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

Water-Supply Paper 742

SURFACE WATER SUPPLY *of the* UNITED STATES

1933

PART 2

SOUTH ATLANTIC SLOPE AND EASTERN GULF OF MEXICO BASINS

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SURFACE WATER SUPPLY OF SOUTH ATLANTIC SLOPE AND EASTERN GULF OF MEXICO BASINS, 1933

AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of flow made on streams in the United States during the year ending September 30, 1933.

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

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

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

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

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

1895	$12,500.00	1911–17	$150,000.00	1928	$147,000.00
1896	24,500.00	1918	175,000.00	1929	270,500.00
1897–99	50,000.00	1919	148,244.10	1930	275,000.00
1900	70,000.00	1920	175,000.00	1931	565,000.00
1901–2	100,000.00	1921–23	180,000.00	1932	711,000.00
1903–6	200,000.00	1924–25	170,000.00	1933	600,000.00
1907	150,000.00	1926	165,000.00	1934	[1]540,000.00
1908–10	100,000.00	1927	151,000.00		

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 10.

[1] Only $340,000 available for expenditure.

Measurements of stream flow have been made at about 6,680 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1933, 2,800 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at other points. In connection with this work, data were also collected in regard to precipitation, evaporation, storage reservoirs, river profiles, and water power in many sections of the country and will be made available in water-supply papers from time to time.

DEFINITION OF TERMS

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

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

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

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

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

The following terms not in common use are here defined:

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

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

EXPLANATION OF DATA

The data presented in this report cover the year beginning October 1, 1932, and ending September 30, 1933. At the beginning of January in most parts of the United States much of the precipitation in the preceding 3 months is stored in the form of snow or ice, or in ponds, lakes, and swamps, or as underground water, and this stored

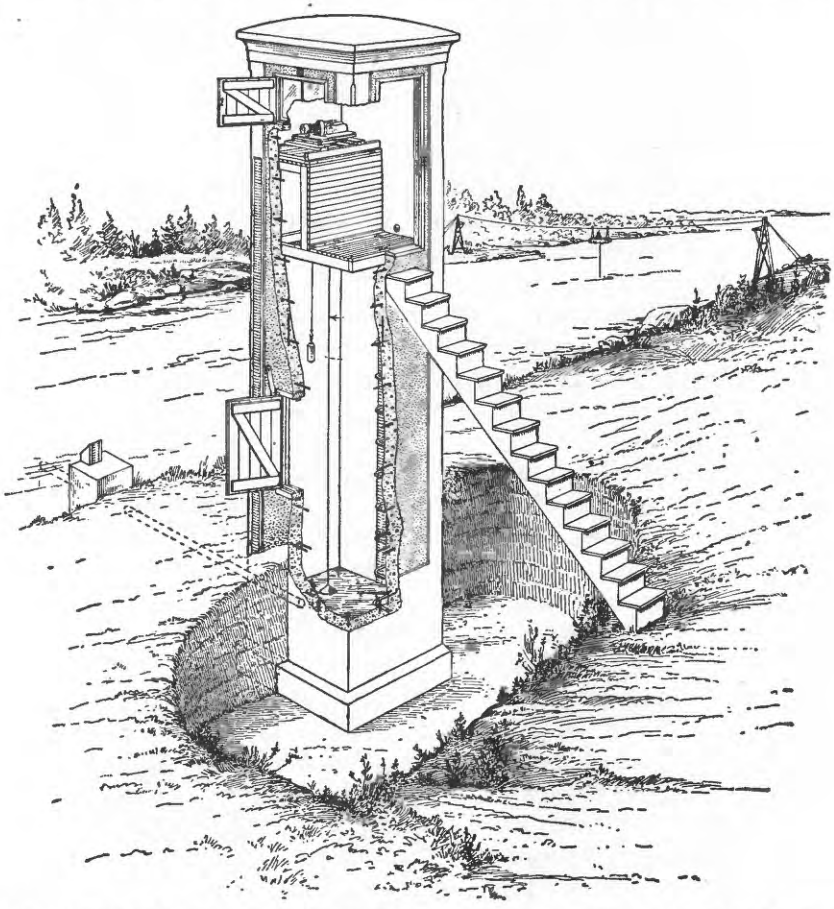

FIGURE 1.—Typical river-measurement station showing concrete well and house for water-stage recorder and staff gages, cable, and car.

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

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

ment the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings of a staff 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.

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

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

The description of the station gives information in regard to the location and type of gage, diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Information under "Discharge" gives the maximum and minimum recorded discharges and the average discharge. The maximum does not necessarily represent the crest discharge unless a water-stage recorder was in operation or a nonrecording gage was read at the time of the crest. Likewise, the minimum may not represent the lowest discharge. The average discharge is the average of the mean annual discharges for the years indicated. It is given only for stations for which there are 10 or more complete years of record.

The table of daily discharge gives, in general, the discharge in second-feet corresponding to the daily gage height, which may be a once-daily reading or the mean of twice-daily readings of a nonrecording gage, or the mean daily gage height obtained from a water-stage recorder graph.

At stations on streams subject to sudden or rapid diurnal fluctuation, the discharge obtained from the rating table and the mean daily gage height may not be the true mean discharge for the day. If such stations are equipped with water-stage recorders, the mean daily discharge may be obtained by averaging discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Maximum" gives the maximum daily discharge and not the discharge when the water surface was at crest height. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge.

The column headed "Mean" is the average flow in cubic feet per second during the month. On this average flow are based computations recorded in the remaining columns, which are defined on page 2.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

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

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

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 power, underground waters, and quality of waters. Most of the results of these investigations have been published in the series of water-supply papers, but some have appeared in the bulletins, professional papers, monographs, and annual reports.

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

Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).
3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River Basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.
9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. North Pacific slope basins, in three parts:
A, Pacific slope basins in Washington and upper Columbia River Basin.
B, Snake River Basin.
C, Pacific slope basins in Oregon and lower Columbia River Basin.

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

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D.C., who will, on application, furnish lists giving prices.

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

3. Sets are available for consultation in the local offices of the water-resources branch of the Geological Survey, as follows:

Augusta, Maine, Statehouse.
Boston, Mass., 945 Post Office Building.
Hartford, Conn., 203 Federal Building.
Albany, N.Y., 353 Broadway.
Trenton, N.J., 228 Federal Building.
Harrisburg, Pa., 492 Education Building.
Charlottesville, Va., University of Virginia.
South Charleston, W.Va., Naval Ordnance Plant.
Asheville, N.C., 220 Post Office Building.
Columbia, S.C., 801 National Loan & Exchange Bank Building.
Ocala, Fla., Post Office Building.
Montgomery, Ala., Post Office Building.
Chattanooga, Tenn., 217 Post Office Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Indianapolis, Ind., 319 Federal Building.
Urbana, Ill., 302 University New Agricultural Building.
Madison, Wis., 337N State Capitol.
St. Paul, Minn., 808 New Post Office Building.
Iowa City, Iowa, 402 Hydraulic Laboratory, University of Iowa.
St. Louis, Mo., 3 Customhouse

Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
Topeka, Kans., 305 Federal Building.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Highway Building.
Santa Fe, N.Mex., State Capitol.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo., 403 Post Office Building.
Salt Lake City, Utah, 303 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, 429 Federal Building.
Helena, Mont., 421 Federal Building.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.
Los Angeles, Calif., 510 Eighth and Figueroa Building.
Honolulu, Hawaii, 225 Federal Building.

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

Stream-flow records have been obtained at about 6,680 points in the United States, and the data obtained have been published in the reports tabulated as follows:

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

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

Report	Character of data	Year
10th A, pt. 2	Descriptive information only	
11th A, pt. 2	Monthly discharge and descriptive information	1884 to Sept. 1890.
12th A, pt. 2	do	1884 to June 30, 1891.
13th A, pt. 3	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	1893-94.
16th A, pt. 2	Descriptive information only	
B 140	Descriptions, measurements, gage heights, ratings and monthly discharge (also many data covering earlier years).	1895.
W 11	Gage heights (also gage heights for earlier years)	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96. 1897.
W 15	Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas River.	1897.
W 16	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898
W 28	Measurements, ratings, and gage heights, Arkansas River and western United States.	1898
20th A, pt. 4	Monthly discharge (also for many earlier years)	1898
W 35 to 39	Descriptions, measurements, gage heights, and ratings	1899
21st A, pt. 4	Monthly discharge	1899
W 47 to 52	Descriptions, measurements, gage heights, and ratings	1900
22d A, pt. 4	Monthly discharge	1900.
W 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
W 75	Monthly discharge	1901.
W 82 to 85	Complete data	1902.
W 97 to 100	do	1903
W 124 to 135	do	1904.
W 165 to 178	do	1905
W 201 to 214	do	1906
W 241 to 252	do	1907-8.

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

Report	Character of data	Year
W 261 to 272	Complete data	1909.
W 281 to 292	do	1910.
W 301 to 312	do	1911.
W 321 to 332	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919–20.
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 601 to 614	do	1925.
W 621 to 634	do	1926.
W 641 to 654	do	1927.
W 661 to 674	do	1928.
W 681 to 694	do	1929.
W 696 to 709	do	1930.
W 711 to 724	do	1931.
W 726 to 739	do	1932.
W 741 to 754	do	1933.

