	2,810	2,260	13,600	22,300	17,900	6,400	13,700	72,200	28,500
21.....	1,320	1,120	1,320	2,680	2,420	14,500	22,700	16,300	6,400	14,200	72,200	29,400
22.....	1,320	1,120	1,320	2,680	2,550	15,300	22,700	15,100	6,400	14,600	69,000	30,100
23.....	1,320	1,120	1,320	2,550	2,810	16,200	22,800	14,400	6,300	15,200	66,100	31,000
24.....	1,320	1,120	1,320	2,420	3,460	16,600	23,300	13,600	6,200	15,300	63,400	31,900
25.....	1,320	1,120	1,430	2,420	4,320	16,800	23,800	12,800	6,100	15,300	59,600	32,200
26.....	1,280	1,120	1,540	2,290	5,260	17,300	24,200	12,000	6,100	15,300	56,200	34,600
27.....	1,280	1,120	1,540	2,290	6,000	18,800	25,000	11,400	6,500	15,200	51,800	35,900
28.....	1,280	1,120	1,660	2,160	6,600	19,600	26,900	10,800	6,960	14,800	47,600	37,200
29.....	1,220	1,120	1,660	2,160	7,320	19,700	29,800	10,400	7,410	14,000	45,000	38,400
30.....	1,220	1,120	1,660	2,160	-----	19,400	32,600	10,100	7,580	12,800	43,000	39,600
31.....	1,220	-----	1,660	2,160	-----	19,000	-----	9,910	-----	11,800	40,800	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	1,660	1,220	1,410	0.206	0.24
November.....	1,220	1,120	1,160	.170	.19
December.....	1,660	1,120	1,310	.192	.22
January.....	3,200	1,660	2,450	.358	.41
February.....	7,320	1,780	2,740	.400	.43
March.....	19,700	8,140	12,900	1.88	2.17
April.....	32,600	12,200	19,700	2.88	3.21
May.....	42,800	9,910	25,400	3.71	4.26
June.....	9,550	6,100	7,040	1.03	1.15
July.....	15,300	6,600	10,900	1.59	1.83
August.....	72,200	8,860	35,000	5.12	5.90
September.....	39,600	25,700	30,800	4.50	5.03
The year.....	72,200	1,120	12,600	1.84	25.06

SUWANNEE RIVER BASIN

87

SUWANNEE RIVER AT LURAVILLE, FLA.

LOCATION.—Staff gage at highway bridge 1 mile south of Luraville, Suwannee County, and 3 miles above Grants Ferry Shoals. A large spring discharges into river 500 feet above bridge on left bank.

DRAINAGE AREA.—7,360 square miles.

RECORDS AVAILABLE.—February, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 66,000 second-feet Aug. 24 (gage height, 33.7 feet); minimum, 1,630 second-feet Nov. 30 to Dec. 7.

1927-28: Maximum discharge, that of Aug. 24, 1928; minimum, that of Nov. 30 to Dec. 7, 1927.

REMARKS.—Records good below 10,000 second-feet; fair between 10,000 and 35,000 second-feet; subject to error above 35,000 second-feet.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	2,190	1,790	1,630	2,110	2,550	6,670	17,290	25,900	12,100	8,650	13,500	41,000
2.....	2,190	1,790	1,630	2,110	2,460	7,440	17,000	27,400	11,700	8,430	12,900	37,600
3.....	2,110	1,790	1,630	2,110	2,460	8,210	16,700	29,200	11,400	8,320	12,400	34,900
4.....	2,030	1,710	1,630	2,110	2,370	8,870	16,500	30,800	10,900	8,210	11,800	33,300
5.....	2,030	1,710	1,630	2,110	2,370	9,450	16,300	32,200	10,500	8,320	11,400	31,600
6.....	2,030	1,710	1,630	2,190	2,370	9,810	15,900	32,900	10,000	8,210	11,000	30,600
7.....	2,030	1,710	1,630	2,280	2,280	10,000	15,500	33,700	9,690	7,990	10,800	29,400
8.....	2,030	1,710	1,710	2,370	2,280	10,000	14,800	33,500	9,330	7,770	10,500	28,400
9.....	2,030	1,710	1,710	2,550	2,280	9,810	14,100	32,900	8,870	7,550	10,300	27,700
10.....	2,030	1,710	1,710	2,730	2,190	9,570	13,700	31,900	8,650	7,660	10,800	27,000
11.....	1,950	1,710	1,710	3,000	2,190	9,330	13,800	31,200	8,430	8,100	12,500	26,400
12.....	1,950	1,710	1,710	3,180	2,190	9,090	14,600	30,100	7,990	8,430	15,400	26,000
13.....	2,030	1,710	1,710	3,270	2,190	9,090	15,500	29,200	7,880	8,870	17,900	25,600
14.....	2,030	1,710	1,710	3,450	2,190	9,210	15,600	28,200	7,660	9,570	20,300	25,400
15.....	2,030	1,710	1,710	3,360	2,190	9,570	16,400	26,800	7,550	10,800	22,400	25,300
16.....	2,030	1,710	1,710	3,270	2,190	9,810	16,800	25,600	7,440	11,000	24,400	25,000
17.....	1,950	1,710	1,710	3,270	2,280	10,000	17,500	24,600	7,330	11,700	26,400	23,400
18.....	1,950	1,710	1,710	3,270	2,370	10,500	18,400	23,400	7,330	12,500	28,800	25,000
19.....	1,950	1,710	1,710	3,270	2,370	11,400	19,200	22,200	7,330	13,000	33,100	25,200
20.....	1,950	1,710	1,710	3,180	2,460	12,100	19,600	21,000	7,440	13,700	44,100	25,600
21.....	1,870	1,710	1,710	3,090	2,550	12,800	20,000	19,900	7,440	14,100	55,500	25,900
22.....	1,870	1,710	1,790	3,000	2,730	13,400	20,300	18,880	7,330	14,600	62,800	26,400
23.....	1,870	1,710	1,790	2,910	2,910	14,100	20,600	17,900	7,330	15,100	65,400	26,800
24.....	1,870	1,710	1,790	2,910	3,090	14,600	20,900	17,000	7,220	15,400	66,000	27,400
25.....	1,870	1,710	1,870	2,820	3,650	15,100	21,200	16,300	7,110	15,600	65,400	27,800
26.....	1,870	1,710	1,870	2,730	4,250	15,400	21,400	15,500	7,110	15,600	62,800	28,600
27.....	1,790	1,170	1,950	2,730	5,050	15,900	21,700	14,700	7,110	15,800	60,800	29,000
28.....	1,790	1,710	2,080	2,640	5,450	16,700	22,300	14,100	7,440	15,600	57,900	30,100
29.....	1,790	1,710	2,080	2,640	6,050	17,200	23,200	13,400	7,770	15,400	55,000	31,200
30.....	1,790	1,630	2,110	2,550	-----	17,500	24,400	13,000	8,210	14,800	51,100	31,900
31.....	1,790	-----	2,110	2,550	-----	17,500	-----	12,500	-----	14,100	47,500	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	2,190	1,790	1,960	0.266	0.31
November.....	1,790	1,630	1,720	.284	.26
December.....	2,110	1,630	1,760	.289	.28
January.....	3,450	2,110	2,770	.376	.43
February.....	6,050	2,190	2,830	.385	.42
March.....	17,500	6,670	11,600	1.58	1.62
April.....	24,400	13,700	18,000	2.45	2.73
May.....	33,700	12,500	24,100	3.27	3.77
June.....	12,100	7,110	8,450	1.15	1.26
July.....	15,800	7,550	11,400	1.55	1.79
August.....	66,000	10,300	32,600	4.43	5.11
September.....	41,000	23,400	28,600	3.89	4.24
The year.....	66,000	1,630	11,900	1.62	22.54

SURFACE WATER SUPPLY, 1928, PART II

SANTA FE RIVER NEAR FORT WHITE, FLA.

LOCATION.—Staff gage 2 miles upstream from highway bridge on Willeford-Fort White road, Columbia County, and 15 miles above confluence with Suwannee River. Zero of gage is 27.80 feet above mean sea level.

DRAINAGE AREA.—1,270 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1928.

EXTREMES.—Maximum discharge during year, 4,750 second-feet Aug. 27; minimum, 900 second-feet Jan. 29 to Feb. 27.

REMARKS.—Records good below 2,000 second-feet; fair between 2,000 and 4,000 second-feet; poor above 4,000 second-feet.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	1,110	1,110	970	970	900	970	1,100	3,830	2,090	1,990	1,820	4,550
2.....	1,110	1,110	970	970	900	970	1,080	3,890	2,090	2,090	1,730	4,420
3.....	1,110	1,110	970	970	900	970	1,060	3,840	2,090	2,090	2,190	4,320
4.....	1,110	1,040	970	970	900	970	1,050	3,800	1,820	2,090	2,280	4,200
5.....	1,110	1,040	970	970	900	970	1,050	3,750	1,820	2,190	2,450	4,120
6.....	1,190	1,040	970	970	900	970	1,000	3,720	1,730	2,190	2,450	4,020
7.....	1,190	1,040	970	970	900	970	1,000	3,690	1,650	2,190	2,450	3,900
8.....	1,190	1,040	970	970	900	970	1,000	2,690	1,570	2,090	2,370	3,810
9.....	1,190	1,040	970	970	900	970	1,000	3,690	1,490	2,090	2,450	3,660
10.....	1,190	1,040	970	970	900	970	1,020	3,660	1,420	2,090	2,670	3,560
11.....	1,190	1,040	970	970	900	970	1,040	3,630	1,420	2,090	2,800	3,490
12.....	1,190	1,040	970	970	900	970	1,110	3,560	1,420	2,190	3,210	3,390
13.....	1,190	970	970	970	900	970	1,110	3,460	1,360	2,370	3,480	3,350
14.....	1,110	970	970	970	900	970	1,190	3,380	1,350	2,450	3,680	3,270
15.....	1,110	970	970	970	900	970	1,850	3,270	1,350	2,740	3,800	3,230
16.....	1,110	970	970	970	900	970	1,430	3,150	1,350	2,740	3,860	3,160
17.....	1,110	970	970	970	900	970	1,700	3,030	1,350	2,800	3,920	3,370
18.....	1,110	970	970	970	900	970	2,090	2,890	1,350	2,690	3,960	2,540
19.....	1,110	970	970	970	900	970	2,600	2,830	1,350	2,620	3,980	3,590
20.....	1,110	970	970	970	900	970	2,800	2,580	1,350	2,620	4,020	3,770
21.....	1,110	970	970	970	900	970	2,920	2,510	1,280	2,560	4,120	4,080
22.....	1,110	970	970	970	900	970	2,580	2,360	1,280	2,590	4,250	4,280
23.....	1,110	970	970	970	900	1,040	2,510	2,280	1,280	2,590	4,470	4,570
24.....	1,110	970	970	970	900	1,040	2,510	2,190	1,280	2,510	4,610	4,610
25.....	1,110	970	970	970	900	1,040	2,800	2,100	1,520	2,440	4,670	4,500
26.....	1,110	970	970	970	900	1,040	3,020	2,100	1,520	2,360	4,730	4,480
27.....	1,110	970	970	970	900	1,040	3,290	2,000	1,520	2,280	4,750	4,420
28.....	1,110	970	970	970	970	1,040	3,370	1,910	1,610	2,190	4,740	4,400
29.....	1,110	970	970	900	970	1,040	3,510	1,820	1,790	2,090	4,720	4,400
30.....	1,110	970	970	900	-----	1,110	3,680	1,730	1,890	1,910	4,680	4,380
31.....	1,110	-----	970	900	-----	1,110	-----	1,990	-----	1,820	4,600	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	1,190	1,110	1,130	0.890	1.03
November.....	1,110	970	1,000	.787	.88
December.....	970	970	970	.764	.88
January.....	970	900	963	.763	.87
February.....	970	900	905	.713	.77
March.....	1,110	970	995	.733	.90
April.....	3,680	1,000	1,900	1.50	1.67
May.....	3,890	1,730	2,980	2.35	2.71
June.....	2,090	1,280	1,550	1.22	1.36
July.....	2,800	1,820	2,310	1.82	2.10
August.....	4,750	1,730	3,550	2.80	3.23
September.....	4,610	3,150	3,960	3.12	3.48
The year.....	4,750	900	1,850	1.46	19.88

OCHLOCKONEE RIVER BASIN

OCHLOCKONEE RIVER AT OCHLOCKONEE, FLA.

LOCATION.—Staff gage at highway bridge 100 feet upstream from Seaboard Airline Railway bridge and half a mile west of Ochlockonee, Leon County.

DRAINAGE AREA.—1,050 square miles.

RECORDS AVAILABLE.—June, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 18,800 second-feet Aug. 19 (gage height, 29.0 feet); minimum, 30 second-feet Nov. 6 and 7 (gage height, 8.66 feet).