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 1933. The data for any particular station will, as a rule, be found in the reports covering the years during which the station was maintained. For example, data from 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

Numbers of water-supply papers containing results of stream measurements, 1899–1933

[For basins included see p. 6]

Year	1	2	3	4	5	6	7	8	9	10	11	12-A	12-B	12-C
1899[a]	35	[b] 35, 36	36	36	36	[c] 36, 37	37	37	[d] 37, 38	38, [e] 39	38, [f] 39	38	38	38
1900[g]	47, [h] 48	48	48, [i] 49	49	49	49, [j] 50	50	50	50	51	51	51	51	51
1901	65, 75	65, 75	65, 75	65, 75	[k] 65, 66, 75	66, 75	[k] 65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902	82	[b] 82, 83	83	[l] 82, 83	[k] 83, 85	84	[k] 83, 84	84	85	85	85	85	85	85
1903	97	[b] 97, 98	98	97	[k] 98, 99, [m] 100	99	[k] 98, 99	99	100	100	100	100	100	100
1904	[n] 124, [o] 125, [p] 126	[p] 126, 127	128	129	[k] 128, 130	130, [q] 131	[k] 128, 131	132	133	133, [r] 134	134	135	135	135
1905	[n] 165, [o] 166, [p] 167	[p] 167, 168	169	170	171	172	[k] 169, 173	174	175, [s] 177	176, [r] 177	177	178	178	[t] 177, 178
1906	[n] 201, [o] 202, [p] 203	[p] 203, 204	205	206	207	208	[k] 205, 209	210	211, [s] 213	212, [r] 213	213	214	214	214
1907–8	241	242	243	244	245	246	247	248	249	250, [r] 251	251	252	252	252
1909	261	262	263	264	265	266	267	268	269	270, [r] 271	271	272	272	272
1910	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919–20	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933	741	742	743	744	745	746	747	748	749	750	751	753	753	754

[a] Rating tables and index to Water-Supply Papers 35–39 contained in water-supply Paper 39. Monthly discharge for 1899 in Twenty-first Annual Report, part 4.
[b] James River only.
[c] Gallatin River.
[d] Green and Gunnison Rivers and Colorado River above Gunnison River.
[e] Mojave River only.
[f] Kings and Kern Rivers and south Pacific slope basins.
[g] Rating tables and index to Water-Supply Papers 47–52, and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. Monthly discharge for 1900 in Twenty-second Annual Report, part 4.
[h] Wissahickon and Schuylkill Rivers to James River.
[i] Scioto River.
[j] Loup and Platte Rivers near Columbus, Nebr. ,and all tributaries below junction with Platte River.
[k] Tributaries of Mississippi River from east.
[l] Lake Ontario and tributaries to St. Lawrence River proper.
[m] Hudson Bay only.
[n] New England rivers only.
[o] Hudson River to Delaware River, inclusive.
[p] Susquehanna River to Yadkin River, inclusive.
[q] Platte and Kansas Rivers.
[r] The Great Basin in California, except Truckee and Carson River Basins.
[s] Below junction with Gila River.
Rogue, Umpqua, and Siletz Rivers only.

COOPERATION

The work in the several States was done under cooperative agreements as follows: In Florida, with the State Road Department, C. B. Treadway, chairman, and the Okeechobee Flood Control District, A. W. Young, executive secretary; in Mississippi, with the Mississippi Geological Survey, E. N. Lowe, director; in North Carolina, with the North Carolina Department of Conservation and Development, John W. Harrelson, director, succeeded by R. Bruce Etheridge; in South Carolina, with the South Carolina State Highway Department, Ben M. Sawyer, chief highway commissioner, and the city of Spartanburg, W. W. Griffin, chairman of board of water commissioners; and in Virginia, with the Conservation and Development Commission of Virginia, W. E. Carson, chairman.

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

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

DIVISION OF WORK

The data for the stations in the several States were collected and prepared for publication as follows: In Alabama, Mississippi, and for the Apalachicola River Basin in Florida and Georgia, and the Choctawhatchee River Basin in Florida by C. E. McCashin, district engineer, assisted by D. H. Barber, J. L. Saunders, I. E. Anderson, W. M. Littlefield, D. D. Lewis, L. D. Moody, P. L. Hassler, A. E. Lloyd, G. E. Manley, Miss Annie L. Hardin, and Mrs. Marie Barkley; in Florida (except for the Apalachicola and Choctawhatchee River Basins) and for the Altamaha, St. Marys, Satilla, and Suwannee River Basins in Georgia by D. S. Wallace, district engineer, assisted by Verne Alexander, R. P. Mangold, and Miss Louise Volland; in North Carolina by E. D. Burchard, district engineer, assisted by R. E. Cabell, H. A. Taylor, A. G. Hely, Edwin Bjorkman, M. E. Carter, S. Y. Dinkins, Wythe Peyton, Jr., Mrs. Effie T. Workman, and Miss

Mary Armstrong; in South Carolina and the Savannah River Basin in Georgia by A. E. Johnson, district engineer, assisted by F. W. Wagener and Mrs. Alice E. McCravy; in Virginia by J. J. Dirzulaitis, district engineer, assisted by O. D. Mussey, F. F. Schrader, A. R. Green, T. F. Hanly, A. D. Ash, E. A. Gdaniec, P. N. Shackelford, Miss Sue F. Norris, and Miss Patty Padgett.

The records were reviewed and the manuscript assembled by C. V. Youngquist and D. S. Jenkins.

GAGING-STATION RECORDS

JAMES RIVER BASIN

JACKSON RIVER AT BARBER, VA.

LOCATION.—Chain gage at 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 1933.
DISCHARGE.—Maximum during year, 4,900 second-feet Mar. 19 (gage height, 9.45 feet); minimum, 72 second-feet Oct. 3 (gage height, 2.88 feet).

1925–33: Maximum, 6,850 second-feet Nov. 16, 1926 (gage height, 10.90 feet); minimum, 58 second-feet at times in September and October 1930 (gage height, 2.90 feet).

Maximum stage known, about 25.6 feet March 1913 (discharge not determined).
REMARKS.—Records good. Discharge estimated Dec. 17–21 because of ice.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	204	217	812	616	636	542	360	377	121	296	156
2	73	303	204	662	662	592	542	328	312	114	238	145
3	74	303	192	572	760	550	584	360	266	114	238	135
4	74	258	192	530	710	491	824	328	252	125	312	135
5	79	230	180	471	616	436	772	360	225	121	542	135
6	138	204	169	399	510	402	722	428	200	111	360	135
7	169	318	158	350	510	402	1,950	584	200	100	266	125
8	119	399	158	334	2,670	730	1,680	502	188	100	225	118
9	99	530	148	366	1,720	682	1,130	483	166	98	200	114
10	93	2,520	148	452	1,110	636	880	772	238	102	177	107
11	86	1,250	158	399	922	550	722	674	200	145	188	100
12	84	812	169	382	710	510	2,980	940	177	200	177	98
13	77	530	217	366	572	510	1,950	940	238	145	166	97
14	74	434	318	334	530	550	1,060	824	212	125	145	95
15	77	350	490	318	616	1,210	1,000	722	188	118	135	104
16	79	217	288	303	572	1,570	1,350	1,430	166	118	125	156
17	510	273	220	273	572	1,140	3,770	1,430	156	123	135	125
18	1,480	244	200	273	616	950	2,340	1,130	145	109	135	112
19	710	616	190	273	616	3,010	1,590	824	135	102	125	105
20	452	2,370	190	258	2,880	4,250	1,510	674	135	111	116	98
21	350	1,180	200	416	2,420	4,010	1,430	584	120	107	112	93
22	244	812	244	1,810	1,490	2,980	1,200	502	120	107	120	90
23	217	572	288	1,320	1,210	1,860	940	428	114	104	111	90
24	169	510	382	866	890	1,270	824	377	118	102	125	88
25	158	416	710	710	834	940	722	328	135	100	145	80
26	158	366	812	2,880	834	824	628	312	135	104	135	80
27	230	318	662	1,810	780	722	542	312	125	584	123	80
28	288	258	2,770	1,560	730	628	483	328	135	880	118	85
29	258	230	2,270	1,040	-------	584	428	281	156	1,000	156	82
30	217	230	1,720	866	-------	542	394	464	135	584	188	79
31	192	-------	1,040	710	-------	502	-------	542	-------	377	166	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,480	73	229	0.560	0.65
November	2,520	204	575	1.41	1.57
December	2,770	148	494	1.21	1.40
January	2,880	258	713	1.74	2.01
February	2,880	510	988	2.42	2.52
March	4,250	402	1,120	2.74	3.16
April	3,770	394	1,180	2.89	3.22
May	1,430	281	598	1.46	1.68
June	377	114	182	.445	.50
July	1,000	98	208	.509	.59
August	542	111	187	.457	.53
September	156	79	108	.264	.29
The year	4,250	73	546	1.33	18.72

JAMES RIVER AT LICK RUN, VA.

LOCATION.—Water-stage recorder at highway bridge at Lick Run, Botetourt County, three-quarters of a mile below confluence of Cowpasture and Jackson Rivers.

DRAINAGE AREA.—1,370 square miles.

RECORDS AVAILABLE.—April 1925 to September 1933.

DISCHARGE.—Maximum during year, 17,800 second-feet Mar. 20 (gage height, 13.08 feet); minimum, 189 second-feet Oct. 2, 3, 4 (gage height, 1.53 feet).

1925–33: Maximum, 28,500 second-feet Feb. 5, 1932 (gage height, 18.14 feet); minimum, 153 second-feet Oct. 11, 1930 (gage height, 1.51 feet).

Flood of September 1877 reached a stage of 29.1 feet and that of March 1913, 27.2 feet (discharge not determined).