1926-1928: Maximum discharge, that of Aug. 19, 1928; minimum, 27 second-feet June 5, 1927 (gage height, 8.62 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	49	32	36	502	273	3,060	5,480	6,840	490	1,380	570	2,420
2.....	47	32	39	643	273	3,320	4,610	5,700	470	1,550	490	2,380
3.....	46	33	65	751	257	3,520	3,910	4,740	430	1,730	530	2,420
4.....	47	32	131	707	242	3,200	3,160	4,090	410	1,880	550	2,470
5.....	46	31	184	622	242	2,770	2,660	3,430	375	1,790	570	2,560
6.....	44	30	242	541	242	2,110	2,140	2,820	390	1,430	670	2,820
7.....	42	30	257	483	227	1,630	1,760	2,260	390	900	1,100	3,220
8.....	41	31	227	445	227	1,430	1,550	1,730	345	730	1,250	3,360
9.....	39	33	212	445	242	1,330	1,320	1,400	315	590	1,350	3,600
10.....	38	35	170	521	242	1,280	1,700	1,300	300	1,000	1,460	3,740
11.....	37	34	150	541	242	1,330	2,710	1,380	285	1,350	1,700	3,740
12.....	50	33	131	521	257	1,700	2,920	1,400	300	1,700	2,060	3,740
13.....	56	32	119	521	257	2,220	2,920	1,250	315	1,990	2,520	3,740
14.....	56	32	119	483	289	2,820	3,040	1,080	300	2,560	4,280	3,740
15.....	50	31	119	427	305	3,320	3,580	950	285	2,520	7,300	3,660
16.....	49	31	131	409	373	3,900	4,090	850	240	2,760	10,500	3,500
17.....	48	32	180	391	483	4,250	4,180	790	255	3,040	12,800	3,360
18.....	48	34	164	356	601	4,770	4,180	750	390	3,220	17,900	3,040
19.....	42	33	198	366	685	4,650	4,180	710	590	3,500	18,800	2,610
20.....	39	32	273	339	773	5,200	4,090	650	530	3,820	16,700	2,020
21.....	37	33	356	322	842	5,980	3,820	590	410	3,740	14,700	1,520
22.....	36	34	339	322	912	6,410	3,580	570	315	3,350	11,900	1,250
23.....	36	36	257	305	1,030	5,920	3,660	550	225	2,920	10,800	1,100
24.....	35	37	227	289	1,630	5,070	4,090	490	200	2,660	9,140	1,320
25.....	34	36	227	305	1,880	4,280	4,380	450	210	2,420	7,990	1,580
26.....	34	35	227	305	2,040	3,740	4,890	430	285	2,100	6,840	1,760
27.....	34	34	242	339	2,220	3,580	6,840	375	450	1,350	5,920	1,960
28.....	33	35	242	339	2,460	3,580	10,300	390	670	1,120	4,180	2,100
29.....	32	34	273	322	2,720	5,480	9,370	390	790	875	3,580	2,520
30.....	32	34	305	305	-----	6,840	7,990	430	1,100	690	2,870	2,710
31.....	32	-----	356	273	-----	6,380	-----	510	-----	660	2,610	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	56	32	41.6	0.040	0.05
November.....	37	30	33.0	.031	.03
December.....	356	36	199	.190	.22
January.....	751	273	433	.412	.48
February.....	2,720	227	775	.738	.82
March.....	6,840	1,280	3,710	3.53	4.07
April.....	10,300	1,320	4,100	3.90	4.35
May.....	6,840	375	1,590	1.51	1.74
June.....	1,100	200	402	.383	.43
July.....	3,820	590	1,970	1.88	2.17
August.....	18,800	490	5,920	5.64	6.50
September.....	3,740	1,100	2,670	2.54	2.83
The year.....	18,800	30	1,830	1.74	23.69

OCHLOCKONEE RIVER NEAR BLOXHAM, FLA.

LOCATION.—Staff gage at highway bridge on Tallahassee-Bristol highway 1 mile west of Bloxham, Leon County.

DRAINAGE AREA.—1,660 square miles.

RECORDS AVAILABLE.—June, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 19,900 second-feet Aug. 19 (gage height, 21.4 feet); minimum, 120 second-feet Oct. 31, Nov. 2, 3, 7, 14-16.

1926-1928: Maximum discharge, that of Aug. 19, 1928; minimum, 98 second-feet June 7, 1927.

REMARKS.—Records good prior to Aug. 15, poor thereafter. Possibly slight diurnal regulation caused by operation of small gristmills on tributaries above gage.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	148	125	162	1,070	500	3,470	7,420	9,320	945	1,380	1,610	3,980
2.....	148	120	230	1,190	500	3,410	6,840	8,320	840	1,500	1,370	3,610
3.....	135	120	550	1,280	500	3,470	6,040	7,240	910	1,660	1,220	3,490
4.....	130	125	770	1,310	475	3,590	5,320	6,360	805	1,830	1,190	3,550
5.....	135	130	625	1,160	450	3,590	4,540	5,560	650	1,960	1,160	3,790
6.....	135	130	575	980	425	3,350	3,770	4,840	560	2,010	1,130	3,980
7.....	130	120	550	860	450	2,680	3,470	4,190	590	1,780	1,310	4,400
8.....	130	125	550	800	525	2,010	3,170	3,470	590	1,080	1,640	4,470
9.....	130	125	550	800	575	1,660	2,730	2,780	470	910	1,760	4,610
10.....	130	125	475	980	550	1,500	3,980	2,280	380	1,340	1,850	4,840
11.....	140	125	400	1,010	525	1,660	6,680	2,060	350	2,060	2,170	4,920
12.....	215	125	350	950	500	2,330	7,000	1,960	325	2,580	2,620	4,920
13.....	360	125	330	890	500	2,730	6,840	1,920	312	2,980	2,960	4,790
14.....	310	120	310	838	625	3,170	6,200	1,740	312	3,170	3,980	4,610
15.....	222	120	310	770	650	3,840	6,440	1,500	560	3,350	6,280	4,476
16.....	192	120	350	710	740	4,400	7,690	1,380	770	3,470	8,050	4,330
17.....	170	130	550	680	920	5,480	7,600	1,260	710	3,770	11,400	4,190
18.....	155	140	500	650	1,040	6,440	6,920	1,160	680	4,120	15,100	3,980
19.....	148	140	500	600	1,160	6,760	6,360	1,080	740	4,400	19,600	3,790
20.....	140	140	500	625	1,190	6,920	5,960	1,020	740	4,540	19,000	3,480
21.....	135	130	525	600	1,250	6,760	5,640	945	590	4,680	17,400	2,960
22.....	130	135	550	550	1,250	6,760	5,320	945	440	4,540	15,400	2,420
23.....	130	148	525	550	1,790	6,760	5,960	1,120	325	4,190	13,000	2,170
24.....	120	148	475	550	3,430	6,600	7,240	945	250	3,850	11,200	2,620
25.....	130	148	425	600	4,050	6,360	7,960	805	338	3,430	9,930	3,060
26.....	125	148	425	680	4,190	6,840	7,780	710	840	3,110	8,800	3,160
27.....	125	140	425	650	3,980	6,920	7,420	620	1,080	2,780	7,870	3,060
28.....	125	140	425	650	3,710	8,050	9,000	590	1,080	2,280	6,920	3,110
29.....	125	140	475	600	3,590	7,870	10,500	560	1,190	1,790	6,120	3,310
30.....	125	140	800	550	-----	7,160	10,400	945	1,260	1,430	5,320	3,490
31.....	120	-----	950	550	-----	7,510	-----	1,120	-----	1,400	4,540	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	350	120	154	0.063	0.11
November.....	148	120	132	.080	.09
December.....	950	162	488	.294	.34
January.....	1,310	550	798	.480	.55
February.....	4,190	425	1,380	.831	.90
March.....	8,050	1,500	4,840	2.92	2.37
April.....	10,500	2,730	6,410	3.86	4.31
May.....	9,320	560	2,540	1.53	1.76
June.....	1,260	250	654	.394	.44
July.....	4,680	910	2,690	1.62	1.87
August.....	19,600	1,130	6,840	4.12	4.75
September.....	4,920	2,170	3,780	2.28	2.54
The year.....	19,600	120	2,560	1.54	21.08

APALACHICOLA RIVER BASIN

CHATTANOOCHEE RIVER NEAR VININGS, GA.

LOCATION.—Water-stage recorder at highway bridge 1 mile southeast of Vinings, Cobb County, and 2½ miles above Peach Tree Creek.

DRAINAGE AREA.—1,450 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge during period, 15,700 second-feet Aug. 17 (gage height, 11.40 feet); minimum, 975 second-feet Aug. 6 (gage height, 2.50 feet).

REMARKS.—Records good except those for estimated periods, which are fair. Flow regulated by power plants upstream.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.-----	* 1,900	2,330	11.-----	2,400	3,340	21.-----	3,500	* 1,900
2.-----	* 2,200	* 2,800	12.-----	2,260	1,840	22.-----	2,860	1,840
3.-----	2,480	5,090	13.-----	2,260	2,260	23.-----	2,180	1,900
4.-----	1,650	4,360	14.-----	1,840	2,040	24.-----	2,260	1,840
5.-----	1,840	4,700	15.-----	4,880	* 2,040	25.-----	3,500	1,770
6.-----	1,650	7,160	16.-----	8,900	* 2,050	26.-----	5,280	1,770
7.-----	3,500	8,380	17.-----	14,700	* 2,160	27.-----	2,700	1,710
8.-----	3,100	5,230	18.-----	8,380	* 2,000	28.-----	5,230	* 1,700
9.-----	2,330	4,090	19.-----	4,180	* 2,180	29.-----	3,830	* 1,680
10.-----	1,840	3,420	20.-----	4,000	* 1,960	30.-----	2,860	1,650
						31.-----	2,480	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August.-----	14,700	1,650	3,640	2.51	2.89
September.-----	8,380	1,650	2,900	2.00	2.23

* Estimated.

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CHATTANOOCHEE RIVER AT WEST POINT, GA.

LOCATION.—Water-stage recorder just below Oseligee Creek and 1 mile upstream from West Point, Troup County.

DRAINAGE AREA.—3,300 square miles.

RECORDS AVAILABLE.—July, 1896, to September, 1928.

EXTREMES.—Maximum discharge during year, 30,500 second-feet Apr. 23 (gage height, 14.3 feet); minimum, 632 second-feet Oct. 4 (gage height, 2.06 feet).

1896–1928: 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. Operation of power plants upstream causes some diurnal fluctuation.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1-----	771	996	2,260	10,100	3,300	3,750	8,170	5,490	4,700	4,420	3,750	5,090
2-----	758	1,080	6,290	7,540	4,040	3,570	6,700	5,090	4,700	5,090	4,600	4,890
3-----	745	1,150	13,100	6,290	3,940	3,570	5,490	4,700	5,690	5,090	6,090	5,490
4-----	706	1,280	13,800	4,600	3,940	3,840	4,890	4,420	9,020	4,040	4,130	8,170
5-----	719	1,370	10,800	3,570	3,570	9,460	4,510	4,320	18,800	3,750	3,660	7,750
6-----	797	1,400	8,170	3,030	3,120	10,600	4,320	4,990	12,800	3,940	4,130	12,600
7-----	732	1,420	5,290	3,120	2,940	6,910	5,090	7,960	8,800	4,800	5,290	16,000
8-----	758	1,310	8,170	3,390	3,300	5,490	4,890	9,460	6,700	9,020	4,220	16,800
9-----	982	1,340	7,540	4,130	3,660	6,290	4,600	9,240	5,490	7,960	4,420	12,600
10-----	1,880	1,520	5,290	5,690	3,660	9,910	5,890	9,460	4,800	17,400	3,660	7,960
11-----	1,740	1,490	5,290	6,700	4,040	12,300	8,590	8,170	4,700	18,800	3,480	6,090
12-----	2,680	1,570	4,040	5,490	3,750	11,600	10,600	6,090	4,600	15,400	3,390	5,290
13-----	3,480	1,730	3,210	4,420	3,300	7,960	9,460	5,290	4,510	8,380	3,210	5,600
14-----	2,940	1,600	3,120	3,940	3,480	6,490	8,800	4,700	4,700	15,200	3,840	4,320
15-----	2,940	1,310	3,210	3,660	3,660	6,490	16,000	4,320	7,540	20,700	7,960	4,040
16-----	2,940	1,360	6,090	3,300	4,130	7,330	17,900	4,040	5,690	15,200	14,400	5,690
17-----	1,820	1,420	9,020	3,120	4,510	6,290	12,300	4,040	5,890	8,380	17,400	6,490
18-----	1,400	1,660	10,100	2,850	4,600	8,170	8,170	4,040	5,070	8,170	18,500	4,600
19-----	1,320	1,570	7,540	2,940	4,600	8,590	6,700	4,130	4,320	8,590	21,600	4,320
20-----	1,210	1,940	5,090	2,850	4,040	6,700	8,380	4,990	3,840	6,290	14,400	3,840
21-----	1,210	2,760	4,040	2,940	3,660	6,290	13,800	7,540	3,570	5,490	10,600	3,480
22-----	1,140	1,790	3,570	2,940	4,130	5,290	13,300	11,100	3,390	4,420	7,120	3,300
23-----	1,110	1,570	3,210	2,680	6,700	4,890	26,700	19,900	3,480	4,130	5,490	3,390
24-----	1,040	1,550	3,210	2,680	6,700	4,600	27,000	25,400	5,290	4,890	4,990	3,300
25-----	1,090	1,600	3,120	2,760	7,330	4,890	17,400	22,800	7,750	4,990	6,700	3,210
26-----	1,040	1,540	3,030	2,850	6,910	5,690	10,800	19,000	11,800	6,290	6,910	3,030
27-----	1,040	1,620	2,760	3,030	5,290	7,960	7,960	10,100	8,800	5,690	6,700	2,940
28-----	1,020	1,480	2,760	3,390	4,510	7,120	7,120	6,490	6,910	6,090	5,690	2,940
29-----	1,040	1,500	2,940	3,210	4,130	6,490	6,490	5,690	5,490	6,490	5,290	2,850
30-----	1,070	1,500	3,480	2,680	-----	7,750	5,890	5,290	4,700	6,090	7,330	2,940
31-----	1,040	-----	5,690	2,680	-----	10,100	-----	5,090	-----	4,990	4,700	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October-----	3,480	706	1,390	0.421	0.49
November-----	2,760	996	1,510	.458	.51
December-----	13,800	2,260	5,650	1.71	1.97
January-----	10,100	2,680	3,960	1.20	1.38
February-----	7,330	2,940	4,310	1.31	1.41
March-----	12,300	3,570	6,980	2.12	2.44
April-----	27,000	4,320	9,930	3.01	3.36
May-----	25,400	4,040	8,170	2.48	2.86
June-----	18,800	3,390	6,450	1.95	2.18
July-----	20,700	3,750	8,070	2.45	2.82
August-----	21,600	3,210	7,210	2.18	2.51
September-----	16,800	2,850	5,930	1.80	2.01
The year-----	27,000	706	5,800	1.76	23.94

CHATTAHOOCHEE RIVER AT COLUMBIA, ALA.

LOCATION.—Chain gage at highway bridge in T. 4 N., R. 29 E., 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 to September, 1928.

EXTREMES.—Maximum discharge during period, 30,600 second-feet Aug. 17 (gage height, 22.58 feet); minimum, 4,610 second-feet Sept. 17 (gage height, 5.56 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1		9,510	9,880	11		6,750	17,200	21		27,800	6,990
2		8,310	12,900	12		7,110	12,900	22		24,800	5,490
3		6,390	16,700	13		6,510	10,800	23		15,700	4,940
4		6,150	16,800	14		6,390	9,880	24		9,030	5,380
5		12,500	15,900	15		10,300	8,670	25		6,870	5,600
6		10,100	15,000	16		20,700	6,750	26		10,000	5,280
7		6,150	15,700	17		29,400	4,940	27	6,150	12,500	8,550
8		5,270	22,500	18		28,600	8,670	28	9,510	10,300	12,500
9		5,710	25,900	19		24,600	9,750	29	8,790	11,000	11,300
10		6,040	21,800	20		25,900	8,310	30	8,070	8,670	7,830
								31	10,000	8,550	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July 27-31	10,000	6,150	8,500	1.06	6.20
August	29,400	6,150	12,500	1.55	1.79
September	25,900	4,940	11,500	1.43	1.60

FLINT RIVER NEAR CULLODEN, GA.