REMARKS.—Records excellent. Discharge estimated Dec. 17–22 because of ice.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	205	1,000	821	3,230	2,460	2,000	1,670	1,280	2,400	386	1,120	575
2	197	1,280	782	2,580	2,400	1,830	1,780	1,240	1,780	358	1,120	514
3	193	1,280	736	2,220	2,580	1,620	1,830	1,330	1,420	386	1,280	456
4	197	1,080	712	2,000	2,520	1,470	3,030	1,280	1,200	421	1,360	411
5	297	930	688	1,780	2,340	1,330	3,160	1,330	1,040	436	1,840	391
6	755	867	658	1,570	1,880	1,200	3,080	1,940	923	362	1,280	406
7	646	1,580	634	1,380	1,780	1,340	6,130	2,100	854	330	909	382
8	509	2,400	593	1,240	6,190	2,050	6,120	2,000	936	311	706	353
9	353	3,120	569	1,570	6,440	2,160	4,280	1,830	840	302	598	325
10	289	10,400	558	2,280	4,000	1,940	3,300	3,780	1,070	293	721	311
11	262	5,590	564	1,940	3,160	1,670	2,740	3,720	930	574	718	293
12	250	3,360	598	1,780	2,580	1,520	9,080	3,100	762	1,240	598	289
13	237	2,340	769	1,570	2,160	1,470	8,560	3,300	1,170	700	547	284
14	233	1,780	1,120	1,380	1,940	1,470	5,180	2,840	1,040	447	509	289
15	224	1,420	1,330	1,280	2,220	2,480	3,860	2,560	769	406	446	551
16	266	1,240	1,200	1,200	2,640	4,040	5,910	3,700	658	411	458	462
17	6,710	1,080	950	1,120	2,340	3,160	15,100	4,880	598	472	514	431
18	9,420	1,000	650	1,080	2,340	2,700	8,960	3,580	547	401	456	358
19	3,660	2,750	600	1,080	2,460	7,000	5,640	2,700	503	343	406	320
20	2,100	8,130	650	1,040	8,730	17,000	4,730	2,220	467	320	367	302
21	1,420	4,430	750	1,000	10,200	14,400	5,180	1,990	436	423	334	276
22	1,080	2,950	850	2,900	5,480	10,200	4,580	2,160	406	382	325	271
23	860	2,160	1,200	3,510	4,000	6,120	3,720	1,620	391	325	339	267
24	724	1,780	1,720	2,100	3,200	4,430	3,100	1,420	386	302	503	262
25	622	1,470	3,260	2,590	2,770	3,370	2,700	1,240	391	289	928	262
26	587	1,330	4,000	8,780	2,777	2,900	2,400	1,160	446	423	598	258
27	1,970	1,200	3,200	6,690	2,520	2,520	2,050	1,120	431	2,190	462	254
28	2,160	1,040	9,540	6,200	2,220	2,220	1,780	1,240	446	3,840	462	258
29	1,420	895	11,300	4,430	-------	2,050	1,570	1,160	456	3,980	493	250
30	1,120	840	6,600	3,370	-------	1,830	1,420	2,340	431	2,280	652	241
31	923	-------	4,280	2,770	-------	1,720	-------	3,950	-------	1,470	694	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,420	193	1,290	0.942	1.09
November	10,400	840	2,360	1.72	1.92
December	11,300	558	2,000	1.46	1.68
January	8,780	1,000	2,510	1.83	2.11
February	10,200	1,780	3,440	2.51	2.61
March	17,000	1,200	3,590	2.62	3.02
April	15,100	1,420	4,420	3.23	3.60
May	4,880	1,120	2,260	1.65	1.90
June	2,400	386	804	.587	.65
July	3,980	289	800	.584	.67
August	1,840	325	701	.512	.59
September	575	241	343	.250	.28
The year	17,000	193	2,030	1.48	20.12

JAMES RIVER AT BUCHANAN, VA.

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

DRAINAGE AREA.—2,080 square miles.

RECORDS AVAILABLE.—August 1895 to September 1933.

DISCHARGE.—Maximum during year, 24,900 second-feet Oct. 17, 18, Mar. 21 (gage height, 12.17 feet); minimum, 283 second-feet Oct. 3, 4 (gage height, 1.67 feet).

1895–1933: Maximum gage height, 31 feet Mar. 27, 1913 (discharge not determined); minimum discharge, 255 second-feet several days in September 1932 (gage height, 1.60 feet). Average, 34 years (1898–1912, 1913–33), 2,510 second-feet.

REMARKS.—Records excellent. Discharge estimated Dec. 17–22 because of ice.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	307	2,010	1,250	5,720	3,800	2,920	2,250	1,910	5,980	597	1,540	888
2	299	2,440	1,200	4,280	3,530	2,600	2,320	1,780	3,580	552	1,190	675
3	291	2,370	1,120	3,710	3,530	2,440	2,320	2,040	2,700	937	1,390	656
4	291	2,010	1,070	3,260	3,530	2,220	3,200	1,910	2,180	630	1,830	630
5	507	1,680	1,010	2,920	3,350	2,010	4,450	2,040	1,840	623	1,900	616
6	1,160	1,500	964	2,520	2,920	1,810	3,940	3,650	1,600	604	1,720	604
7	1,050	2,020	919	2,220	2,520	1,880	8,670	3,740	1,410	533	1,200	539
8	768	3,350	886	2,010	5,440	3,180	9,780	3,370	1,290	497	914	491
9	604	4,710	846	2,220	11,100	3,350	6,920	2,940	1,240	485	768	468
10	474	17,700	830	3,350	6,600	2,840	5,090	3,840	2,140	468	717	452
11	405	10,600	846	3,350	5,090	2,520	4,140	5,750	1,600	503	934	441
12	366	5,940	870	2,920	4,180	2,220	8,660	4,240	1,320	1,270	782	430
13	344	4,090	1,090	2,600	3,440	2,150	14,600	4,340	1,200	1,330	696	430
14	335	3,010	1,740	2,300	3,010	2,150	8,430	3,940	1,530	703	649	425
15	327	2,370	2,150	2,180	3,260	2,760	5,980	3,370	1,210	558	610	436
16	348	2,010	2,010	1,940	4,000	5,310	8,330	3,560	1,010	533	590	571
17	13,500	1,740	1,500	1,810	3,900	4,780	22,500	5,750	880	527	656	578
18	23,000	1,620	950	1,740	3,620	4,000	16,000	4,980	812	564	656	533
19	9,020	3,170	850	1,680	3,800	5,980	9,230	3,720	752	503	590	480
20	4,370	10,900	900	1,620	7,050	21,300	7,410	2,860	703	436	533	430
21	2,760	7,770	1,050	1,550	16,800	22,400	8,690	2,470	662	410	503	410
22	2,010	4,880	1,300	2,150	9,540	16,000	7,410	2,700	636	503	468	390
23	1,560	3,620	1,880	4,380	6,600	10,100	5,980	2,250	604	468	463	385
24	1,290	2,840	3,180	3,710	5,300	6,920	4,870	1,840	590	425	542	385
25	1,100	2,370	5,060	3,270	4,280	5,090	4,140	1,660	623	405	936	390
26	982	2,150	6,600	9,820	4,000	4,240	3,560	1,490	729	446	872	385
27	2,440	1,880	5,200	10,900	3,710	3,650	3,020	1,570	689	993	656	385
28	3,710	1,680	12,300	10,100	3,260	3,200	2,620	1,720	696	3,960	558	385
29	2,680	1,440	21,600	7,770	-------	2,860	2,320	1,620	821	4,660	623	385
30	2,010	1,300	11,500	5,720	-------	2,540	2,040	4,460	668	3,280	685	395
31	1,620	-------	7,530	4,480	-------	2,320	-------	9,230	-------	2,110	808	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	23,000	291	2,580	1.24	1.43
November	17,700	1,300	3,840	1.85	2.06
December	21,600	830	3,230	1.55	1.79
January	10,900	1,550	3,810	1.83	2.11
February	16,800	2,520	5,040	2.42	2.52
March	22,400	1,810	5,090	2.45	2.82
April	22,500	2,040	6,630	3.19	3.56
May	9,230	1,490	3,250	1.56	1.80
June	5,980	590	1,390	.668	.75
July	4,660	405	984	.473	.55
August	1,900	463	870	.418	.48
September	888	385	489	.235	.26
The year	23,000	291	3,080	1.48	20.13

JAMES RIVER AT HOLCOMBS ROCK, VA.

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

DRAINAGE AREA.—3,250 square miles.

RECORDS AVAILABLE.—August 1931 to September 1933. January 1900 to September 1915 (gage heights only).

DISCHARGE.—Maximum during year, 37,500 second-feet Oct. 17 (gage height, 19.42 feet); minimum, 216 second-feet July 23 (gage height, 3.56 feet).

1931–33: Maximum, that of Oct. 17, 1932; minimum, 162 second-feet Aug. 29, 1932 (gage height, 3.45 feet).