LOCATION.—Chain gage at highway bridge $2\frac{1}{2}$ miles above former station, 4 miles above Auchumpkee Creek, and $11\frac{1}{2}$ miles southwest of Culloden, Monroe County.

DRAINAGE AREA.—1,860 square miles.

RECORDS AVAILABLE.—July to September, 1928, at present site. July, 1911, to May, 1923, at site $2\frac{1}{2}$ miles downstream.

EXTREMES.—Maximum discharge during period, 24,600 second-feet Aug. 15 (gage height, 20.6 feet); minimum, 710 second-feet Sept. 30 (gage height, 2.40 feet).

1911-1923; 1928: Maximum discharge, 82,000 second-feet July 9, 1916 (gage height, 33.3 feet); minimum (revised), 125 second-feet Oct. 8, 1911 (gage height, 1.0 foot).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	
1		1,460	2,190	11		4,810	2,190	21		3,550	6,070	770
2		1,250	2,350	12		3,470	1,740	22		2,670	4,360	1,010
3		1,010	3,390	13		1,810	1,600	23		2,110	3,730	890
4		890	4,090	14		5,170	1,530	24		1,600	3,640	890
5		740	5,170	15		18,500	1,400	25		1,460	3,730	890
6		770	6,250	16		21,600	1,390	26		2,590	2,910	890
7		1,390	6,650	17		12,000	1,390	27		3,550	2,590	890
8		1,130	7,850	18		6,850	1,390	28		2,910	2,690	830
9		1,250	7,250	19		6,350	1,250	29		2,190	2,670	770
10		2,030	4,270	20		6,350	890	30		1,880	2,270	740
								31		1,670	2,110	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July 21-31	3,550	1,460	2,380	1.29	0.528
August	21,600	740	4,370	2.36	2.72
September	7,850	740	2,430	1.31	1.46

FLEET RIVER NEAR VIENNA, GA.

LOCATION.—Staff gage at bridge on Americus-Vienna highway 300 feet below Lumpkins or Pennahatchee Creek and 12 miles west of Vienna, Dooly County.

DRAINAGE AREA.—3,400 square miles.

RECORDS AVAILABLE.—November, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 45,500 second-feet Apr. 26 (gage height, 24.4 feet); minimum, 840 second-feet Oct. 8.

REMARKS.—Records good below and fair above 15,000 second-feet.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	875	910	1,180	3,620	2,180	4,060	6,590	15,000	3,730	4,320	3,170	5,180
2	875	910	1,330	4,360	2,180	3,690	6,500	11,000	3,290	3,600	3,110	5,230
3	840	950	1,800	4,920	2,310	3,540	6,420	7,590	3,350	3,170	2,750	5,030
4	875	990	3,060	4,840	2,500	3,330	6,000	5,830	3,290	3,170	2,510	5,100
5	875	990	4,760	4,440	2,570	3,620	5,080	5,100	4,380	3,110	2,450	6,100
6	875	1,040	5,570	3,920	2,440	4,680	4,290	4,640	5,510	2,930	2,390	7,890
7	840	1,040	6,250	3,400	2,440	6,000	3,920	4,440	7,080	3,660	2,390	7,590
8	840	990	7,020	3,060	2,380	6,930	3,620	4,510	8,730	4,580	2,330	7,590
9	875	990	7,570	2,840	2,440	7,470	3,470	4,840	11,000	5,100	2,510	12,200
10	875	1,040	7,780	2,840	2,500	7,780	3,760	5,160	12,600	5,370	2,990	12,600
11	950	1,120	6,160	2,980	2,440	8,360	4,440	5,160	9,890	5,670	5,230	11,200
12	990	1,220	4,290	3,190	2,440	8,750	5,480	5,690	6,010	6,010	7,200	10,600
13	990	1,280	3,540	3,120	2,310	9,170	6,420	4,380	4,120	7,460	7,460	9,210
14	1,040	1,180	3,260	2,980	2,380	9,170	6,930	3,920	4,080	8,140	7,380	6,400
15	1,120	1,120	2,910	2,840	2,380	9,620	7,670	4,060	4,380	9,050	9,380	4,640
16	1,280	1,180	2,980	2,700	2,700	9,470	8,620	3,470	4,700	9,890	16,000	3,920
17	1,380	1,120	3,620	2,640	3,260	8,620	9,030	3,350	4,180	10,100	17,700	3,730
18	1,380	1,180	3,540	2,500	4,520	7,470	9,320	3,230	3,600	11,200	19,900	3,470
19	1,280	1,220	6,080	2,440	5,400	6,930	10,300	3,170	3,470	12,200	26,800	3,470
20	1,120	1,280	6,420	2,500	6,000	6,840	12,300	3,170	3,230	10,800	28,800	3,360
21	1,080	1,220	6,590	2,500	6,080	6,930	13,100	3,230	2,990	9,210	24,100	3,170
22	1,040	1,220	6,250	2,500	5,320	6,590	12,700	3,230	2,750	8,890	19,500	2,990
23	1,040	1,220	4,440	2,380	4,920	5,740	16,500	3,350	2,570	8,890	15,700	2,930
24	950	1,120	3,330	2,310	5,240	5,080	28,800	3,730	2,570	8,430	13,100	3,060
25	990	1,220	2,980	2,380	6,160	4,600	33,500	4,770	3,110	4,580	11,000	3,170
26	950	1,180	2,770	2,500	6,500	5,480	43,100	5,510	4,180	3,600	8,000	3,110
27	950	1,180	2,700	2,570	6,340	6,260	44,100	6,300	4,510	3,170	5,670	2,990
28	910	1,120	2,500	2,570	6,250	6,760	37,600	7,330	4,640	3,410	5,160	2,930
29	910	1,120	2,500	2,440	5,160	6,590	30,100	8,140	4,700	3,800	5,300	2,930
30	950	1,120	2,570	2,310	-----	6,590	20,900	7,460	4,700	3,990	6,510	2,930
31	910	-----	2,910	2,180	-----	6,760	-----	5,030	-----	3,540	5,920	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	1,380	840	994	0.292	0.34
November	1,280	910	1,120	.329	.37
December	7,780	1,180	4,140	1.22	1.41
January	4,920	2,180	2,990	.879	1.01
February	6,590	2,180	3,780	1.11	1.20
March	9,620	3,380	6,540	1.92	2.21
April	44,100	3,470	13,700	4.03	4.59
May	15,000	3,170	5,320	1.56	1.86
June	12,600	2,570	4,900	1.44	1.61
July	12,200	2,930	6,160	1.81	2.09
August	28,800	2,330	9,430	2.77	3.19
September	12,600	2,930	5,490	1.61	1.89
The year	44,100	840	5,380	1.58	21.59

MOBILE RIVER BASIN

COOSAWATTEE RIVER NEAR CARTERS, GA.

LOCATION.—Water-stage recorder at highway bridge 1 mile above Talking Rock Creek and $1\frac{1}{4}$ miles northeast of Carters, Murray County.

DRAINAGE AREA.—376 square miles.

RECORDS AVAILABLE.—September, 1925, to September, 1928.

EXTREMES.—Maximum discharge during year, 15,300 second-feet Mar. 30 (gage height, 12.16 feet); minimum, 233 second-feet Oct. 30 and Nov. 1 (gage height, 1.21 feet).

1925-1928: Maximum discharge, about 16,400 second-feet Apr. 10, 1927 (gage height, 12.40 feet); minimum, 59 second-feet Sept. 22, 1925 (gage height, 0.68 foot).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	265	251	377	1,740	864	551	1,910	1,140	1,040	1,320	979	961
2	251	251	505	1,090	738	531	1,520	1,100	1,250	1,190	943	2,400
3	254	423	1,320	872	659	518	1,320	1,090	1,210	1,120	916	3,800
4	261	396	907	738	629	531	1,220	1,080	1,910	1,100	943	1,690
5	265	294	666	659	607	571	1,170	1,070	1,850	1,110	997	2,700
6	254	294	525	629	629	525	1,130	1,130	1,960	1,190	952	2,880
7	254	283	457	614	614	512	1,420	1,630	1,520	1,130	834	1,010
8	297	322	643	614	970	512	1,210	1,800	1,320	1,210	881	1,680
9	351	738	531	979	925	1,910	1,150	1,470	1,230	1,320	898	1,420
10	309	429	451	952	780	1,690	1,140	1,270	1,140	1,320	1,050	1,320
11	279	348	434	738	721	1,130	1,850	1,160	1,100	1,270	805	1,270
12	545	318	1,130	690	682	962	1,740	1,120	1,120	1,370	763	1,230
13	738	305	1,130	643	651	839	1,370	1,100	1,370	2,020	797	1,190
14	357	290	898	614	659	925	1,470	1,070	2,240	3,780	780	1,140
15	305	279	3,660	593	682	881	1,370	1,030	1,520	1,470	1,580	1,070
16	290	279	4,290	564	666	822	1,230	1,010	1,270	1,250	2,180	1,220
17	279	377	2,130	545	651	805	1,150	979	1,170	1,160	1,420	1,420
18	272	525	1,370	545	643	1,050	1,110	925	1,110	1,170	1,240	1,110
19	265	353	1,070	545	607	907	1,100	1,190	1,150	1,170	1,160	1,030
20	265	322	881	558	585	830	1,630	1,910	1,020	1,130	1,140	997
21	265	309	771	518	578	788	1,320	1,630	970	1,070	1,080	979
22	269	294	690	493	571	738	1,520	1,690	961	1,320	997	970
23	261	294	636	493	822	721	1,580	2,580	997	1,320	643	952
24	261	294	593	531	771	690	1,420	1,800	1,470	1,100	1,070	925
25	258	294	571	771	698	771	1,270	1,420	1,910	1,160	1,100	907
26	269	287	531	629	629	1,740	1,180	1,370	1,470	1,250	1,020	872
27	269	287	512	585	600	1,740	1,270	1,220	1,170	1,370	847	847
28	269	283	505	564	585	1,250	1,280	1,220	1,170	1,150	813	822
29	272	276	659	525	571	1,040	1,160	1,150	1,960	1,100	822	805
30	254	276	666	518	-----	7,950	1,140	1,260	1,800	1,080	822	797
31	264	-----	2,350	690	-----	2,940	-----	1,090	-----	1,020	1,320	-----

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	788	251	301	0.801	0.92
November	788	251	332	.883	.99
December	4,290	377	1,030	2.74	3.16
January	1,740	493	685	1.82	2.10
February	970	571	682	1.81	1.95
March	7,950	512	1,210	3.22	3.71
April	1,910	1,100	1,340	3.56	3.97
May	2,580	925	1,310	3.48	4.01
June	2,240	961	1,380	3.67	4.10
July	3,780	1,020	1,310	3.48	4.01
August	2,180	763	1,040	2.77	3.19
September	3,300	797	1,360	3.62	4.04
The year	7,950	251	999	2.66	36.21

MOBILE RIVER BASIN

97

COOSA RIVER NEAR ROME, GA.

LOCATION.—Water-stage recorder $7\frac{1}{2}$ miles below confluence of Oostanaula and Etowah Rivers and 8 miles below Rome, Floyd County.

DRAINAGE AREA.—4,040 square miles.

RECORDS AVAILABLE.—June to September, 1928.

EXTREMES.—Maximum discharge during period, 23,500 second-feet Sept. 7 (gage height, 19.24 feet); minimum, 2,870 second-feet Sept. 30 (gage height, 1.96 feet).

REMARKS.—Records good. Flow regulated by storage above Mayos Bar Dam.

Daily and monthly discharge, in second-feet, 1927-28

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1-----		8,260	4,470	4,170	16-----		14,700	7,250	4,570
2-----		8,740	4,270	6,150	17-----		7,470	10,500	6,370
3-----		7,030	3,870	12,600	18-----		7,140	7,910	6,040
4-----		5,170	3,970	15,100	19-----		5,490	6,260	4,470
5-----		4,570	3,680	15,700	20-----		4,970	5,380	3,970
6-----		4,270	4,170	20,900	21-----	4,370	5,070	4,970	3,680
7-----		5,070	4,870	23,200	22-----	4,070	7,690	4,570	3,500
8-----		5,710	4,570	21,000	23-----	4,170	10,500	3,870	3,410
9-----		6,590	3,770	14,500	24-----	5,270	8,620	4,670	3,320
10-----		8,740	3,590	7,470	25-----	10,300	5,710	4,270	3,230
11-----		10,500	3,680	5,820	26-----	14,400	7,580	6,370	3,140
12-----		9,700	3,590	5,070	27-----	12,500	9,820	6,040	3,050
13-----		7,360	3,410	4,770	28-----	7,690	7,690	4,570	2,960
14-----		12,800	3,410	4,370	29-----	7,140	6,370	4,570	2,870
15-----		20,600	4,070	4,270	30-----	7,910	5,270	3,870	2,870
					31-----		4,770	3,590	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June 21-30-----	14,400	4,070	7,780	1.93	0.72
July-----	20,600	4,270	7,870	1.95	2.25
August-----	10,500	3,410	4,780	1.18	1.36
September-----	23,200	2,870	7,420	1.84	2.05

COOSA RIVER AT GADSDEN, ALA.

LOCATION.—Water-stage recorder at highway bridge in Gadsden, Etowah County, 700 feet below Louisville & Nashville Railroad bridge. Zero of gage is 485.16 feet above mean sea level.

DRAINAGE AREA.—5,790 square miles.

RECORDS AVAILABLE.—October, 1926, to September, 1928.

EXTREMES.—Maximum discharge during year, 37,800 second-feet Apr. 24 (gage height, 20.8 feet); minimum, 1,540 second-feet Nov. 2 (gage height, 0.65 foot).
1926-1928: Maximum discharge, 41,400 second-feet Dec. 29, 1926 (gage height, 23.6 feet); minimum, that of Nov. 2, 1927.