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

REMARKS.—Records excellent. Discharge estimated for Dec. 17–21 because of ice, and for Aug. 10–17. Flow regulated by power plants above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	422	4,590	2,120	8,940	6,160	4,550	3,600	3,710	8,960	826	2,490	1,360
2	434	4,340	2,110	6,880	5,750	4,120	3,600	3,310	5,820	906	2,120	1,370
3	442	4,300	2,070	5,890	5,620	3,750	3,780	3,690	4,300	1,480	2,200	901
4	404	3,500	1,770	5,160	5,560	3,300	4,610	3,600	3,760	1,130	2,920	1,080
5	436	2,850	1,780	4,740	5,300	3,020	6,600	3,500	3,100	1,340	2,480	1,070
6	1,590	2,520	1,660	4,170	4,780	2,980	6,540	4,480	2,730	1,070	2,600	916
7	1,920	4,340	1,710	3,500	4,340	3,430	11,100	4,370	2,400	1,040	2,120	668
8	1,310	5,000	1,540	3,280	7,470	4,920	13,400	4,860	2,360	987	1,720	816
9	917	7,420	1,500	3,310	14,300	5,380	10,500	4,910	2,060	748	1,260	708
10	807	18,800	1,460	4,500	9,980	4,820	8,160	5,300	3,580	708	1,000	872
11	622	16,400	1,280	4,970	7,640	4,160	6,640	8,160	2,340	996	1,500	677
12	588	9,760	1,600	4,470	6,500	3,670	10,500	7,450	2,340	1,150	1,400	665
13	542	6,660	1,780	4,020	5,430	3,620	18,700	7,140	2,030	1,980	1,300	703
14	522	5,180	2,450	3,560	5,340	3,440	12,800	6,480	2,320	1,360	1,100	653
15	504	4,140	3,000	3,260	5,320	4,440	9,600	5,690	2,040	1,210	1,000	2,470
16	645	3,260	3,020	3,080	5,880	6,410	13,200	6,250	1,860	1,090	1,100	1,650
17	20,100	2,940	2,500	2,870	5,920	7,040	31,500	8,320	1,650	942	900	1,340
18	31,300	2,670	1,500	2,720	5,500	5,840	22,600	8,000	1,380	1,080	1,080	1,060
19	15,500	5,240	1,400	2,660	5,300	6,270	14,600	6,220	1,470	976	1,040	894
20	7,680	13,100	1,800	2,360	7,420	19,900	12,400	5,080	1,500	1,020	918	766
21	5,100	12,200	2,000	2,560	18,700	26,700	14,600	4,210	1,080	1,050	905	809
22	3,390	7,780	2,150	2,420	13,700	19,600	13,100	4,520	1,270	896	828	592
23	2,620	5,790	2,520	4,900	9,690	14,000	10,800	4,300	1,180	870	818	620
24	2,480	4,800	3,820	5,170	7,770	10,400	8,940	3,320	981	891	1,050	518
25	1,940	3,890	6,760	4,750	6,580	8,160	7,690	2,940	1,090	762	1,350	678
26	1,520	3,290	9,390	13,900	6,080	6,910	6,630	2,880	1,270	894	1,710	599
27	2,870	3,210	7,840	15,900	5,680	6,060	5,740	2,840	1,450	3,050	1,340	530
28	5,020	2,810	14,400	13,700	5,060	5,440	5,080	3,340	1,340	3,880	1,300	604
29	4,690	2,450	25,500	11,400	------	4,760	4,420	2,980	1,470	3,430	1,020	614
30	3,020	1,960	16,800	8,710	------	4,430	4,100	6,290	1,600	4,530	1,250	580
31	2,640	------	11,600	7,010	------	3,960	------	12,100	------	3,730	1,180	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	31,300	404	3,930	1.21	1.40
November	18,800	1,960	5,840	1.80	2.01
December	25,500	1,280	4,540	1.40	1.61
January	15,900	2,360	5,640	1.74	2.01
February	18,700	4,340	7,240	2.23	2.32
March	26,700	2,980	6,950	2.14	2.47
April	31,500	3,600	10,200	3.14	3.50
May	12,100	2,840	5,170	1.59	1.83
June	8,960	981	2,360	.726	.81
July	4,520	708	1,480	.455	.52
August	2,920	818	1,450	.446	.51
September	2,470	518	893	.275	.31
The year	31,500	404	4,620	1.42	19.30

JAMES RIVER AT BENT CREEK, VA.

LOCATION.—Water-stage recorder at highway bridge at Bent Creek, Appomattox County, 150 feet below Bent Creek and 1 mile below Gladstone.
DRAINAGE AREA.—3,670 square miles.
RECORDS AVAILABLE.—March 1925 to September 1933.
DISCHARGE.—Maximum during year, 51,300 second-feet Oct. 18 (gage height, 15.32 feet); minimum, 302 second-feet Oct. 3 (gage height, 2.32 feet).
1925–33: Maximum, 74,000 second-feet Aug. 17, 1928 (gage height, 18.80 feet); minimum, 222 second-feet (revised) Oct. 13, 14, 1930 (gage height, 2.21 feet).
REMARKS.—Records good. Discharge estimated for Dec. 23–26, Jan. 30 to Feb. 3, June 16 to July 3. Flow regulated by power plants above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	600	5,120	2,380	11,600	7,800	5,570	4,650	4,750	11,600	1,950	3,170	1,440
2	600	6,170	2,450	8,840	6,820	5,410	4,450	4,390	7,580	1,440	2,710	1,750
3	360	4,770	2,440	5,990	6,760	5,350	4,430	4,300	5,820	948	2,460	1,990
4	618	4,330	2,500	6,640	6,500	3,800	4,790	4,670	4,840	1,860	2,680	715
5	568	3,810	2,150	5,290	5,930	3,700	6,750	4,390	4,340	1,260	3,080	1,160
6	992	2,920	2,160	5,250	5,640	3,600	7,340	5,310	3,570	1,700	2,430	1,310
7	2,150	5,650	1,880	4,430	5,570	4,420	10,900	6,700	3,080	1,040	3,010	1,170
8	1,990	5,570	1,970	4,270	7,150	5,730	14,900	6,660	2,780	1,230	2,160	781
9	1,330	7,120	1,810	4,350	14,900	6,140	12,600	6,040	2,600	1,510	1,660	1,150
10	828	13,500	1,740	4,470	12,600	6,110	9,690	5,880	2,990	624	1,470	1,090
11	938	19,100	1,970	5,900	9,210	5,310	7,860	7,850	3,580	1,350	2,000	488
12	1,390	12,900	1,480	5,430	7,720	5,140	10,900	8,530	2,700	826	1,510	873
13	530	9,100	2,070	4,860	6,680	3,940	20,100	7,940	2,660	1,390	1,710	836
14	445	6,840	2,440	4,560	5,880	4,750	15,900	7,580	2,340	2,380	1,410	945
15	426	5,290	3,030	3,560	5,870	4,560	11,400	6,720	3,060	1,360	1,220	964
16	570	4,560	3,570	3,790	6,540	6,090	11,000	6,440	2,200	1,490	1,330	3,350
17	18,400	3,890	2,960	3,720	6,560	8,350	35,700	8,320	1,790	1,050	1,360	1,480
18	45,600	3,230	3,860	3,000	6,540	6,950	31,100	9,240	1,980	1,180	1,270	1,200
19	24,400	4,230	1,250	3,020	6,070	6,720	18,800	7,410	1,550	1,080	1,410	1,270
20	11,100	9,840	2,600	3,140	6,720	15,900	15,200	6,530	1,630	1,340	1,130	1,070
21	6,850	13,000	2,610	2,720	18,400	32,000	17,200	4,990	1,670	1,540	753	1,120
22	4,630	10,300	2,360	3,240	16,900	24,200	15,900	5,210	1,260	1,240	1,470	866
23	3,710	7,700	2,800	3,600	11,700	18,000	13,100	5,290	1,480	1,140	916	818
24	2,470	6,110	4,000	6,050	9,290	12,900	10,700	4,320	1,470	953	959	736
25	2,660	5,270	6,060	5,420	7,760	10,100	9,140	3,750	1,290	1,240	1,370	510
26	1,830	4,330	8,000	10,900	7,020	8,460	8,040	3,600	1,490	1,040	1,540	868
27	2,100	4,060	9,220	15,300	6,690	7,460	7,020	3,300	1,860	3,020	1,950	812
28	5,010	3,550	11,400	14,700	6,130	6,860	6,640	3,510	2,140	5,110	1,380	768
29	5,210	3,080	26,600	13,800	------	5,960	5,160	4,020	1,370	7,400	1,570	748
30	4,700	2,780	22,200	11,100	------	5,350	5,260	5,920	1,980	7,120	1,470	750
31	2,700	------	15,600	9,250	------	5,040	------	12,860	------	4,920	1,140	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	45,600	360	5,020	1.37	1.58
November	19,100	2,780	6,600	1.80	2.01
December	26,600	1,250	5,080	1.38	1.59
January	15,300	2,720	6,390	1.74	2.01
February	18,400	5,570	8,260	2.25	2.34
March	32,000	3,600	8,190	2.23	2.57
April	35,700	4,430	11,900	3.24	3.62
May	12,800	3,300	6,010	1.64	1.89
June	11,600	1,260	2,960	.807	.90
July	7,400	624	1,990	.542	.63
August	3,170	753	1,730	.471	.54
September	3,350	488	1,100	.300	.34
The year	45,600	360	5,410	1.47	20.02

JAMES RIVER AT SCOTTSVILLE, VA.

LOCATION.—Water-stage recorder at highway bridge at Scottsville, Albemarle County, 7 miles above Hardware River.

DRAINAGE AREA.—4,570 square miles.

RECORDS AVAILABLE.—February 1925 to September 1933.

DISCHARGE.—Maximum during year, 59,500 second-feet Oct. 18 (gage height, 18.45 feet); minimum, 382 second-feet Oct. 5 (gage height, 1.62 feet).

1925–33: Maximum, 75,600 second-feet Aug. 17, 1928 (gage height, 20.92 feet); minimum, 302 second-feet Oct. 1, 1930 (gage height, 1.46 feet).

REMARKS.—Records excellent except those estimated for Dec. 17–20, July 2, Aug. 1–7, which are good. Flow regulated by power plants above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	673	7,510	3,650	14,400	8,900	6,460	5,950	6,480	14,100	2,340	4,500	1,790
2	594	9,940	3,080	10,900	8,280	5,930	5,770	5,950	9,540	1,890	3,500	1,930
3	612	7,270	3,050	8,780	7,810	5,560	5,000	5,970	7,280	2,130	3,000	2,360
4	492	6,200	3,360	7,920	7,700	5,210	5,760	6,140	5,580	1,690	2,830	1,730
5	597	4,940	2,650	7,360	7,560	4,740	6,300	5,650	5,020	2,190	3,010	1,170
6	1,230	4,800	3,030	6,260	6,740	4,260	8,420	6,470	4,300	1,570	3,160	1,540
7	2,140	8,660	3,040	6,110	6,860	4,680	11,900	7,380	4,170	2,010	2,660	1,700
8	2,310	8,560	2,080	5,100	9,130	7,090	16,400	7,820	3,850	1,450	2,910	1,250
9	2,030	9,440	2,710	5,380	13,600	7,200	15,800	7,340	3,290	1,490	2,500	1,180
10	1,410	17,500	2,450	7,000	16,400	7,190	11,800	7,340	3,390	1,630	1,730	1,300
11	910	26,600	2,660	6,120	11,700	6,720	9,620	7,260	4,300	1,730	2,790	1,240
12	1,130	17,500	2,360	7,100	9,500	5,770	13,500	9,800	2,880	1,600	2,160	676
13	1,280	11,100	2,700	6,340	8,280	5,260	20,500	9,100	3,790	1,290	1,740	1,090
14	590	8,260	3,150	5,720	7,560	5,630	21,100	8,740	2,550	2,240	2,040	1,120
15	500	7,020	3,500	5,130	7,280	5,390	14,500	7,790	2,930	2,310	1,850	2,530
16	531	5,940	3,880	4,470	7,250	6,290	13,600	7,760	3,320	1,510	1,740	2,750
17	18,800	4,920	3,500	4,630	7,610	7,720	43,000	8,100	2,740	1,680	1,610	2,920
18	56,200	4,220	4,500	4,370	7,620	8,140	41,600	9,980	2,140	1,480	1,820	1,740
19	35,700	5,870	3,500	4,340	7,430	7,410	26,200	8,910	2,420	1,480	1,430	1,580
20	15,600	12,000	3,100	3,940	7,640	10,500	23,100	7,400	2,120	1,480	1,780	1,420
21	9,030	17,700	3,230	4,050	14,500	32,400	23,800	7,060	2,210	2,510	1,450	1,270
22	6,910	13,300	3,410	4,030	21,400	31,100	22,200	6,060	1,740	2,090	1,300	1,290
23	4,780	9,220	3,220	3,360	14,300	22,300	18,300	6,250	1,780	1,440	1,820	1,050
24	3,480	7,540	4,300	6,230	10,900	15,700	14,900	5,890	1,790	1,370	1,910	1,010
25	3,500	6,580	6,600	6,860	9,030	12,000	12,500	4,630	1,890	1,490	1,590	912
26	3,320	5,620	10,900	12,400	7,900	9,920	10,700	4,190	1,830	2,350	1,880	658
27	2,580	4,970	11,800	21,200	7,300	8,460	9,320	4,540	2,820	3,520	2,200	1,040
28	3,880	4,650	17,300	20,500	7,120	7,780	8,380	4,580	2,550	5,220	1,960	974
29	6,370	4,060	34,300	17,700	-------	7,160	7,920	4,520	2,200	6,970	2,570	1,130
30	5,400	3,820	30,700	13,800	-------	6,510	6,320	6,270	1,990	7,240	2,120	1,040
31	3,910	-------	19,400	10,700	-------	5,860	-------	12,100	-------	6,300	1,660	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	56,200	492	6,340	1.39	1.60
November	26,600	3,820	8,860	1.94	2.16
December	34,300	2,080	6,680	1.46	1.68
January	21,200	3,360	8,140	1.78	2.05
February	21,400	6,740	9,550	2.09	2.18
March	32,400	4,260	9,240	2.02	2.33
April	43,000	5,000	15,100	3.30	3.68
May	12,100	4,190	7,020	1.54	1.78
June	14,100	1,740	3,680	.805	.90
July	7,240	1,200	2,430	.532	.61
August	4,500	1,300	2,230	.488	.56
September	2,920	658	1,450	.317	.35
The year	56,200	492	6,700	1.47	19.88

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 1933.
DISCHARGE.—Maximum during year, 75,400 second-feet Oct. 18 (gage height, 21.54 feet); minimum, 632 second-feet Oct. 16 (gage height, 0.42 foot).
1899–1933: Maximum, about 106,000 second-feet Dec. 30, 1901 (gage height, 26.7 feet); minimum, 320 second-feet Sept. 22, 1932 (gage height, 0.11 foot). Average, 33 years (1899–1904, 1905–33), 7,180 second-feet.
REMARKS.—Records excellent. Flow regulated by power plants above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	922	11,700	4,750	20,900	12,000	8,140	7,360	8,100	18,300	2,530	6,330	2,860
2	892	20,600	4,480	14,700	10,900	7,400	7,090	7,670	14,200	2,680	5,060	2,920
3	788	12,100	4,080	11,900	10,200	7,160	7,160	7,580	9,690	3,400	3,940	2,840
4	848	9,270	4,080	10,100	9,740	6,910	7,530	7,910	7,820	4,580	3,600	3,060
5	756	7,180	4,180	9,560	9,600	6,070	8,180	7,500	6,760	2,760	3,540	2,340
6	1,650	6,470	3,460	8,130	8,680	5,860	9,530	8,210	5,770	2,560	3,850	2,050
7	2,630	10,400	3,750	7,580	8,400	5,880	15,200	8,840	5,460	2,120	3,420	2,140
8	2,700	14,600	3,660	6,830	13,000	8,160	18,800	9,510	5,070	2,240	3,080	2,220
9	2,310	13,100	3,040	7,680	15,100	9,720	19,500	9,100	4,820	1,860	3,020	1,620
10	1,850	32,500	3,360	10,400	20,200	9,020	15,600	8,620	4,090	1,880	2,910	1,770
11	1,350	33,700	3,270	8,630	15,500	8,390	12,200	9,020	4,210	2,170	4,160	1,660
12	1,040	26,300	3,640	8,830	12,400	7,500	16,700	10,400	5,120	4,480	5,640	1,500
13	1,360	15,500	3,340	8,160	10,700	7,180	25,200	10,900	3,520	2,580	3,220	1,260
14	1,110	11,100	4,540	7,310	9,900	6,980	28,100	10,100	4,140	1,880	2,480	1,540
15	719	8,960	4,700	6,890	10,800	7,260	19,800	9,580	3,090	3,040	2,560	2,200
16	683	7,440	4,860	6,260	10,600	7,580	15,700	9,660	3,660	3,120	2,320	5,440
17	11,400	6,710	5,240	6,020	10,200	8,240	46,600	10,400	3,440	4,000	2,280	4,820
18	67,600	5,920	4,660	5,940	9,820	9,960	67,500	10,900	3,210	2,650	2,300	3,000
19	62,100	8,300	5,610	5,450	9,550	9,020	43,000	11,000	2,860	2,250	2,270	2,220
20	26,800	17,800	3,780	5,540	9,740	10,200	31,700	9,230	2,480	2,040	1,900	2,120
21	13,100	19,800	4,420	5,100	13,600	29,000	31,800	8,390	2,540	2,480	2,140	1,740
22	8,640	18,700	4,400	5,230	25,200	42,000	29,800	7,730	2,520	3,130	1,840	1,680
23	6,510	12,200	4,690	5,580	18,800	29,400	24,400	7,340	2,060	2,360	2,190	1,620
24	5,340	9,570	5,740	5,250	13,900	20,400	19,200	7,140	2,340	1,780	6,020	1,420
25	3,960	8,090	9,580	8,440	11,400	15,200	15,800	6,080	2,260	1,610	4,320	1,340
26	4,140	7,380	13,600	21,700	10,100	12,500	13,500	5,650	2,520	2,440	2,800	1,270
27	3,720	6,800	15,300	28,200	9,160	10,800	11,600	5,080	2,780	6,900	3,120	1,160
28	3,760	6,280	22,100	30,200	8,740	9,710	10,400	5,860	4,330	9,180	3,080	1,340
29	6,250	5,500	49,400	25,900	------	9,040	9,780	6,150	3,980	9,050	3,880	1,360
30	6,580	4,960	44,600	19,600	------	8,200	8,600	8,840	2,780	9,250	5,220	1,900
31	6,090	------	29,700	14,600	------	7,640	------	18,600	------	8,440	3,660	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	67,600	683	8,310	1.33	1.53
November	33,700	4,960	12,600	2.02	2.25
December	49,400	3,040	9,230	1.48	1.71
January	30,200	5,100	11,200	1.79	2.06
February	25,200	8,400	12,100	1.94	2.02
March	42,000	5,860	11,300	1.81	2.09
April	67,500	7,090	19,900	3.19	3.56
May	18,600	5,080	8,740	1.40	1.61
June	18,300	2,060	4,860	.779	.87
July	9,250	1,610	3,590	.575	.66
August	6,330	1,840	3,420	.548	.63
September	5,440	1,160	2,150	.345	.38
The year	67,600	683	8,910	1.43	19.37

WARM SPRING AT WARM SPRINGS, VA.

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

RECORDS AVAILABLE.—June 1928 to September 1933.

DISCHARGE.—Maximum mean daily during year, 3.43 second-feet Aug. 26; minimum, 1.75 second-feet Oct. 13.

1928–33: Maximum mean daily, 5.45 second-feet Nov. 18, 1929 (flow probably increased somewhat by local surface run-off); minimum, 1.35 second-feet Feb. 25, 26, 1931.