REMARKS.—Records good. Discharge estimated Oct. 8-12.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	1,640	1,590	2,500	23,200	6,980	7,140	31,600	10,600	7,620	10,600	6,500	4,890
2.....	1,640	1,540	2,790	26,600	8,580	6,500	31,000	9,920	8,260	10,300	6,050	5,760
3.....	1,590	1,590	3,530	25,000	9,580	6,050	28,200	9,240	9,240	10,300	5,450	7,780
4.....	1,590	1,740	6,050	20,500	9,070	6,500	24,400	8,900	12,000	9,410	4,880	13,200
5.....	1,590	1,790	9,750	15,000	7,620	9,240	18,200	8,260	14,300	7,300	4,740	16,300
6.....	1,590	1,940	9,750	9,920	6,660	9,920	11,600	7,460	15,500	6,050	4,600	16,700
7.....	1,640	2,380	7,780	7,480	6,500	8,740	10,600	7,140	16,100	5,600	4,740	19,100
8.....	1,700	2,280	6,660	6,980	6,500	7,460	10,600	7,780	14,600	6,350	5,600	21,200
9.....	1,700	2,000	6,050	7,940	7,460	9,920	10,300	11,600	12,000	7,300	5,600	21,800
10.....	2,200	2,060	5,900	9,410	8,580	18,400	10,100	12,700	9,750	7,940	5,160	18,900
11.....	2,300	2,380	6,050	10,800	9,580	23,400	11,600	10,900	8,740	9,920	4,880	11,800
12.....	2,500	2,970	5,750	11,100	8,580	25,000	18,200	8,900	8,740	11,600	4,740	7,620
13.....	2,610	2,910	5,750	9,580	7,300	21,400	21,600	7,620	8,580	11,600	4,600	6,350
14.....	2,670	2,550	6,660	8,260	6,660	17,000	22,600	8,420	8,260	9,680	4,320	5,750
15.....	3,400	2,220	12,000	7,300	6,660	14,500	24,800	6,350	9,240	11,100	4,180	5,300
16.....	3,660	2,110	25,200	6,500	6,820	13,600	24,800	5,900	12,300	17,400	4,320	5,160
17.....	2,910	4,180	32,000	6,050	6,660	12,900	21,800	5,750	12,700	17,800	6,050	5,300
18.....	2,330	5,160	33,500	5,750	6,500	11,400	17,600	5,600	10,300	12,700	10,100	6,200
19.....	2,000	6,200	81,200	5,450	6,350	11,600	13,600	5,750	7,940	8,740	10,300	7,140
20.....	1,890	6,350	26,600	5,300	5,900	12,300	12,000	6,350	6,980	7,300	8,100	6,050
21.....	1,790	6,350	21,000	5,160	5,600	11,400	17,600	9,240	6,200	8,260	6,320	5,020
22.....	1,790	4,880	14,600	5,020	5,750	9,920	29,000	13,900	5,750	6,980	5,900	4,460
23.....	1,740	3,530	9,070	4,880	7,460	8,580	35,600	17,000	6,050	8,260	5,450	4,820
24.....	1,680	2,910	7,140	4,600	11,300	7,940	37,500	16,600	8,260	12,000	5,020	4,180
25.....	1,680	2,670	6,350	4,880	13,700	7,460	35,200	20,800	15,900	11,300	4,600	4,050
26.....	1,590	2,440	5,750	5,300	13,000	7,940	29,700	22,800	19,700	9,240	5,020	3,920
27.....	1,590	2,330	5,300	5,900	10,900	10,600	22,000	19,900	19,700	8,900	6,660	3,920
28.....	1,590	2,280	5,020	6,350	9,070	10,600	15,700	12,300	17,000	10,900	7,460	3,790
29.....	1,590	2,220	6,660	8,750	7,940	12,300	13,000	9,070	12,700	10,400	6,050	8,660
30.....	1,590	2,160	8,420	5,160	-----	18,200	11,800	8,260	11,100	8,260	6,450	8,530
31.....	1,590	-----	16,400	5,160	-----	26,800	-----	7,940	-----	6,980	5,160	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	3,660	1,590	1,980	0.342	0.39
November.....	6,350	1,540	2,920	.504	.56
December.....	33,500	2,500	11,300	1.950	2.25
January.....	26,600	4,600	9,230	1.590	1.83
February.....	13,700	5,600	8,040	1.390	1.50
March.....	26,800	6,050	12,400	2.140	2.47
April.....	37,500	10,100	20,700	3.580	3.99
May.....	22,800	5,600	10,500	1.810	2.09
June.....	19,700	5,750	11,200	1.930	2.15
July.....	17,800	5,600	9,690	1.670	1.92
August.....	10,300	4,180	5,760	.995	1.15
September.....	21,800	3,530	8,440	1.460	1.63
The year.....	37,500	1,540	9,340	1.610	21.93

MOBILE RIVER BASIN

99

COOSA RIVER AT CHILDERSBURG, ALA.

LOCATION.—Water-stage recorder at Central of Georgia Railway bridge half a mile west of Childersburg, Talladega County. Zero of gage is 421.00 feet above mean sea level.

DRAINAGE AREA.—8,390 square miles.

RECORDS AVAILABLE.—February, 1914, to September, 1928.

EXTREMES.—Maximum discharge during year, 82,900 second-feet Apr. 24 (gage height, 19.8 feet); minimum, 2,140 second-feet Oct. 7 and 8 (gage height, 1.23 feet).

1914-1928: Maximum discharge, 121,000 second-feet July 11, 1916 (gage height, 24.7 feet); minimum, 1,300 second-feet occurred on 10 days in September, 1925.

REMARKS.—Records good. Records collected by Alabama Power Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,280	2,180	3,140	33,200	9,260	10,400	39,900	16,900	9,900	15,000	8,950	7,040
2	2,280	2,180	3,800	35,400	11,100	9,420	42,200	15,400	9,900	13,900	8,200	7,320
3	2,280	2,280	5,600	35,000	11,400	8,650	39,500	13,900	12,800	13,200	8,200	8,050
4	2,280	2,280	6,770	30,500	11,900	8,950	35,400	13,000	15,600	12,800	6,380	9,900
5	2,180	2,280	7,900	24,200	11,300	22,500	30,100	12,300	24,900	11,900	6,900	15,400
6	2,180	2,280	11,100	17,300	9,900	22,800	22,800	11,300	27,900	10,200	6,380	18,500
7	2,180	2,880	11,100	12,100	8,950	18,900	20,000	10,400	24,200	8,800	6,510	18,300
8	2,380	2,590	9,740	10,100	9,260	14,600	18,100	9,900	21,600	12,300	6,640	22,000
9	2,380	2,920	9,100	10,700	9,420	16,100	15,400	10,600	18,500	10,200	7,180	24,200
10	3,080	2,920	7,750	12,100	9,740	25,300	15,000	14,300	16,400	11,600	7,460	24,500
11	3,250	2,810	7,320	12,800	10,700	34,600	16,500	15,400	13,000	13,200	6,900	20,000
12	3,360	2,810	7,750	13,900	11,400	36,800	22,000	13,400	11,900	13,500	6,510	13,000
13	3,250	3,360	8,200	13,500	10,600	34,600	27,900	11,100	11,600	15,000	5,120	9,100
14	3,580	3,580	8,200	11,800	9,420	31,000	34,100	9,740	11,400	14,300	5,860	7,600
15	3,690	3,470	12,300	10,200	8,800	26,900	43,700	8,800	11,100	11,800	5,730	7,040
16	3,800	3,250	34,600	9,260	8,800	23,300	40,900	8,350	12,500	13,900	5,600	6,510
17	4,400	6,770	48,100	8,500	8,800	22,500	35,900	8,200	15,000	20,900	5,600	6,250
18	4,040	8,500	48,100	8,050	8,500	20,000	30,100	7,960	15,000	21,300	7,040	6,250
19	3,470	8,200	46,700	7,600	8,350	17,700	28,800	8,500	12,500	15,000	14,300	6,900
20	3,030	7,900	39,000	7,320	7,900	16,900	25,700	11,100	9,900	10,900	15,000	7,900
21	2,810	7,460	31,900	6,900	7,600	16,500	41,300	10,400	8,650	9,260	11,100	7,040
22	2,700	7,320	24,600	6,770	9,100	15,400	66,200	14,300	8,500	10,600	8,950	6,120
23	2,590	6,250	16,900	6,510	11,400	13,200	78,800	21,300	8,500	9,420	7,460	5,600
24	2,480	5,000	11,400	6,510	14,300	11,900	51,100	23,800	13,700	10,700	7,180	5,480
25	2,380	4,040	9,260	6,250	17,700	11,100	59,500	24,200	33,200	14,600	6,770	5,120
26	2,380	3,690	8,200	6,510	18,100	12,600	54,600	26,200	40,900	16,100	7,040	4,880
27	2,280	3,470	7,460	6,770	16,500	16,100	39,000	27,400	33,200	13,200	6,900	4,760
28	2,280	3,250	7,040	7,040	13,700	16,900	30,100	22,500	28,300	11,800	7,900	4,760
29	2,280	3,140	7,460	7,460	11,400	15,400	22,000	14,600	22,500	13,500	8,800	4,640
30	2,180	3,140	11,400	7,180	-----	24,500	18,900	11,600	17,300	12,500	7,600	4,520
31	2,180	-----	17,700	6,900	-----	35,400	-----	10,400	-----	10,400	7,040	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October	4,400	2,180	2,770	0.330	0.38
November	8,500	2,180	4,060	.484	.54
December	49,100	3,140	15,900	1.89	2.13
January	35,400	6,250	12,800	1.53	1.76
February	18,100	7,600	10,900	1.30	1.40
March	36,800	8,650	19,700	2.35	2.71
April	81,100	15,000	36,000	4.29	4.79
May	27,400	7,900	14,100	1.68	1.94
June	40,900	8,500	17,300	2.06	2.30
July	21,300	8,800	13,000	1.55	1.79
August	15,000	5,600	7,680	.915	1.05
September	24,500	4,520	9,990	1.19	1.33
The year	81,100	2,180	13,700	1.63	22.17

COOSA RIVER AT MITCHELL DAM, NEAR VERBENA, ALA.

LOCATION.—Water-stage recorder in sec. 15, T. 21 N., R. 16 E., half a mile below Mitchell Dam and 6 miles northeast of Verbena. Zero of gage is 270.00 feet above mean sea level.

DRAINAGE AREA.—9,830 square miles.

RECORDS AVAILABLE.—July, 1925, to August, 1928 (discontinued).

EXTREMES.—Maximum discharge during year, 117,000 second-feet Apr. 23 (gage height, 19.2 feet); minimum, 90 second-feet Nov. 2, 3, 8 (gage height, 1.30 feet).

1925-1928: Maximum discharge, 135,000 second-feet Feb. 13, 1927 (gage height, 21.0 feet); minimum, 80 second-feet Aug. 16 and Oct. 4, 1925 (gage height, 1.25 feet).

REMARKS.—Records above 5,000 second-feet good; others fair. Discharge estimated Mar. 15-17 and June 4 and 5. Large diurnal fluctuation caused by operation of Mitchell Dam. Records collected by Alabama Power Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1.....	190	1,150	5,120	27,800	11,400	11,800	45,200	21,400	12,200	19,600	12,600
2.....	2,510	510	7,980	37,900	11,400	10,700	44,700	19,600	12,200	17,400	12,100
3.....	4,610	1,440	10,400	37,700	11,400	7,700	43,900	19,000	11,700	16,600	11,400
4.....	2,840	815	7,800	33,400	11,400	10,600	35,500	19,400	31,500	11,700	10,900
5.....	2,370	935	8,550	25,400	9,850	27,900	34,300	12,600	68,000	15,500	7,180
6.....	2,640	3,650	9,650	21,100	11,800	31,400	27,900	13,100	49,400	11,800	6,100
7.....	1,880	1,290	11,400	18,600	11,700	21,800	28,700	11,800	26,100	12,800	5,480
8.....	660	1,550	10,700	12,900	11,800	21,400	19,800	11,800	26,600	15,800	7,500
9.....	165	4,150	9,230	12,100	11,800	21,200	19,000	11,800	10,800	15,500	9,100
10.....	1,420	945	7,550	12,100	11,800	23,400	21,700	12,100	19,800	15,400	8,260
11.....	3,290	2,930	8,850	15,800	11,800	46,800	21,600	16,300	16,100	16,400	8,350
12.....	2,570	4,130	11,200	14,700	11,200	38,600	24,000	17,800	14,100	15,100	4,990
13.....	3,800	2,780	10,000	19,100	11,400	37,800	27,100	12,800	14,700	15,800	5,850
14.....	2,010	2,980	9,750	17,500	11,800	35,000	51,200	11,400	14,800	17,100	6,430
15.....	2,370	3,490	12,600	13,000	11,800	32,100	61,200	10,800	13,300	14,400	6,120
16.....	6,080	4,540	27,500	11,700	11,600	28,500	44,000	9,100	14,500	14,700	6,040
17.....	5,320	9,780	50,800	11,200	11,000	28,600	40,200	10,100	18,700	19,800	4,630
18.....	3,450	9,550	54,300	11,000	8,800	15,800	34,200	9,760	17,000	20,600	7,750
19.....	3,780	7,990	50,200	11,000	7,900	21,500	28,200	8,000	14,600	18,600	10,100
20.....	3,970	6,570	43,200	10,600	10,200	20,300	45,700	11,000	13,300	11,100	13,100
21.....	2,100	4,600	34,400	5,570	11,500	19,800	78,500	11,400	12,200	10,700	16,800
22.....	2,190	3,530	26,500	3,840	9,800	20,200	100,000	14,200	11,800	8,810	-----
23.....	3,100	5,900	24,000	7,290	11,700	19,100	110,000	21,800	11,800	9,660	-----
24.....	3,720	8,010	14,500	7,140	17,700	11,000	102,000	23,100	13,800	11,500	-----
25.....	2,020	4,900	12,100	6,920	21,400	11,800	74,800	24,000	43,000	11,800	-----
26.....	278	2,330	10,000	7,080	15,800	11,400	58,800	25,500	50,500	23,600	-----
27.....	1,370	291	10,900	4,350	18,900	17,400	48,700	28,500	37,500	14,700	-----
28.....	290	2,660	10,700	6,410	19,300	23,800	35,600	30,000	35,300	12,100	-----
29.....	353	3,740	11,400	6,470	18,000	19,200	20,300	16,500	27,500	10,800	-----
30.....	6,050	5,640	11,000	8,400	-----	30,800	22,200	15,000	22,100	15,800	-----
31.....	3,060	-----	12,200	7,780	-----	41,300	-----	12,300	-----	13,500	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	6,080	165	2,600	0.265	0.31
November.....	9,780	291	3,780	.385	.43
December.....	54,300	5,120	17,600	1.79	2.06
January.....	37,900	3,840	14,400	1.46	1.68
February.....	21,400	7,900	12,600	1.28	1.38
March.....	46,800	7,700	23,300	2.37	2.73
April.....	110,000	19,000	45,000	4.58	5.11
May.....	30,000	8,000	15,900	1.62	1.87
June.....	68,000	10,800	22,800	2.32	2.59
July.....	28,600	8,810	14,800	1.51	1.74
August 1-21.....	16,800	4,630	8,610	.876	.68

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 junction with Tallapoosa River at 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, 1928.

EXTREMES.—Maximum discharge during year, 130,000 second-feet Apr. 23 (gage height, 27.8 feet); minimum, 325 second-feet Oct. 10 (gage height, 3.25 feet). 1912-1914, 1925-1928: Maximum discharge, 138,000 second-feet Feb. 13, 1927 (gage height, 28.8 feet); minimum, 250 second-feet Sept. 20 and 27, 1926.

REMARKS.—Records good below and fair above 30,000 second-feet. Flow almost completely regulated during low and medium stages by hydroelectric plants at Lock 12 and Mitchell Dam. Records collected by Alabama Power Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	2,190	1,270	5,270	24,500	11,900	12,000	45,000	20,300	11,900	19,600	11,700	1,940
2.....	423	964	6,100	38,800	11,900	10,500	47,600	18,400	12,600	16,900	11,500	8,230
3.....	4,280	824	11,200	39,900	11,900	8,110	51,100	17,100	11,200	16,500	10,600	10,100
4.....	2,130	1,580	7,940	34,400	11,900	9,650	41,300	18,000	31,500	9,300	10,000	8,860
5.....	1,920	847	7,820	27,800	10,200	27,100	35,200	11,700	75,000	17,900	7,520	10,700
6.....	2,110	2,650	9,520	22,000	11,600	33,700	28,800	13,300	55,000	11,900	5,900	19,200
7.....	2,000	2,430	11,700	20,000	12,000	23,900	29,600	11,900	30,500	17,600	5,410	20,800
8.....	2,180	782	12,000	13,700	12,300	22,300	20,400	11,900	28,600	17,100	6,890	19,900
9.....	601	4,150	9,200	12,300	12,100	22,200	19,600	11,900	23,100	16,600	9,400	26,600
10.....	347	2,080	7,350	12,300	11,900	26,900	22,400	11,900	19,900	15,300	7,050	32,100
11.....	2,410	2,030	7,920	15,400	11,900	46,200	21,100	16,200	15,600	16,900	8,440	26,300
12.....	3,270	4,620	11,300	14,300	11,200	40,900	21,600	18,300	13,100	15,000	5,180	18,800
13.....	3,570	2,570	10,600	18,300	11,500	39,200	24,800	13,200	14,700	15,900	3,710	12,400
14.....	3,480	2,610	8,860	17,800	11,900	37,200	49,200	11,800	14,300	17,800	4,800	6,780
15.....	1,830	2,940	12,100	12,200	12,000	33,200	67,000	11,300	12,600	14,200	3,600	5,870
16.....	4,820	3,520	26,200	11,400	12,200	29,500	45,300	10,600	15,600	14,460	4,480	5,720
17.....	7,260	9,310	48,700	11,100	10,900	29,600	42,900	11,300	19,900	22,600	2,700	6,120
18.....	2,630	9,730	52,500	10,500	8,850	17,100	37,300	10,500	18,500	23,000	2,910	5,760
19.....	3,510	7,070	50,700	10,500	8,070	24,200	28,800	8,850	14,100	21,000	3,410	5,420
20.....	4,120	6,380	44,100	10,500	9,260	21,000	40,900	10,600	12,600	11,000	7,990	5,480
21.....	3,800	3,780	35,600	6,770	10,400	20,400	82,200	11,000	12,000	10,500	14,900	6,680
22.....	1,470	4,380	28,000	3,490	10,300	20,900	104,000	13,500	11,900	8,060	13,100	4,780
23.....	3,020	4,850	24,800	6,210	12,200	19,700	122,000	23,500	11,900	9,670	10,900	1,910
24.....	4,480	8,400	15,100	7,220	17,800	11,400	113,000	23,800	19,200	12,400	7,670	6,650
25.....	2,210	7,820	12,800	6,860	23,400	12,200	85,000	24,500	44,700	11,700	5,480	7,470
26.....	1,650	2,450	10,400	7,180	15,700	11,800	69,000	23,800	53,600	22,800	5,480	7,460
27.....	618	2,090	9,890	6,430	19,900	18,000	57,700	29,000	38,400	16,300	3,980	8,400
28.....	1,550	1,120	10,300	4,970	19,800	21,700	40,300	31,100	35,700	11,600	3,520	8,650
29.....	635	3,070	11,400	6,670	20,000	19,100	26,400	15,500	27,400	9,920	3,190	8,320
30.....	3,760	3,830	10,800	8,340	-----	23,700	21,200	15,500	21,600	15,200	2,600	700
31.....	5,070	-----	12,300	7,450	-----	41,400	-----	11,900	-----	13,100	1,960	-----

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October.....	7,260	347	2,670	0.262	0.30
November.....	9,730	782	3,670	.360	.40
December.....	52,500	5,270	17,500	1.72	1.98
January.....	39,900	3,490	14,500	1.42	1.64
February.....	23,400	8,070	12,900	1.26	1.36
March.....	46,200	8,110	23,700	2.32	2.68
April.....	122,000	19,600	48,000	4.71	5.26
May.....	31,100	8,850	15,900	1.56	1.80
June.....	75,000	11,200	24,200	2.37	2.64
July.....	28,000	8,060	15,200	1.49	1.72
August.....	14,900	1,960	6,640	.651	.76
September.....	32,100	700	10,600	1.04	1.16
The year.....	122,000	347	16,300	1.60	21.60

ALABAMA RIVER NEAR MONTGOMERY, ALA.

LOCATION.—Water-stage recorder in T. 17 N., R. 17 E., St. Stephens meridian, at highway bridge 4 miles above Autauga Creek and 6 miles northwest of Montgomery, Montgomery County.

DRAINAGE AREA.—15,100 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1928. At Montgomery January, 1899, to December, 1903.

EXTREMES.—Maximum discharge during year, 134,000 second-feet Apr. 25 (gage height, 47.1 feet); minimum, 5,360 second-feet Oct. 30 (gage height, 0.65 foot).

REMARKS.—Records good below and fair above 50,000 second-feet. Considerable regulation caused by operation of power plants upstream. Discharge estimated Apr. 16, 17, 21–25. Records collected by Alabama Power Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1927–28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	11,000	8,140	13,300	19,100	11,400	19,000	42,100	43,200	20,700	51,300	19,000	8,400
2.....	8,410	7,270	13,900	34,600	14,500	13,800	45,600	34,300	21,000	41,900	18,000	10,300
3.....	6,390	8,650	17,700	41,400	15,100	11,900	46,000	29,600	20,500	31,300	18,000	14,100
4.....	8,600	9,690	18,900	40,500	14,800	9,920	44,500	29,400	22,000	21,900	18,600	15,400
5.....	7,270	9,560	15,300	36,700	14,800	14,500	39,800	27,700	72,800	17,900	17,100	14,900
6.....	7,050	8,220	16,200	28,700	14,300	31,800	34,000	22,800	107,000	20,500	11,400	19,500
7.....	7,500	8,460	18,000	24,600	13,500	30,800	32,600	18,500	117,000	24,300	11,500	24,900
8.....	7,420	8,290	20,100	20,700	14,100	25,900	30,000	18,700	110,000	32,000	14,200	24,100
9.....	7,560	8,550	18,400	15,400	15,100	24,800	25,200	20,600	93,400	35,700	16,100	27,700
10.....	6,800	10,500	18,200	15,200	15,000	25,100	24,300	20,300	69,400	30,600	15,300	34,200
11.....	7,060	8,770	16,100	16,200	14,900	36,100	24,400	21,200	45,500	33,500	15,500	36,100
12.....	7,560	8,510	16,100	18,200	14,400	46,600	25,100	23,100	28,500	33,600	12,200	29,900
13.....	7,250	10,200	16,100	17,800	13,300	42,700	27,100	22,700	25,200	33,100	8,220	21,500
14.....	7,710	8,780	17,800	20,300	13,600	41,300	35,200	17,900	25,700	32,600	11,600	16,100
15.....	6,820	9,200	19,500	18,500	14,400	37,700	60,800	18,000	25,100	30,300	12,400	13,300
16.....	6,170	10,500	22,900	14,300	15,100	32,900	69,800	19,300	23,100	22,900	10,500	11,000
17.....	8,640	12,600	37,200	13,100	15,200	31,200	66,800	21,900	25,300	27,300	8,830	9,540
18.....	7,830	15,600	48,500	14,200	14,700	27,000	61,200	22,000	22,800	31,000	8,290	10,100
19.....	7,560	14,500	51,800	15,100	14,000	20,200	49,100	20,800	20,700	30,200	7,370	12,100
20.....	8,640	13,100	49,200	15,500	12,500	23,100	37,800	19,500	22,500	22,000	8,400	12,100
21.....	9,070	9,820	46,600	14,900	14,000	22,100	58,800	18,000	22,900	18,000	14,900	12,700
22.....	7,910	9,450	38,600	10,200	13,800	21,200	80,300	17,600	21,800	17,500	19,200	13,400
23.....	6,620	12,200	31,300	7,840	15,100	20,800	102,000	26,700	20,900	13,100	18,200	8,400
24.....	7,140	13,600	25,700	11,300	17,700	19,400	123,000	37,600	22,700	16,300	15,600	7,710
25.....	9,110	12,600	18,400	11,500	23,700	15,800	133,000	39,800	31,000	18,400	12,600	12,000
26.....	7,380	9,130	13,900	10,500	23,200	17,500	132,000	38,800	51,400	19,700	11,300	13,400
27.....	6,790	9,950	11,600	10,300	19,700	17,400	122,000	38,200	62,000	28,900	9,390	15,600
28.....	6,780	8,220	11,700	8,430	20,200	22,600	110,000	37,500	58,700	19,100	9,670	15,500
29.....	6,860	8,760	12,500	8,490	20,300	24,200	91,200	33,200	56,500	15,500	10,300	14,200
30.....	5,860	11,000	13,400	8,610	-----	24,300	63,000	24,200	54,700	13,800	9,710	10,700
31.....	8,460	-----	14,800	10,100	-----	38,600	-----	21,900	-----	20,300	9,690	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	11,000	5,860	7,580	0.503	0.58
November.....	15,600	7,270	10,100	.669	.75
December.....	51,800	11,600	22,700	1.50	1.73
January.....	41,400	7,840	17,800	1.18	1.36
February.....	23,700	11,400	15,600	1.03	1.11
March.....	46,600	9,920	25,500	1.69	1.95
April.....	133,000	24,300	61,200	4.05	4.52
May.....	43,200	17,600	26,000	1.72	1.98
June.....	117,000	20,500	44,000	2.91	3.25
July.....	51,300	13,100	25,900	1.72	1.98
August.....	19,200	7,370	13,000	.861	.99
September.....	26,100	7,710	16,300	1.08	1.20
The year.....	133,000	5,860	23,800	1.58	21.40

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 (revised).

RECORDS AVAILABLE.—January, 1899, to December, 1913; June to September, 1928.

EXTREMES.—Maximum discharge during period, 59,200 second-feet June 28 (gage height, 24.12 feet); minimum, 7,350 second-feet Sept. 25 (gage height, 2.56 feet).

1899–1913, 1928: Maximum mean daily discharge, 179,000 second-feet (revised) Mar. 18, 1909 (gage height, 52.9 feet); minimum discharge, 2,660 second-feet Nov. 1, 1904 (gage height, -2.20 feet).

Maximum stage known, 57.0 feet Apr. 8, 1886; discharge, 221,000 second-feet.

REMARKS.—Records good. Flow regulated by power plants on Coosa and Tallapoosa Rivers.

Daily and monthly discharge, in second-feet, 1928

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1		38,000	20,800	9,800	16		30,800	12,500	14,000
2		31,800	20,500	9,090	17		27,000	10,600	10,800
3		29,200	19,800	10,400	18		30,800	9,430	9,430
4		26,500	19,500	13,500	19		32,500	8,500	9,430
5		22,000	19,800	15,000	20		31,200	8,270	11,200
6		19,500	17,800	15,200	21		24,800	9,980	11,400
7		21,800	13,000	20,500	22		20,500	16,500	11,800
8		31,000	11,800	26,200	23		18,500	20,200	11,800
9		37,000	14,000	28,800	24	22,800	15,000	19,200	8,920
10		36,000	16,500	29,800	25	26,200	17,600	16,000	7,800
11		35,500	16,000	34,800	26	37,000	19,500	11,800	10,400
12		36,800	16,000	35,500	27	52,800	23,200	11,400	13,000
13		36,500	12,500	30,200	28	58,800	27,200	9,980	15,200
14		35,500	9,790	23,000	29	55,800	21,000	9,600	15,000
15		34,600	11,400	18,600	30	47,800	16,500	10,200	13,800
					31		16,000	9,790	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June 24–30	58,800	22,800	43,000	2.51	0.45
July	39,000	15,000	27,300	1.60	1.34
August	20,800	8,270	14,000	.819	.94
September	35,500	7,800	16,300	.953	1.06

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 to September, 1928.

EXTREMES.—Maximum discharge during period, 49,300 second-feet July 11 (gage height, 19.65 feet); minimum, 9,940 second-feet Sept. 26 (gage height, 4.59 feet).

REMARKS.—Records good. Flow regulated by power plants upstream.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1-----	-----	20,100	12,300	11-----	49,300	17,900	29,200	21-----	40,000	13,700	12,300
2-----	-----	21,900	12,700	12-----	43,000	18,300	34,900	22-----	33,300	14,700	13,100
3-----	46,800	23,700	13,100	13-----	47,100	18,300	37,500	23-----	26,100	17,900	13,500
4-----	39,400	23,700	13,700	14-----	45,500	17,100	34,000	24-----	22,500	21,100	14,100
5-----	34,000	22,100	15,500	15-----	43,200	14,300	27,000	25-----	20,500	21,300	13,100
6-----	28,500	21,700	17,500	16-----	41,000	13,900	20,900	26-----	20,500	19,500	10,500
7-----	23,700	20,700	18,300	17-----	38,800	15,100	17,100	27-----	21,700	16,900	10,900
8-----	25,500	17,700	20,500	18-----	37,200	14,700	14,500	28-----	24,200	14,700	13,300
9-----	36,500	15,700	24,200	19-----	39,700	13,900	12,500	29-----	23,500	13,100	15,300
10-----	45,800	16,500	25,800	20-----	41,600	12,900	11,500	30-----	25,200	11,900	16,300
								31-----	22,100	12,100	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July 3-31-----	49,300	20,500	34,400	1.62	1.75
August-----	23,700	11,900	17,300	.816	.94
September-----	37,500	10,500	18,200	.858	.96

ETOWAH RIVER NEAR KINGSTON, GA.