REMARKS.—Records excellent except those estimated for Mar. 3–22, Apr. 16, 17, which are good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.88	1.90	2.03	2.09	2.26	2.54	2.80	3.08	2.92	3.22	2.79	2.60
2	1.87	1.93	2.03	2.08	2.26	2.54	2.79	3.07	2.97	3.06	2.72	2.62
3	1.89	1.84	2.03	2.18	2.26		2.74	3.02	2.97	3.02	2.82	2.70
4	1.82	1.82	2.07	2.15	2.27		2.76	3.06	2.92	2.96	2.80	2.70
5	1.86	1.86	2.08	2.22	2.26		2.70	2.94	3.00	2.99	2.78	2.62
6	1.89	1.90	2.04	2.32	2.32		2.86	2.98	3.04	2.96	2.86	2.65
7	1.84	1.89	2.04	2.36	2.31		2.88	3.10	2.98	3.00	3.02	2.60
8	1.78	1.88	2.03	2.52	2.28		2.86	3.14	2.90	2.98	3.10	2.70
9	1.80	2.34	2.03	2.81	2.29		2.80	3.16	2.95	2.88	3.18	2.71
10	1.84	2.08	2.04	2.71	2.31		2.78	3.17	2.96	2.92	3.18	2.69
11	1.76	1.96	2.02	2.20	2.61		3.14	2.76	2.88	3.00	3.27	2.69
12	1.83	1.98	2.00	2.22	2.46	2.60	2.92	3.01	2.98	2.97	3.18	2.63
13	1.75	1.92	2.02	2.22	2.39		2.84	3.36	3.06	2.96	3.22	2.61
14	1.78	1.97	2.01	2.20	2.39		2.83	3.29	3.06	2.98	3.12	2.69
15	1.79	1.98	2.01	2.13	2.39		2.84	3.20	3.12	2.92	3.09	2.59
16	1.97	2.00	2.02	2.11	2.46		2.90	3.18	2.96	2.93	3.16	2.53
17	2.15	1.95	2.01	2.11	2.44		2.90	3.20	2.92	2.92	3.18	2.59
18	1.86	1.92	2.06	2.11	2.55		2.95	3.18	2.95	2.88	3.17	2.60
19	2.00	2.16	2.08	2.14	2.87		2.96	3.28	3.00	2.86	3.14	2.65
20	1.84	2.00	2.08	2.18	2.63		2.93	3.25	2.92	2.88	3.11	2.58
21	1.81	2.00	2.08	2.18	2.48		2.95	3.24	3.05	2.92	3.15	2.58
22	1.88	2.00	2.08	2.24	2.43		2.98	3.21	2.97	2.92	3.14	2.54
23	1.88	1.94	2.07	2.24	2.42	2.72	2.98	3.26	2.95	2.88	3.17	2.60
24	1.79	1.98	2.07	2.33	2.42	2.68	2.94	3.30	3.10	2.86	3.08	2.60
25	1.81	2.04	2.20	2.26	2.47	2.62	2.96	3.29	2.96	2.84	3.12	2.60
26	1.92	1.96	2.09	2.15	2.46	2.65	2.96	3.16	2.93	2.90	3.43	2.58
27	1.86	2.03	2.07	2.40	2.45	2.67	2.96	3.24	3.04	2.98	3.30	2.54
28	1.89	1.96	2.54	2.44	2.50	2.65	3.03	3.25	3.02	2.92	2.76	2.66
29	1.87	2.06	2.32	2.36	-------	2.66	3.04	3.08	3.01	2.90	2.76	2.62
30	1.80	2.02	2.24	2.36	-------	2.67	3.12	2.88	3.00	2.80	2.70	2.59
31	1.86	-------	2.21	2.37	-------	2.68	-------	2.92	-------	2.78	2.71	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	2.15	1.75	1.86	May	3.36	2.76	3.14
November	2.34	1.82	1.98	June	3.12	2.88	2.98
December	2.54	2.00	2.09	July	3.22	2.78	2.93
January	2.81	2.08	2.27	August	3.43	2.70	3.04
February	2.87	2.26	2.42	September	2.71	2.53	2.62
March	2.72	2.54	2.62				
April	3.14	2.70	2.90	The year	3.43	1.75	2.57

DUNLAP CREEK NEAR COVINGTON, VA.

LOCATION.—Chain gage at highway bridge 3 miles west of Covington, Alleghany County.

DRAINAGE AREA.—166 square miles.

RECORDS AVAILABLE.—December 1928 to September 1933.

DISCHARGE.—Maximum during year, 3,440 second-feet Mar. 19 (gage height, 7.58 feet); minimum, 11 second-feet Sept. 13 (gage height, 0.93 foot).

1928–33: Maximum, about 4,890 second-feet Nov. 18, 1929 (gage height, 9.46 feet); minimum, 8 second-feet Aug. 27, 28, 30, 1932 (gage height, 0.88 foot).

REMARKS.—Records good. Discharge estimated Dec. 18–21 because of ice.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	43	54	306	203	190	144	103	259	29	69	23
2	12	53	51	259	203	178	140	96	178	27	61	22
3	12	60	49	216	190	155	203	103	132	42	53	21
4	13	54	46	190	190	136	705	93	108	36	46	21
5	16	48	46	166	166	117	460	117	93	28	41	21
6	32	46	43	136	134	108	397	203	80	25	35	20
7	29	96	42	120	155	117	880	178	72	25	32	20
8	21	134	41	108	1,240	144	575	166	64	23	29	18
9	18	880	38	190	575	144	397	155	56	22	27	18
10	16	1,120	40	306	340	136	306	1,300	230	23	37	17
11	16	377	40	259	274	124	259	625	104	44	36	18
12	15	203	41	216	203	124	1,680	377	82	43	33	18
13	16	140	56	178	166	122	760	290	259	33	29	14
14	15	110	81	155	166	132	482	230	132	27	32	16
15	15	90	92	140	290	340	340	190	93	30	28	17
16	21	80	81	124	397	438	505	323	76	35	29	16
17	230	72	67	113	323	306	880	358	67	32	32	17
18	528	64	50	110	358	274	550	230	56	27	30	16
19	178	377	40	110	377	2,330	417	178	49	25	25	16
20	103	575	40	100	2,740	2,070	323	144	46	25	24	18
21	75	290	50	113	1,180	1,420	340	155	38	29	22	16
22	58	190	68	216	575	880	306	166	37	25	21	16
23	51	142	216	306	397	505	244	132	36	22	25	16
24	43	115	244	244	290	340	216	111	34	21	23	15
25	38	100	678	244	259	274	203	96	36	26	21	15
26	34	92	397	820	274	244	178	113	54	27	20	13
27	44	78	306	600	244	203	144	106	42	820	19	16
28	48	68	2,260	650	216	178	130	144	36	575	17	17
29	42	58	1,180	417	-------	155	119	117	36	377	28	16
30	41	58	575	306	-------	140	106	216	32	155	26	16
31	38	-------	397	244	-------	138	-------	505	-------	96	24	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	528	12	59.1	0.356	0.41
November	1,120	43	194	1.17	1.30
December	2,260	38	239	1.44	1.66
January	820	100	247	1.49	1.72
February	2,740	134	433	2.61	2.72
March	2,330	108	392	2.36	2.72
April	1,680	106	413	2.49	2.78
May	1,300	93	236	1.42	1.64
June	259	32	87.2	.525	.59
July	820	21	89.5	.539	.62
August	69	17	31.4	.189	.22
September	23	13	17.4	.105	.12
The year	2,740	12	202	1.22	16.50

POTTS CREEK NEAR COVINGTON, VA.

LOCATION.—Chain gage at highway bridge a quarter of a mile above Hays Creek and 3 miles southwest of Covington, Alleghany County.

DRAINAGE AREA.—158 square miles.

RECORDS AVAILABLE.—December 1928 to September 1933.

DISCHARGE.—Maximum during year, 1,550 second-feet Dec. 28 (gage height, 4.14 feet); minimum, 20 second-feet Oct. 1, 3, 4, 12, 14, Sept. 30 (gage height, 1.40 feet).

1928–33: Maximum, 3,480 second-feet Nov. 18, 1929 (gage heigl t, 6.27 feet); minimum, 13 second-feet Nov. 29, 1930 (gage height, 1.30 feet).

REMARKS.—Records good. Discharge estimated Dec. 18–21 because of ice.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jul-	Aug.	Sept.
1	21	78	69	389	278	192	181	129	300	36	55	38
2	22	76	69	306	284	173	181	129	219	39	44	35
3	20	78	65	268	278	162	181	139	166	50	41	34
4	21	69	58	233	273	142	340	126	139	52	39	32
5	26	65	60	201	252	129	317	158	121	43	35	41
6	55	60	58	162	201	118	480	268	105	39	36	35
7	44	80	55	145	289	136	1,070	210	98	36	35	32
8	34	82	52	126	802	196	728	205	89	35	31	30
9	26	480	50	219	480	169	550	192	80	34	27	28
10	24	1,030	52	273	408	155	408	550	118	34	34	28
11	24	447	55	214	329	139	383	371	87	82	39	28
12	21	317	58	210	284	132	1,310	352	74	65	35	27
13	22	205	132	173	224	129	802	311	263	46	31	26
14	21	142	166	152	201	145	620	300	118	38	30	27
15	22	118	158	148	311	284	515	252	85	39	28	26
16	27	105	118	142	352	340	990	242	76	96	36	26
17	550	118	93	129	317	284	1,030	268	73	50	39	26
18	765	82	80	123	340	258	728	214	65	40	34	27
19	196	364	70	136	317	690	620	192	60	35	30	26
20	121	515	70	123	990	1,070	515	169	55	35	31	24
21	74	317	90	136	802	990	447	155	52	38	29	26
22	62	224	110	237	585	765	402	158	50	36	29	28
23	52	173	224	210	447	585	329	129	49	32	31	26
24	47	142	402	181	358	447	284	116	49	32	31	22
25	44	123	620	224	306	358	247	105	55	32	30	22
26	47	118	408	728	300	329	233	98	62	60	28	22
27	98	105	346	585	242	278	188	98	54	87	57	26
28	100	80	1,390	655	205	242	169	108	52	173	49	24
29	82	76	1,070	447	-------	205	152	103	50	162	46	23
30	67	73	728	352	-------	181	139	252	46	74	65	22
31	62	-------	515	294	-------	169	-------	515	-------	65	47	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	765	20	90.2	0.571	0.66
November	1,030	60	198	1.25	1.40
December	1,390	50	242	1.53	1.76
January	728	123	256	1.62	1.87
February	990	201	373	2.36	2.46
March	1,070	118	309	1.96	2.26
April	1,310	139	485	3.07	3.42
May	550	98	213	1.35	1.56
June	300	46	97.0	.614	.68
July	173	32	55.3	.350	.40
August	65	27	37.2	.235	.27
September	41	22	27.9	.177	.20
The year	1,390	20	197	1.25	16.94

COWPASTURE RIVER NEAR CLIFTON FORGE, VA.