LOCATION.—Water-stage recorder at highway bridge half a mile above Two River Creek and $2\frac{1}{4}$ miles southwest of Kingston, Barton County. Zero of gage is 609.97 feet above mean sea level.

DRAINAGE AREA.—1,630 second-feet.

RECORDS AVAILABLE.—July to September, 1928.

EXTREMES.—Maximum discharge during period, 8,960 second-feet Sept. 6 (gage height, 10.47 feet); minimum, 1,230 second-feet Sept. 28 (gage height, 4.42 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1.....		1,740	1,440	11.....		1,560	2,120	21.....	2,280	2,070	1,560
2.....		1,740	1,830	12.....		1,520	1,920	22.....	5,140	1,920	1,560
3.....		1,650	4,500	13.....		1,480	1,880	23.....	3,900	1,650	1,480
4.....		1,690	2,870	14.....		1,780	1,740	24.....	2,800	1,610	1,480
5.....		1,690	3,190	15.....		2,180	1,740	25.....	2,800	2,180	1,400
6.....		2,180	7,780	16.....		5,980	2,120	26.....	4,500	3,390	1,400
7.....		2,680	6,680	17.....		4,970	3,600	27.....	4,800	2,340	1,310
8.....		2,280	3,900	18.....	3,060	2,870	2,340	28.....	2,680	2,180	1,310
9.....		1,690	2,800	19.....	2,450	2,340	1,830	29.....	2,180	2,120	1,310
10.....		1,690	2,390	20.....	2,280	2,230	1,690	30.....	1,920	1,610	1,400
								31.....	1,780	1,650	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July 18-31.....	5,140	1,780	3,040	1.86	0.97
August.....	5,980	1,480	2,110	1.36	1.57
September.....	7,780	1,310	2,420	1.48	1.65

TALLAPOOSA RIVER NEAR CRAGFORD, ALA.

LOCATION.—Water-stage recorder in sec. 28, T. 20 S., R. 10 E., 400 feet above mouth of Crooked Creek and 2½ miles east of Cragford. Zero of gage 657.75 feet above mean sea level.

DRAINAGE AREA.—1,460 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1928.

EXTREMES.—Maximum discharge during year, 18,700 second-feet Apr. 23 (gage height, 10.2 feet); minimum, 195 second-feet Oct. 3-8 (gage height, 1.20 feet).
1922-1928: Maximum discharge, 46,300 second-feet Jan. 18, 1925 (gage height, 19.6 feet); minimum, 30 second-feet Sept. 11, 1925 (gage height, 0.65 foot).

REMARKS.—Records good. Records collected by Alabama Power Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	260	260	1,160	4,870	2,220	1,470	5,320	2,670	1,530	2,370	1,350	1,290
2.....	260	295	3,010	2,830	2,010	1,350	3,310	2,520	2,830	1,660	1,230	1,280
3.....	195	450	5,360	2,010	1,590	1,230	2,520	2,370	3,408	1,530	1,530	2,640
4.....	195	570	4,040	1,470	1,410	1,780	2,080	2,080	4,120	1,410	1,410	1,940
5.....	195	570	2,830	1,230	1,290	6,520	1,940	2,080	10,100	1,470	1,170	1,530
6.....	195	530	2,220	1,230	1,230	5,330	1,940	2,030	8,240	1,530	1,170	3,060
7.....	195	490	1,800	1,110	1,170	3,150	2,670	2,080	4,750	1,800	1,530	3,480
8.....	225	450	2,670	1,170	1,590	2,670	2,520	2,080	3,150	2,990	2,010	2,520
9.....	330	530	2,010	2,520	1,800	4,220	2,370	2,080	2,520	2,370	1,290	2,080
10.....	410	610	1,470	2,830	1,590	6,230	3,150	2,010	2,080	3,310	960	1,530
11.....	410	570	1,230	2,370	1,410	6,010	5,790	1,800	2,080	3,310	855	1,290
12.....	450	490	1,110	1,940	1,290	4,180	6,230	1,660	2,080	2,520	855	1,110
13.....	855	490	1,110	1,590	1,290	3,150	3,820	1,590	2,080	2,220	855	1,010
14.....	805	450	1,110	1,410	1,350	2,990	5,510	1,530	2,670	2,670	855	905
15.....	530	450	1,410	1,290	1,410	2,830	10,400	1,530	2,670	2,520	1,730	905
16.....	450	450	3,700	1,230	1,530	2,670	7,520	1,470	2,220	1,870	2,670	1,530
17.....	370	570	8,820	1,110	1,530	2,520	4,750	1,530	2,010	1,800	2,520	1,110
18.....	330	655	2,520	1,060	1,410	2,830	3,480	1,590	1,730	1,940	1,530	1,280
19.....	295	655	1,800	1,060	1,290	2,670	2,990	1,940	1,660	1,800	5,990	1,010
20.....	260	655	1,410	1,060	1,230	2,520	3,150	2,830	1,410	1,410	4,150	805
21.....	295	530	1,230	1,060	1,170	2,220	6,850	2,990	1,290	1,170	2,670	755
22.....	295	490	1,060	1,060	1,540	2,010	10,300	6,590	1,290	1,870	1,660	705
23.....	295	490	1,060	1,060	3,820	1,800	16,900	6,980	1,730	2,080	1,290	705
24.....	330	490	960	1,060	3,480	1,730	13,800	6,890	3,240	1,940	1,060	705
25.....	295	490	960	1,060	3,150	1,730	8,050	5,570	9,650	1,940	2,070	705
26.....	295	490	960	1,060	2,520	1,940	5,110	4,550	8,770	3,480	4,360	705
27.....	295	490	905	1,060	2,010	4,000	3,820	2,990	4,270	2,830	3,250	705
28.....	295	530	855	960	1,730	2,830	3,480	2,520	2,670	1,800	1,800	655
29.....	295	530	1,060	855	1,590	2,220	3,150	2,010	2,370	1,800	1,410	655
30.....	295	530	1,530	855	-----	9,400	2,990	2,010	2,670	1,470	1,530	655
31.....	295	-----	3,530	1,060	-----	8,040	-----	1,660	-----	1,290	1,800	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	855	195	339	0.232	0.27
November.....	655	260	508	.245	.39
December.....	5,360	855	1,930	1.32	1.52
January.....	4,870	855	1,500	1.03	1.19
February.....	3,820	1,170	1,710	1.20	1.29
March.....	9,400	1,230	3,360	2.30	2.65
April.....	16,900	1,940	5,200	3.56	3.97
May.....	6,980	1,470	2,720	1.86	2.14
June.....	10,100	1,290	3,380	2.32	2.59
July.....	3,480	1,170	2,070	1.42	1.64
August.....	5,990	855	1,890	1.29	1.49
September.....	3,480	655	1,310	.897	1.00
The year.....	16,900	195	2,160	1.48	20.14

TALLAPOOSA RIVER AT WADLEY, ALA.

LOCATION.—Staff gage in sec. 12, T. 22 S., R. 10 E., in Wadley, 13 miles below Crooked Creek dam site. Zero of gage is 600.78 feet above mean sea level.

DRAINAGE AREA.—1,660 square miles.

RECORDS AVAILABLE.—September, 1923, to September, 1928.

EXTREMES.—Maximum discharge during year, 22,400 second feet Apr. 23 (gage height, 14.6 feet); minimum, 180 second feet Oct. 1-5 (gage height, 2.60 feet). 1923-1928: Maximum discharge, 46,900 second-feet January 18, 1925 (gage height, 26.3 feet); minimum, 60 second-feet on eight days in September, 1925 (gage height, 2.2 feet).

REMARKS.—Records good. Slight diurnal fluctuation during extremely low water caused by small milldams. Records collected by Alabama Power Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	180	260	1,070	5,410	2,840	1,510	5,760	2,840	1,700	2,080	1,320	1,510
2.....	180	260	2,960	3,220	2,340	1,450	3,610	2,710	2,590	1,950	1,260	1,820
3.....	180	520	6,120	2,080	1,950	1,320	2,710	2,590	4,150	1,700	1,820	2,960
4.....	180	580	4,150	1,570	1,570	2,340	2,210	2,340	4,600	1,640	1,640	2,210
5.....	180	580	2,960	1,260	1,510	8,250	2,080	2,210	12,700	1,570	1,380	1,760
6.....	220	520	2,210	1,200	1,260	6,680	2,080	2,210	9,770	1,760	1,200	3,090
7.....	260	460	2,210	1,200	1,200	3,870	2,960	2,340	5,410	1,700	1,570	4,150
8.....	220	460	3,220	1,380	1,700	2,960	2,590	2,340	3,740	3,480	2,210	2,840
9.....	460	520	2,210	2,460	1,950	4,010	2,340	2,340	2,840	2,710	1,570	2,080
10.....	400	580	1,570	2,960	1,760	7,250	3,090	2,210	2,590	3,350	1,130	1,700
11.....	350	580	1,380	2,590	1,510	7,450	6,120	1,950	2,340	3,870	1,010	1,320
12.....	760	580	1,200	1,950	1,380	4,910	7,060	1,820	2,340	2,840	950	1,200
13.....	1,010	520	1,290	1,700	1,320	3,610	4,450	1,760	2,460	2,460	880	1,260
14.....	820	460	1,200	1,450	1,450	3,220	5,760	1,700	2,960	2,840	1,130	1,070
15.....	640	460	1,380	1,380	1,450	3,610	12,700	1,640	2,960	2,840	1,700	950
16.....	520	460	3,480	1,260	1,640	3,090	8,880	1,570	2,710	2,080	3,090	1,130
17.....	460	640	4,300	1,200	1,700	2,840	5,410	1,700	2,210	1,950	3,220	1,200
18.....	350	700	2,710	1,290	1,570	3,220	4,010	1,700	1,950	2,210	1,820	1,570
19.....	350	700	1,820	1,200	1,450	3,090	3,220	1,820	1,820	2,590	8,250	1,260
20.....	350	580	1,380	1,200	1,320	2,710	3,870	3,220	1,640	1,950	4,910	1,010
21.....	350	580	1,200	1,070	1,260	2,340	8,670	2,960	1,510	1,320	3,220	950
22.....	300	520	1,130	1,070	1,510	2,210	11,700	8,050	1,450	2,210	2,080	820
23.....	260	460	1,070	1,130	4,300	1,950	20,700	8,050	1,820	2,590	1,510	820
24.....	260	460	1,070	1,130	4,010	1,760	14,600	7,650	4,600	2,080	1,260	820
25.....	260	460	1,070	1,130	3,350	1,760	9,320	6,300	10,200	2,210	1,510	820
26.....	260	460	1,010	1,070	2,840	2,080	5,760	4,910	9,320	4,750	4,750	820
27.....	260	460	950	1,070	2,080	4,010	4,600	4,010	5,240	3,610	4,010	760
28.....	260	460	950	1,070	1,760	3,220	3,870	2,590	3,220	1,950	2,210	700
29.....	260	460	1,130	950	1,570	2,340	3,480	2,080	2,590	1,640	1,510	640
30.....	260	460	1,570	950	-----	9,770	2,960	2,210	2,340	1,450	1,700	580
31.....	260	-----	3,350	1,010	-----	8,670	-----	1,950	-----	1,380	1,950	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	1,010	180	357	0.215	0.25
November.....	700	260	507	.305	.34
December.....	6,120	950	2,040	1.23	1.42
January.....	5,410	950	1,600	.964	1.11
February.....	4,300	1,200	1,920	1.16	1.25
March.....	9,770	1,320	3,790	2.28	2.63
April.....	20,700	2,080	5,890	3.55	3.96
May.....	8,050	1,570	3,020	1.82	2.10
June.....	12,700	1,450	3,890	2.32	2.59
July.....	4,750	1,320	2,350	1.42	1.64
August.....	8,250	880	2,190	1.32	1.53
September.....	4,150	580	1,460	.880	.98
The year.....	20,700	180	2,410	1.45	19.79

TALLAPOOSA RIVER AT CHEROKEE BLUFFS, NEAR TALLASSEE, ALA.

LOCATION.—Water-stage recorder in sec. 36, T. 20 N., R. 21 E., 1,000 feet below Wind Creek, three-fourths mile below Martin Dam, and 9 miles north of Tallassee. Zero of gage is 337.95 feet above mean sea level.

DRAINAGE AREA.—3,000 square miles.

RECORDS AVAILABLE.—July, 1912, to September, 1914; October, 1922, to April, 1928 (discontinued).

EXTREMES.—Maximum discharge during year, 9,320 second-feet for seven days in November and December (gage height, 3.30 feet); minimum, 70 second-feet Oct. 30 and Jan. 7 (gage height, 0.10 foot).

1912-1914, 1922-1928: Maximum discharge, 87,500 second-feet Jan. 19, 1925 (gage height, 10.8 feet); minimum, 6 second-feet July 13-22, 1926 (gage height, -0.70 foot), caused by regulation.

REMARKS.—Records good. Discharge estimated Oct. 3-15, Dec. 19-21, January 8-13 and Feb. 19-24. Flow completely regulated by operation of Martin power dam. Records collected by Alabama Power Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1.....	5,490	6,190	7,610	213	1,270	80	120
2.....	3,740	7,650	5,420	3,060	1,220	101	120
3.....	4,700	7,640	6,640	2,930	1,070	90	120
4.....	4,120	7,740	2,550	2,990	80	90	147
5.....	4,770	6,060	6,570	2,720	80	124	160
6.....	4,990	4,070	6,150	1,550	1,290	111	126
7.....	5,020	6,280	5,310	120	1,780	98	117
8.....	5,980	4,330	6,900	255	1,050	100	120
9.....	6,380	4,800	8,070	2,170	1,630	105	116
10.....	5,820	5,730	7,870	1,440	1,530	227	1,270
11.....	4,440	3,990	3,020	1,450	489	132	1,780
12.....	3,690	5,340	6,430	1,440	235	109	1,410
13.....	4,070	3,860	8,240	836	2,040	144	1,240
14.....	4,040	6,600	8,440	188	1,510	178	1,240
15.....	3,630	6,110	6,380	367	2,160	92	545
16.....	1,170	5,510	4,580	1,530	1,430	98	636
17.....	4,100	3,740	2,280	3,180	1,600	101	-----
18.....	4,780	4,910	234	3,560	191	105	-----
19.....	4,940	3,660	4,650	3,570	120	105	-----
20.....	4,900	1,560	4,680	3,420	120	835	-----
21.....	4,720	7,580	4,630	2,200	120	1,420	-----
22.....	3,290	7,650	4,050	3,120	120	1,380	-----
23.....	3,910	4,770	2,050	3,520	120	248	-----
24.....	4,500	138	91	1,980	120	647	-----
25.....	5,070	6,690	90	1,760	129	252	-----
26.....	5,200	7,960	105	1,470	120	266	-----
27.....	5,320	6,120	109	1,400	91	213	-----
28.....	5,370	7,410	805	463	95	145	-----
29.....	4,110	7,410	105	426	84	120	-----
30.....	1,580	7,620	948	1,570	-----	142	-----
31.....	5,760	-----	1,320	1,440	-----	120	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
October.....	6,380	1,170	4,500	1.50	1.73
November.....	7,960	138	5,640	1.88	2.10
December.....	8,440	90	4,070	1.36	1.57
January.....	3,570	120	1,820	.607	.70
February.....	2,160	80	755	.252	.27
March.....	1,420	80	257	.086	.10
April 1-16.....	1,780	116	579	.193	.11

TALLAPOOSA RIVER BELOW TALLASSEE, ALA.

LOCATION.—Water-stage recorder $1\frac{1}{2}$ miles below highway bridge at Tallassee, Elmore County. Zero of gage is 162.03 feet above mean sea level.

DRAINAGE AREA.—3,320 square miles.

RECORDS AVAILABLE.—July to September, 1928.

EXTREMES.—Maximum mean daily discharge during period, 10,600 second-feet July 13 (gage height, 10.4 feet); minimum, 158 second-feet Aug. 19 (gage height, 0.25 foot).

REMARKS.—Records good below and poor above 25,000 second-feet. Considerable fluctuation caused by operation of power plants upstream. Records collected by Alabama Power Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1-----		3,930	3,450	11-----		713	4,290	21-----	4,530	2,580	5,100
2-----		4,860	666	12-----		2,840	2,380	22-----	293	3,010	2,560
3-----		6,400	3,570	13-----	10,600	6,640	3,830	23-----	4,450	3,880	3,450
4-----		4,590	4,320	14-----	7,160	4,660	4,750	24-----	4,670	3,340	3,980
5-----		477	4,480	15-----	3,700	4,080	2,510	25-----	4,010	3,080	6,040
6-----		5,500	2,820	16-----	5,420	2,550	1,060	26-----	3,470	1,350	6,270
7-----		6,430	2,620	17-----	5,790	3,270	3,440	27-----	3,240	5,560	5,930
8-----		5,310	4,520	18-----	3,970	885	5,190	28-----	356	4,470	4,060
9-----		5,190	5,100	19-----	2,250	158	4,790	29-----	1,480	4,890	2,610
10-----		5,390	6,430	20-----	4,490	2,340	4,500	30-----	4,700	4,810	7,300
								31-----	5,320	5,620	-----

Month	Discharge in second-feet				Run-off ft. inches
	Maximum	Minimum	Mean	Per square mile	
July 13-31-----	10,600	293	4,210	1.27	0.90
August-----	6,640	158	3,830	1.15	1.33
September-----	7,300	666	4,070	1.23	1.37

EAST FORK OF TOMBIGEE RIVER NEAR FULTON, MISS.

LOCATION.—Chain gage at highway bridge in T. 9 S., R. 8 E. Chickasaw meridian, 2 miles west of Fulton.

DRAINAGE AREA.—650 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge during period, 865 second-feet Sept. 2 (gage height, 9.40 feet); minimum, 51 second-feet Sept. 26-30 (gage height, 1.62 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		599	11.....		82	21.....	330	57
2.....		777	12.....		78	22.....	280	57
3.....		522	13.....	85	78	23.....	242	57
4.....		206	14.....	99	74	24.....	138	54
5.....		146	15.....	85	64	25.....	106	54
6.....		114	16.....	78	64	26.....	92	51
7.....		99	17.....	64	68	27.....	92	51
8.....		92	18.....	64	64	28.....	106	51
9.....		88	19.....	206	64	29.....	99	51
10.....		85	20.....	544	57	30.....	86	51
						31.....	164	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August 13-31.....	544	64	155	0.233	0.17
September.....	777	51	132	.203	.23

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 and September, 1928.

EXTREMES.—Maximum discharge during period, 2,280 second-feet Sept. 9 (gage height, 9.76 feet); minimum, 198 second-feet Sept. 28-30 (gage height, 2.35 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1		762	11		340	21	736	225
2		2,280	12		320	22	1,440	225
3		1,720	13	361	301	23	1,760	207
4		1,500	14	340	282	24	1,110	207
5		1,060	15	320	282	25	895	207
						26	1,110	207
6		736	16	301	263	27	868	207
7		554	17	301	263	28	710	198
8		454	18	301	263	29	554	198
9		406	19	383	244	30	406	198
10		361	20	949	234	31	406	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August 13-31	1,760	301	697	0.315	0.22
September	2,280	198	490	.222	.25

TOMBIGBEE RIVER AT COLUMBUS, MISS.

LOCATION.—Staff gage at Mobile & Ohio Railroad bridge in Columbus, Lowndes County.

DRAINAGE AREA.—4,490 square miles, revised.

RECORDS AVAILABLE.—January, 1900, to December, 1912; August and September, 1928.

EXTREMES.—Maximum discharge during period not determined; minimum, 525 second-feet Sept. 21–30 (gage height, –2.6 feet).

1900–1912, 1928: Maximum mean daily discharge, 50,400 second-feet Mar. 31, 1902 (gage height, 30.6 feet); minimum not determined.

Maximum known stage, 42.0 feet Apr. 8, 1892.

REMARKS.—Records fair. Discharge estimated Sept. 2–4, 9, 16, 23.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		1, 140	11.....		1, 020	21.....		525
2.....			12.....		1, 020	22.....		525
3.....		3, 140	13.....		900	23.....		525
4.....			14.....		850	24.....		525
5.....		5, 470	15.....		750	25.....		525
6.....			16.....			26.....		525
7.....		3, 010	17.....		750	27.....		525
8.....		2, 160	18.....		750	28.....	2, 160	525
9.....		1, 680	19.....		750	29.....	2, 160	525
10.....		1, 400	20.....		610	30.....	2, 160	525
		1, 020			610	31.....	1, 470	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
September.....	5, 470	525	1, 290	0. 287	0. 32

TOMBIGBEE RIVER NEAR COATOPA, ALA.

LOCATION.—Chain gage in T. 17 N., R. 1 E., 2 miles above Sucarnochee Creek and 5 miles southeast of Coatopa.

DRAINAGE AREA.—15,500 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge during period not determined; minimum, 1,960 second-feet Sept. 29 and 30 (gage height, 3.3 feet).

REMARKS.—Records good except those for estimated periods, Aug. 2-4 and Sept. 3-8, which are fair.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		7,360	11.....	5,800	6,740	21.....	6,740	2,840
2.....		10,200	12.....	6,100	5,500	22.....	8,740	2,730
3.....	8,350		13.....	6,100	4,420	23.....	9,240	2,400
4.....			14.....	5,800	4,180	24.....	8,480	2,400
5.....	6,740		15.....	4,940	3,940	25.....	7,360	2,290
		18,600						
6.....	6,420		16.....	4,180	3,720	26.....	6,740	2,290
7.....	6,420		17.....	3,720	3,500	27.....	6,100	2,180
8.....	6,100		18.....	3,280	3,500	28.....	5,220	2,070
9.....	6,100	8,480	19.....	3,060	3,060	29.....	4,680	1,960
10.....	6,100	7,940	20.....	3,280	3,060	30.....	4,940	1,960
						31.....	5,800	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August 2-31.....		3,060	6,110	0.394	0.44
September.....		1,960	7,010	.452	.50

BUTTAHATCHIE RIVER NEAR CALEDONIA, MISS.

LOCATION.—Staff gage at highway bridge 2 miles northwest of Caledonia, Lowndes County, and 12 miles above mouth.

DRAINAGE AREA.—830 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge during period, 1,750 second-feet Sept. 4 (gage height, 7.34 feet); minimum, 272 second-feet Sept. 30 (gage height, 3.14 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		670	11.....	490	435	21.....	1,320	298
2.....		1,010	12.....	435	410	22.....	1,010	298
3.....		1,550	13.....	460	385	23.....	1,010	298
4.....		1,700	14.....	435	385	24.....	905	298
5.....		1,240	15.....	410	360	25.....	670	298
6.....		905	16.....	385	360	26.....	520	285
7.....		640	17.....	385	360	27.....	490	272
8.....		550	18.....	360	335	28.....	460	285
9.....	490	490	19.....	360	335	29.....	410	272
10.....	490	460	20.....	905	310	30.....	410	272
						31.....	490	-----
Month			Maximum	Minimum	Mean	Per square mile	Run-off in inches	
August 9-31.....			1,320	360	578	0.696	0.60	
September.....			1,700	272	526	.634	.71	

TIBBEE RIVER NEAR TIBBEE, MISS.

LOCATION.—Chain gage at Mobile & Ohio Railroad bridge 1 mile north of Tibbee, Clay County.

DRAINAGE AREA.—943 square miles.

RECORDS AVAILABLE.—August and September, 1928

EXTREMES.—Maximum discharge during period, 1,980 second-feet Sept. 3 (gage height, 12.20 feet); no flow Sept. 16-30.

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		330.0	11.....	22.0	2.2	21.....	302.0	0
2.....		1,040.0	12.....	23.0	12.0	22.....	190.0	0
3.....		1,730.0	13.....	12.0	1.6	23.....	97.0	0
4.....		954.0	14.....	7.0	1.8	24.....	65.0	0
5.....		236.0	15.....	4.2	.2	25.....	40.0	0
6.....		77.0	16.....	3.0	0	26.....	30.0	0
7.....	114.0	41.0	17.....	2.2	0	27.....	428.0	0
8.....	114.0	41.0	18.....	1.8	0	28.....	330.0	0
9.....	58.0	17.0	19.....	1.8	0	29.....	141.0	0
10.....	25.0	.7	20.....	23.0	0	30.....	93.0	0
						31.....	65.0	-----
Month			Maximum	Minimum	Mean	Per square mile	Run-off in inches	
August 7-31.....			428	1.8	87.7	0.093	0.09	
September.....			1,730	0	149	.158	.18	

LUXAPALILA CREEK NEAR COLUMBUS, MISS.

LOCATION.—Chain gage at highway bridge $3\frac{1}{4}$ miles northeast of Columbus, Lowndes County, and $6\frac{1}{2}$ miles above mouth.

DRAINAGE AREA.—726 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge during period, 1,780 second-feet Sept. 14 (gage height, 7.38 feet); minimum, 91 second-feet Sept. 30 (gage height, 2.41 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		363	11.....	338	206	21.....	520	107
2.....		690	12.....	363	184	22.....	466	111
3.....		1,160	13.....	253	173	23.....	547	107
4.....		1,550	14.....	206	162	24.....	466	113
5.....		690	15.....	184	162	25.....	363	99
6.....		520	16.....	173	151	26.....	265	95
7.....		414	17.....	151	124	27.....	218	97
8.....		313	18.....	130	138	28.....	265	95
9.....		253	19.....	301	122	29.....	289	95
10.....	230	230	20.....	440	122	30.....	230	92
						31.....	277	-----

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
August 10-31.....	547	130	303	0.417	0.34
September.....	1,550	91	291	.401	.45

SIPSEY RIVER NEAR ELROD, ALA.

LOCATION.—Chain gage in T. 21 S., R. 12 W., at Mobile & Ohio Railroad bridge $1\frac{1}{4}$ miles east of Elrod.

DRAINAGE AREA.—515 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge not determined; minimum, 76 second-feet Sept. 30 (gage height, 1.62 feet).

REMARKS.—Records poor. Discharge estimated Sept. 2-5.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		305	11.....		760	21.....		116
2.....			12.....		585	22.....		108
3.....		455	13.....		404	23.....		92
4.....			14.....		260	24.....		84
5.....			15.....		204	25.....		80
6.....		653	16.....		196	26.....		76
7.....		760	17.....		188	27.....		84
8.....		800	18.....		172	28.....	220	84
9.....		820	19.....		156	29.....	236	80
10.....		800	20.....		132	30.....	252	76
						31.....	260	-----

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
August 23-31.....	260	220	242	0.470	0.07
September.....	820	76	331	.643	.72

NOXUBEE RIVER AT MACON, MISS.

LOCATION.—Chain gage in T. 15 N., R. 17 E. Choctaw meridian, in Macon.

DRAINAGE AREA.—812 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge during period, 1,140 second-feet Sept. 3 (gage height, 8.80 feet); minimum, 40 second-feet Sept. 29 and 30 (gage height, 2.42 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1		116	11	194	68	21	254	55
2		468	12	128	52	22	342	85
3		1,140	13	122	50	23	450	64
4		678	14	122	61	24	306	50
5		506	15	100	76	25	237	42
6		271	16	90	68	26	134	80
7		155	17	80	55	27	105	68
8	342	110	18	80	52	28	90	64
9	342	95	19	80	58	29	220	40
10	342	85	20	90	55	30	148	40
						31	122	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August 8-31	450	80	188	0.232	0.21
September	1,140	40	160	.197	.22

MULBERRY FORK OF BLACK WARRIOR RIVER NEAR GARDEN CITY, ALA.

LOCATION.—Chain gage in T. 12 S., R. 2 W., 1,000 feet below Louisville & Nashville Railroad and 1 mile southwest of Garden City.

DRAINAGE AREA.—365 square miles.

RECORDS AVAILABLE.—June to September, 1928.

EXTREMES.—Maximum discharge during period, 18,600 second-feet Sept. 1 (gage height, 13.60 feet); minimum, 29 second-feet Sept. 30 (gage height, 2.34 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1.....		572	1,220	7,000	16.....		101	98	491
2.....		465	440	3,170	17.....		82	129	163
3.....		393	348	1,500	18.....		240	1,380	98
4.....		348	200	825	19.....		111	2,770	80
5.....		268	140	572	20.....	327	71	691	77
6.....		348	520	440	21.....	287	1,450	393	67
7.....		307	550	370	22.....	287	769	517	60
8.....		287	185	307	23.....	2,190	416	268	55
9.....		250	469	250	24.....	6,070	370	200	49
10.....		544	491	207	25.....	8,170	370	160	46
11.....		287	250	179	26.....	2,090	240	240	42
12.....		210	191	150	27.....	1,410	207	191	37
13.....		165	174	140	28.....	1,060	572	630	36
14.....		144	120	130	29.....	898	307	210	33
15.....		127	96	116	30.....	691	171	152	29
					31.....		152	337	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June 20-30.....	8,170	287	2,130	5.84	2.39
July.....	1,450	71	334	.915	1.05
August.....	2,770	96	444	1.22	1.41
September.....	7,000	29	557	1.53	1.71

BLACK WARRIOR RIVER AT LOCK 17, NEAR BESSEMER, ALA.