LOCATION.—Chain gage at iron highway bridge 1½ 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 1933.

DISCHARGE.—Maximum during year, 6,280 second-feet Oct. 18, Apr. 17 (gage height, 9.15 feet); minimum, 48 second-feet Oct. 3 (gage height, 1.80 feet).

1907–8, 1925–33: Maximum gage height, 10.0 feet, original datum, June 14, 1907 (discharge not determined); minimum discharge, 38 second-feet Sept. 2, 1932 (gage height, 1.70 feet).

Maximum stage known, 20.8 feet in March 1913 (discharge not determined).

REMARKS.—Records good. Discharge estimated Dec. 18–21 because of ice.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	412	234	825	760	532	482	390	730	114	328	252
2	53	586	224	700	730	507	507	369	507	103	482	210
3	49	507	214	586	760	458	482	434	412	119	507	182
4	58	390	203	532	792	434	825	412	348	126	614	167
5	81	328	191	507	671	369	825	458	308	145	825	170
6	412	412	185	434	559	348	825	642	270	116	434	145
7	289	825	179	390	532	390	1,990	700	252	107	308	139
8	191	1,240	167	369	2,460	700	1,640	642	328	98	234	126
9	150	1,240	162	507	1,900	642	1,170	559	328	94	207	119
10	98	3,620	159	642	1,240	559	890	1,100	308	101	289	114
11	86	1,720	179	507	960	482	730	825	252	162	220	105
12	77	1,100	200	482	700	434	3,070	960	220	532	197	103
13	70	825	252	434	614	412	2,560	1,030	207	289	188	101
14	63	532	390	390	586	434	1,560	825	220	182	173	101
15	68	458	434	348	890	760	1,100	760	182	148	156	220
16	482	369	390	328	730	1,030	1,560	1,480	167	134	162	234
17	4,390	348	252	308	614	825	6,040	1,560	156	173	194	173
18	4,500	328	230	308	586	700	2,360	1,100	148	145	162	150
19	1,320	532	210	289	642	1,240	1,720	825	132	124	139	134
20	700	760	220	289	3,180	5,320	1,560	671	126	114	129	119
21	458	1,400	240	289	2,560	4,280	1,990	586	121	252	119	109
22	348	890	289	1,240	1,480	2,560	1,560	642	116	179	109	101
23	289	642	458	960	1,100	1,720	1,240	507	112	121	126	96
24	234	532	532	730	890	1,240	960	412	109	105	139	94
25	197	458	760	700	760	960	825	369	119	98	412	94
26	173	412	1,400	3,730	825	825	730	348	116	153	308	88
27	1,100	369	1,030	2,260	700	760	614	328	121	890	224	84
28	1,100	328	3,510	2,080	586	642	532	390	132	1,480	194	88
29	642	270	3,070	1,320	------	559	482	348	142	1,240	210	84
30	507	252	1,720	1,100	------	507	434	960	121	642	308	79
31	348	------	1,240	890	------	482	------	1,240	------	434	308	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,500	49	600	1.32	1.52
November	3,620	252	736	1.61	1.80
December	3,510	159	610	1.34	1.54
January	3,730	289	789	1.73	1.99
February	3,180	532	1,030	2.26	2.35
March	5,320	348	1,000	2.19	2.52
April	6,040	434	1,390	3.05	3.40
May	1,560	328	706	1.55	1.79
June	730	109	227	.498	.56
July	1,480	94	281	.616	.71
August	825	109	271	.594	.68
September	252	79	133	.292	.33
The year	6,040	49	645	1.41	19.19

CRAIG CREEK AT PARR, VA.

LOCATION.—Chain gage at Chesapeake & Ohio Railway bridge 60[illegible] feet from Parr, Botetourt County, and 12 miles above mouth.
DRAINAGE AREA.—331 square miles.
RECORDS AVAILABLE.—April 1925 to September 1933.
DISCHARGE.—Maximum during year, 6,840 second-feet Oct. 18 (gage height, 10.10 feet); minimum, 34 second-feet Sept. 21, 23 (gage height, 3.47 feet).
1925–33: Maximum, 16,900 second-feet Aug. 17, 1928 (gage height, 15.60 feet); minimum, 29 second-feet Oct. 1, 5, 1930 (gage height, 3.42 feet).
REMARKS.—Records good.

Discharge, in second-feet, 1932–33.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	350	212	902	540	394	394	308	940	6[illegible]	97	52
2	39	514	201	655	540	372	394	288	595	6[illegible]	79	49
3	38	394	187	568	514	329	394	329	440	6[illegible]	69	47
4	36	308	177	514	488	308	540	308	350	77	68	47
5	49	264	163	464	464	288	655	329	308	6[illegible]	79	48
6	93	238	151	417	417	264	655	1,100	257	5[illegible]	97	49
7	142	308	145	372	417	264	1,860	790	223	5[illegible]	75	50
8	82	464	139	329	1,270	464	1,360	625	201	54	64	47
9	66	720	130	394	1,360	417	980	568	177	5[illegible]	59	45
10	56	4,550	128	688	902	350	755	595	174	49	54	41
11	69	1,450	139	568	688	329	655	625	174	5[illegible]	57	40
12	68	828	157	514	568	308	1,650	540	142	5[illegible]	55	41
13	75	568	264	440	488	288	1,750	540	130	71	56	41
14	75	440	514	394	464	288	1,180	488	118	59	53	40
15	74	372	464	372	595	372	940	440	110	54	49	40
16	91	329	417	350	720	865	2,320	417	101	59	52	40
17	3,800	288	329	329	688	625	3,100	464	93	64	52	40
18	4,860	268	238	308	625	568	1,550	417	87	56	56	38
19	1,020	417	350	329	595	655	1,180	350	80	49	53	38
20	488	1,550	350	288	1,270	3,520	1,020	329	75	49	49	36
21	329	865	308	288	1,970	2,700	1,100	308	72	52	49	35
22	249	625	394	329	1,180	1,750	902	308	69	50	47	35
23	198	488	688	372	902	1,180	755	257	64	47	49	35
24	163	417	902	350	720	865	625	234	61	47	52	35
25	136	350	1,270	417	595	688	568	205	64	45	48	35
26	133	329	1,020	1,550	568	625	488	187	74	61	45	35
27	288	288	980	1,180	488	568	440	230	89	10[illegible]	43	36
28	464	257	3,520	1,450	440	488	394	253	82	249	44	35
29	350	226	3,950	1,020	------	464	350	230	82	288	50	35
30	268	216	1,750	755	------	417	329	2,200	72	20[illegible]	47	35
31	241	------	1,180	625	------	394	------	2,570	------	130	54	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,860	36	454	1.37	1.58
November	4,550	216	623	1.88	2.10
December	3,950	128	672	2.03	2.34
January	1,550	288	566	1.71	1.97
February	1,970	417	731	2.21	2.30
March	3,520	264	691	2.09	2.41
April	3,100	329	976	2.95	3.29
May	2,570	187	543	1.64	1.89
June	940	61	183	.553	.62
July	288	45	79.6	.240	.28
August	97	43	58.1	.176	.20
September	52	35	40.7	.123	.14
The year	4,860	35	466	1.41	19.12

MEADOW CREEK AT NEWCASTLE, VA.

LOCATION.—Water-stage recorder 500 feet above Newcastle-Salem highway bridge and just outside town limits of Newcastle, Craig County.
DRAINAGE AREA.—13.8 square miles.
RECORDS AVAILABLE.—September 1929 to September 1933.
DISCHARGE.—Maximum during year, 152 second-feet Oct. 17, 18, Nov. 9; minimum, 2.3 second-feet Oct. 1.
1929–33: Maximum, 242 second-feet Oct. 2, 1929 (gage height, 3.64 feet); minimum, 0.8 second-foot Sept. 4, 1930 (gage height, 0.91 foot).
REMARKS.—Records good. Discharge estimated Oct. 12–14.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	26	14	32	23	20	19	18	47	7.2	7.6	5.4
2	3.0	26	14	26	24	20	18	19	35	7.4	7.4	4.8
3	2.6	26	14	24	22	20	18	19	29	14	7.4	5.2
4	2.8	26	13	22	22	19	21	18	25	10	7.9	5.9
5	5.9	24	12	22	21	20	20	21	22	8.9	6.9	5.9
6	11	24	12	21	20	19	24	22	22	8.2	6.6	5.2
7	5.9	25	12	20	24	20	38	22	21	7.6	6.2	4.8
8	4.5	25	11	20	52	20	34	21	20	6.9	6.2	4.8
9	4.3	85	11	22	38	19	28	20	20	6.4	6.2	4.5
10	4.1	112	11	22	30	19	24	21	20	7.6	6.4	4.1
11	4.8	54	11	21	27	19	24	20	18	8.7	6.6	3.6
12	5.0	37	17	21	24	19	43	19	16	7.9	5.9	3.6
13	5.0	28	20	21	21	19	38	19	14	7.9	5.7	3.6
14	5.0	26	21	20	23	19	31	19	13	7.4	4.8	3.4
15	5.4	24	20	20	26	21	27	19	12	7.6	5.0	3.4
16	9.7	24	19	20	24	20	40	19	11	8.7	5.2	3.2
17	95	24	19	20	24	20	51	19	10	8.2	5.2	3.4
18	124	23	18	20	25	20	41	18	9.7	7.6	4.8	3.2
19	41	36	18	20	24	26	38	17	9.2	7.2	5.2	3.8
20	29	39	17	19	50	51	33	16	8.9	6.9	5.0	4.1
21	26	32	16	19	50	59	32	17	8.9	6.9	5.0	3.8
22	24	26	18	20	38	43	30	14	8.7	6.2	5.2	4.5
23	23	24	22	20	32	35	27	14	8.7	6.2	5.7	4.3
24	16	22	33	20	26	28	25	13	8.7	5.9	5.4	3.8
25	14	21	36	26	26	24	23	12	9.7	6.3	5.0	3.8
26	15	20	30	35	23	22	21	14	9.2	9.3	5.2	4.3
27	26	19	33	35	21	20	19	16	8.7	19	5.4	4.3
28	24	18	84	31	20	20	19	18	8.7	19	5.4	4.5
29	22	16	87	27	-------	19	19	20	8.7	14	7.2	5.0
30	20	15	54	25	-------	19	18	59	7.6	10	5.7	5.2
31	17	-------	43	23	-------	19	-------	78	-------	8.7	5.2	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	124	2.6	19.3	1.40	1.61
November	112	15	30.9	2.24	2.50
December	87	11	24.5	1.78	2.05
January	35	19	23.0	1.67	1.92
February	52	20	27.9	2.02	2.10
March	59	19	23.8	1.72	1.98
April	51	18	28.1	2.04	2.28
May	78	12	21.3	1.54	1.78
June	47	7.6	15.7	1.14	1.27
July	19	5.9	8.83	.640	.74
August	7.9	4.8	5.89	.427	.49
September	5.9	3.2	4.31	.312	.35
The year	124	2.6	19.4	1.41	19.07