LOCATION.—Staff gage in T. 18 S., R. 8 W., $1\frac{1}{2}$ 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 to September, 1928.

EXTREMES.—Maximum discharge during period, 38,400 second-feet June 24 (gage height, 74.12 feet); minimum, 123 second-feet Sept. 27–30 (gage height, 69.60 feet).

Maximum stage known, 80.3 feet July 9, 1916.

REMARKS.—Records fair except those for extremely low stages, which are poor. Flow regulated by storage above Lock and Dam 17. Records do not include lockages and leaks, which amount to about 15 second-feet.

Daily and monthly discharge, in second-feet, 1928

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	●	5,780	2,380	5,120	16		1,720	547	640
2		4,810	3,000	25,500	17		1,460	517	877
3		3,550	2,630	22,800	18		1,380	458	949
4		2,890	1,900	11,000	19		1,460	1,900	842
5		2,280	1,550	5,450	20		1,380	7,160	705
6		1,960	1,380	3,220	21		1,220	4,500	547
7		2,680	1,990	2,480	22		1,420	3,490	458
8		3,490	1,630	1,720	23		2,430	2,430	348
9		3,900	1,550	1,590	24	5,780	3,160	1,560	273
10		6,810	1,950	1,300	25	25,500	3,490	1,180	162
11		6,110	2,740	1,140	26	37,200	4,200	1,220	162
12		3,440	1,720	986	27	22,300	4,810	986	142
13		2,890	1,140	949	28	11,900	3,840	986	123
14		3,000	773	807	29	8,260	3,550	1,020	123
15		2,280	672	705	30	6,450	2,740	877	123
					31		1,990	912	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
June 24–30	37,200	5,780	16,800	4.22	1.19
July	6,810	1,220	3,100	.779	.96
August	7,160	458	1,830	.460	.53
September	25,500	123	3,020	.759	.85

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 (revised).

RECORDS AVAILABLE.—January, 1889, to December, 1905; August and September, 1928.

EXTREMES.—Maximum discharge during period, 29,800 second-feet Sept. 2; maximum gage height, 34.5 feet Sept. 3; minimum discharge, 478 second-feet Sept. 30 (gage height, 18.85 feet).

1889-1905, 1928: Maximum discharge 215,000 second-feet Apr. 18, 1900 (gage height, 67.7 feet, present datum); minimum, 90 second-feet several days in October, 1897.

REMARKS.—Monthly records good; daily records fair.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....	2,760	5,110	11.....	3,420	1,500	21.....	6,260	822
2.....	2,420	27,600	12.....	2,180	1,400	22.....	7,510	768
3.....	3,600	25,300	13.....	1,700	1,120	23.....	3,400	1,810
4.....	2,610	14,300	14.....	1,500	995	24.....	2,460	965
5.....	2,060	7,510	15.....	1,300	935	25.....	1,700	690
6.....	1,700	5,110	16.....	1,120	905	26.....	1,500	609
7.....	2,760	3,420	17.....	1,020	822	27.....	1,300	598
8.....	2,310	2,610	18.....	950	1,040	28.....	1,500	868
9.....	2,180	2,180	19.....	1,400	980	29.....	1,500	867
10.....	2,060	1,810	20.....	7,010	935	30.....	1,400	487
						31.....	1,500	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August.....	7,510	950	2,490	0.518	0.59
September.....	27,600	487	3,780	.788	.87

LOCUST FORK OF BLACK WARRIOR RIVER NEAR WARRIOR, ALA.

LOCATION.—Chain gage in T. 15 S., R. 4 W., at Buck Short Highway bridge, 8 miles southwest of Warrior.

DRAINAGE AREA.—865 square miles.

RECORDS AVAILABLE.—July to September, 1928.

EXTREMES.—Maximum discharge during period, 8,540 second-feet Sept. 2 (gage height, 11.40 feet); minimum, 34 second-feet Sept. 26 (gage height, 2.24 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1.....		830	2,930	11.....		360	272	21.....	247	830	112
2.....		682	7,810	12.....		227	260	22.....	1,090	500	94
3.....		500	4,030	13.....		174	223	23.....	955	428	78
4.....		550	1,860	14.....		138	192	24.....	1,780	315	76
5.....		428	1,020	15.....		166	177	25.....	890	212	59
6.....		338	740	16.....		138	208	26.....	1,460	382	39
7.....		360	575	17.....		103	272	27.....	1,300	475	70
8.....		264	475	18.....		112	382	28.....	770	428	59
9.....		294	382	19.....	290	4,030	243	29.....	600	294	52
10.....		382	338	20.....	223	1,950	152	30.....	425	188	61
								31.....	338	360	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
July 19-31.....	1,460	223	795	0.919	0.44
August.....	4,030	103	530	.612	.71
September.....	7,810	39	775	.896	1.00

PEARL RIVER BASIN

PEARL RIVER AT EDINBURG, MISS.

LOCATION.—Staff gage in T. 11 N., R. 9 E. Choctaw meridian, at old highway bridge in Edinburg.

DRAINAGE AREA.—898 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge during period, 340 second-feet Sept. 2 (gage height, 5.00 feet); minimum, 18 second-feet Sept. 25–29 (gage height, 1.90 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		214	11.....		79	21.....	41	25
2.....		340	12.....		75	22.....	96	23
3.....		306	13.....		57	23.....	79	23
4.....		243	14.....		44	24.....	50	20
5.....		164	15.....	57	38	25.....	38	18
6.....		142	16.....	41	33	26.....	34	18
7.....		118	17.....	38	30	27.....	33	18
8.....		96	18.....	44	30	28.....	87	18
9.....		83	19.....	50	28	29.....	79	18
10.....		71	20.....	44	26	30.....	75	20
						31.....	71	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August 15–31.....	95	33	56.2	0.063	0.04
September.....	340	18	80.6	.090	.10

PEARL RIVER AT JACKSON, MISS.

LOCATION.—Staff gage in T. 5 N., R. 1 E. Choctaw meridian, at State highway bridge in Jackson.

DRAINAGE AREA.—3,100 square miles (revised).

RECORDS AVAILABLE.—June, 1901, to December, 1913; August and September, 1928.

EXTREMES.—Maximum discharge during period, 1,530 second-feet Sept. 5 (gage height, 5.52 feet); minimum discharge, 228 second-feet Sept. 28-30; minimum gage height, 1.80 feet Sept. 29 and 30.

1901-1913, 1928: Maximum discharge, 36,500 second-feet May 30, 1909; 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 and 5, 1911.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1		670	11		775	21	775	286
2		1,340	12		705	22	775	286
3		1,340	13		635	23	600	272
4		1,530	14		534	24	437	267
5		1,530	15	534	501	25	567	242
6		1,190	16	534	468	26	437	228
7		1,070	17	437	437	27	437	228
8		960	18	437	406	28	406	228
9		849	19	406	360	29	534	228
10		812	20	812	330	30	534	228
						31	534	

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August 15-31	812	406	541	0.175	0.11
September	1,530	228	631	.204	.23

PEARL RIVER NEAR COLUMBIA, MISS.

LOCATION.—Chain gage in T. 3 N., R. 13 E. Washington meridian, at highway bridge 2 miles southwest of Columbia.

DRAINAGE AREA.—5,690 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge during period, 2,520 second-feet Sept. 8 (gage height, 3.71 feet); minimum, 1,250 second-feet Sept. 30 (gage height, 1.97 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		2, 110	11.....		2, 030	21.....	1, 730	1, 880
2.....		2, 190	12.....		1, 890	22.....	1, 660	1, 320
3.....		2, 190	13.....		1, 890	23.....	1, 580	1, 320
4.....		2, 110	14.....		1, 800	24.....	1, 730	1, 380
5.....		2, 110	15.....		1, 890	25.....	1, 800	1, 320
6.....		2, 350	16.....		2, 110	26.....	1, 800	1, 250
7.....		2, 440	17.....	1, 950	1, 890	27.....	1, 660	1, 230
8.....		2, 520	18.....	1, 800	1, 600	28.....	1, 520	1, 250
9.....		2, 350	19.....	1, 730	1, 690	29.....	1, 880	1, 250
10.....		2, 190	20.....	1, 800	1, 450	30.....	1, 880	1, 250
						31.....	1, 880	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August 17-31.....	1, 950	1, 520	1, 760	0.309	0.17
September.....	2, 520	1, 250	1, 790	.315	.35

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-fourths mile southeast of Dlo.

DRAINAGE AREA.—361 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge during period, 111 second-feet Sept. 2 (gage height, 2.71 feet); minimum, 31 second-feet Sept. 19–23, 26, 27, and 29 (gage height, 2.37 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		107	11.....		32	21.....	44	31
2.....		107	12.....		32	22.....	35	21
3.....		94	13.....		32	23.....	35	31
4.....		94	14.....		35	24.....	35	34
5.....		75	15.....		38	25.....	35	32
6.....		50	16.....	42	35	26.....	35	21
7.....		45	17.....	38	35	27.....	35	21
8.....		44	18.....	52	34	28.....	35	32
9.....		35	19.....	54	31	29.....	35	31
10.....		35	20.....	52	31	30.....	35	34
						31.....	66	-----

Month	Discharge in second-feet				Run-off in inches
	Maximum	Minimum	Mean	Per square mile	
August 16–31.....	66	35	41.4	0.115	0.07
September.....	107	31	44.6	.124	.14

MISCELLANEOUS DISCHARGE MEASUREMENTS

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BOGUE CHITTO AT FRANKLINTON, LA.

LOCATION.—Staff gage in T. 2 S., R. 10 E. St. Helena meridian, in Franklinton.
Zero of gage is 125.4 feet above mean sea level.

DRAINAGE AREA.—959 square miles.

RECORDS AVAILABLE.—August and September, 1928.

EXTREMES.—Maximum discharge during period, 3,390 second-feet Sept. 2 (gage height, 4.36 feet); minimum, 700 second-feet Sept. 22 (gage height, 0.26 foot).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1.....		2,120	11.....		970	21.....	920	740
2.....		3,390	12.....		740	22.....	830	700
3.....		2,710	13.....		740	23.....	785	740
4.....		2,330	14.....		740	24.....	740	740
5.....		1,280	15.....		740	25.....	740	740
6.....		1,120	16.....		740	26.....	740	740
7.....		1,460	17.....		740	27.....	740	740
8.....		1,020	18.....	785	740	28.....	740	1,280
9.....		970	19.....	830	740	29.....	785	830
10.....		970	20.....	875	740	30.....	830	740
						31.....	2,630	-----

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
August 18-31.....	2,630	740	926	0.966	0.50
September.....	3,390	700	1,100	1.15	1.28

MISCELLANEOUS DISCHARGE MEASUREMENTS

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow are 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 drainage basins during the year ending September 30, 1928

Date	Stream	Tributary to—	Locality	Gage height	Dis-charge
				Feet	Sec.-ft.
Apr. 14	Warm Spring.....	Jackson River.....	Warm Springs, Va.....	-----	3.2
June 19	do.....	do.....	do.....	1.75	7.4
Apr. 14	Falling Spring.....	do.....	Hot Springs, Va.....	-----	29
July 3	Looney Creek.....	James River.....	1 mile above mouth, near Buchanan, Va.....	-----	26
July 3	Purgatory Creek.....	do.....	1½ miles above mouth, near Buchanan, Va.....	-----	5.7
July 3	Kearnes Spring.....	Purgatory Creek.....	Near Buchanan, Va.....	-----	3.6
Oct. 27	Falling Creek.....	James River.....	½ mile above mouth, near Richmond, Va.....	-----	7.3
Dec. 6	do.....	do.....	do.....	-----	113
Aug. 15	Roanoke River.....	Albemarle Sound.....	At highway No. 40 near Weldon, N. C.....	18.57	84,400
July 23	Smith River.....	Dan River.....	4 miles above Martinsville, Va.....	-----	185
May 2	Tar River.....	Pamlico Sound.....	U. S. Weather Bureau station at Tarboro, N. C.....	12.84	7,770
Sept. 22	do.....	do.....	do.....	26.28	25,000
Sept. 23	do.....	do.....	do.....	27.88	22,500
Sept. 26	do.....	do.....	do.....	27.23	22,800
Sept. 26	do.....	do.....	do.....	26.03	22,200
Sept. 28	do.....	do.....	do.....	18.96	9,850
May 3	do.....	do.....	U. S. Weather Bureau station at Greeneville, N. C.....	12.30	8,800
May 4	do.....	do.....	do.....	12.81	10,000
May 5	do.....	do.....	do.....	13.04	10,300
Sept. 22	do.....	do.....	do.....	19.88	24,900
Sept. 23	do.....	do.....	do.....	20.75	30,400
Sept. 24	do.....	do.....	do.....	21.50	33,500
Sept. 25	do.....	do.....	do.....	21.77	32,800

Miscellaneous discharge measurements in south Atlantic slope and eastern Gulf of Mexico drainage basins during the year ending September 30, 1928—Continued

Date	Stream	Tributary to—	Locality	Gage height	Discharge
				<i>Feet</i>	<i>Sec.-ft.</i>
Mar. 27	Saluda River.....	Santee River.....	State highway No. 10 at Waterloo, S. C., 1 mile below old gaging station.	5.04	2,680
Apr. 11	do.....	do.....	do.....	6.96	3,970
Apr. 12	do.....	do.....	do.....	7.14	3,990
Apr. 16	do.....	do.....	do.....	6.23	3,490
May 17	do.....	do.....	do.....	4.10	1,550
June 27	do.....	do.....	do.....	3.30	1,020
July 6	do.....	do.....	do.....	3.80	1,410
July 18	do.....	do.....	do.....	3.20	915
July 19	do.....	do.....	do.....	3.60	1,160
Feb. 13	McGirts Creek.....	St. Johns River.....	Near Pelham, Fla.		3.41
July 19	Black Creek.....	do.....	1 mile above junction with Yellow Water Creek, near Maxville, Fla.		10.1
July 19	Yellow Water Creek.....	Black Creek.....	1 mile above junction with Black Creek, near Maxville, Fla.		4.2
July 19	Sal Taylor Creek..	Yellow Water Creek.....	¾ mile above junction with Yellow Water Creek, near Maxville, Fla.		1.67
May 2	Alapaha River.....	Suwannee River..	Near Jennings, Fla.		17,900
May 29	do.....	do.....	do.....		1,160
Aug. 18	do.....	do.....	do.....		13,600
May 3	Withlacoochee River.	do.....	Near Blue Springs, Ga.		12,600
May 26	do.....	do.....	do.....		1,800
Oct. 10	Lost Creek.....	Ochlockonee River	Near Arran, Fla.		2.09

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