JOHNS CREEK AT NEWCASTLE, VA.

LOCATION.—Chain gage at highway bridge 500 feet east of town limits of Newcastle, Craig County, and a quarter of a mile above mouth.
DRAINAGE AREA.—106 square miles.
RECORDS AVAILABLE.—April 1926 to September 1933.
DISCHARGE.—Maximum during year, 1,650 second-feet Dec. 28 (gage height, 7.50 feet); minimum, 8 second-feet Aug. 28, Sept. 19–24, 26, 27, 30.
1926–33: Maximum, 3,500 second-feet Aug. 16, 1928 (gage height, 9.10 feet); minimum, 7 second-feet Aug. 11, Sept. 3, 6, 7, 1930 (gage height, 2.26 feet).
REMARKS.—Records good except those estimated for Oct. 25, Dec. 17–19, Aug. 31, which are fair. Stage-discharge relation affected by ice Dec. 17, 18.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	102	54	274	170	131	146	83	234	19	21	13
2	10	96	47	234	179	116	138	77	154	17	18	11
3	9	77	43	188	170	102	131	96	116	23	19	12
4	10	62	43	162	170	89	274	77	89	18	24	16
5	15	47	41	146	154	83	234	154	72	17	21	17
6	26	50	40	131	138	77	274	274	62	16	17	15
7	24	89	38	109	162	102	605	197	55	15	14	14
8	19	116	37	102	525	154	390	170	47	14	14	10
9	13	900	35	254	317	131	295	154	48	14	14	10
10	13	565	37	215	274	102	244	215	46	14	14	10
11	11	274	40	170	224	96	215	179	43	29	13	9
12	12	197	57	170	170	96	960	170	33	28	12	9
13	12	138	162	146	154	89	490	179	34	19	11	9
14	11	116	179	131	197	96	340	170	32	16	12	9
15	13	89	146	116	234	244	274	138	27	15	11	9
16	23	77	124	109	234	274	340	170	26	17	11	9
17	317	66	100	102	215	234	455	188	24	15	13	9
18	420	66	75	96	215	197	390	154	21	14	13	9
19	116	274	90	102	224	274	340	131	19	14	11	8
20	72	317	89	89	565	740	295	116	19	14	11	8
21	51	224	83	102	490	740	295	109	17	18	10	8
22	40	170	116	146	365	525	254	89	17	15	10	8
23	33	131	274	146	274	340	215	72	17	14	10	8
24	30	109	317	131	234	274	188	66	17	13	10	8
25	29	96	390	179	215	224	170	57	21	13	10	9
26	28	77	274	365	179	215	154	57	24	14	10	8
27	89	72	274	317	154	197	131	62	28	47	9	8
28	77	62	1,560	390	138	170	109	62	22	89	8	9
29	66	57	845	254	------	154	96	66	19	77	12	9
30	55	57	490	215	------	138	89	295	21	40	14	8
31	52	------	365	188	------	131	------	390	------	25	14	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	420	9	55.1	0.520	0.60
November	900	47	159	1.50	1.67
December	1,560	35	209	1.97	2.27
January	390	89	177	1.67	1.92
February	565	138	241	2.27	2.36
March	740	77	211	1.99	2.29
April	960	89	284	2.68	2.99
May	390	57	142	1.34	1.54
June	234	17	46.8	.442	.49
July	89	13	23.0	.217	.25
August	24	8	13.3	.125	.14
September	17	8	10.0	.094	.10
The year	1,560	8	130	1.23	16.62

CATAWBA CREEK NEAR FINCASTLE, VA.

LOCATION.—Chain gage at highway bridge at Kyles Mills, 4 miles northeast of Fincastle, Botetourt County.
DRAINAGE AREA.—104 square miles.
RECORDS AVAILABLE.—December 1928 to September 1933.
DISCHARGE.—Maximum during year, about 2,460 second-feet Oct. 17 (gage height, 13.96 feet); minimum, 4 second-feet Sept. 30 (gage height, 1.50 feet). 1928–33: Maximum, that of Oct. 17, 1932; minimum, that of Sept. 30, 1933.
REMARKS.—Records fair. Discharge estimated Oct. 24, Nov. 13–22, Dec. 17–19, 1932, Jan. 9–12, 22–24, Feb. 8–19, Mar. 7–10, 1933.

Discharge, in second-feet, 1929–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	29	130	82	162	82	53	43	32	16	14	9	8
2	2,020	117	130	149	54	53	43	30	20	15	9	8
3	332	117	99	156	216	49	47	29	18	13	9	7
4	175	287	76	123	634	51	45	29	19	11	9	7
5	130	216	76	111	490	48	43	26	20	11	9	7
6	117	156	76	105	302	48	87	28	22	12	9	8
7	93	130	76	99	230	136	129	28	27	10	10	7
8	82	117	76	87	175	175	88	28	24	9	10	7
9	76	105	71	93	175	117	77	28	25	9	10	10
10	71	99	66	87	136	87	67	28	46	9	9	9
11	66	87	66	87	117	87	60	27	21	9	8	9
12	66	82	71	76	105	76	57	25	22	9	8	9
13	62	82	66	76	93	71	53	25	15	9	6	13
14	62	87	66	76	93	62	44	25	14	9	9	9
15	57	93	62	76	87	57	44	25	12	10	11	8
16	56	87	57	71	82	55	45	22	12	9	10	8
17	55	82	62	66	76	57	38	22	13	9	9	8
18	55	860	66	71	71	57	43	36	26	9	9	8
19	54	347	244	57	71	56	46	31	16	9	9	9
20	54	258	111	71	71	54	41	27	13	9	9	9
21	53	216	87	66	66	51	39	22	10	9	9	8
22	1,650	162	87	82	62	50	39	24	11	9	8	7
23	378	136	87	71	62	49	37	20	12	8	9	8
24	216	123	76	62	62	48	37	22	12	9	9	8
25	162	111	82	54	62	49	35	13	11	9	8	8
26	130	105	71	71	57	48	33	18	11	9	8	7
27	117	99	76	62	57	45	33	20	14	9	8	8
28	99	93	302	66	54	43	32	18	12	9	8	5
29	99	93	317	62	------	43	32	18	10	11	8	6
30	123	71	244	43	------	43	35	20	11	10	8	7
31	142	------	202	87	------	43	------	18	------	9	8	------

Discharge, in second-feet, of Catawba Creek near Fincastle, Va., 1929–33—Contd.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	7	8	8	13	18	72	754	54	82	20	424	45
2	7	9	8	13	18	48	328	49	59	18	904	42
3	6	8	7	14	17	47	196	39	58	16	105	39
4	6	10	7	14	16	42	168	38	45	22	66	38
5	7	9	8	544	16	40	360	38	40	24	87	32
6	8	9	71	456	17	35	360	31	47	23	66	30
7	7	8	41	162	15	35	268	37	175	23	49	30
8	7	9	21	123	16	111	238	155	67	20	40	28
9	7	9	21	58	18	105	196	136	50	18	33	26
10	7	9	15	48	25	59	162	77	49	62	30	24
11	7	9	11	46	61	57	123	67	40	62	28	25
12	8	9	11	44	72	47	105	93	40	40	35	22
13	8	11	10	39	67	44	93	82	39	31	30	20
14	8	11	10	30	67	33	77	67	37	253	30	22
15	9	10	9	24	60	38	72	58	35	77	30	28
16	12	10	8	21	50	35	67	52	82	72	28	20
17	10	10	8	30	42	26	56	48	40	53	23	21
18	7	11	8	34	41	24	43	43	33	40	18	20
19	7	10	8	30	40	25	48	40	26	37	18	19
20	8	10	9	32	41	24	48	38	20	22	46	20
21	8	8	9	30	37	24	38	77	24	20	71	22
22	9	8	8	27	33	49	88	54	49	18	970	21
23	9	8	8	25	29	59	168	123	57	18	654	21
24	7	8	9	22	27	82	175	142	37	123	317	21
25	8	8	11	24	25	77	123	136	38	35	175	20
26	9	8	17	23	22	67	99	99	37	22	130	317
27	8	8	30	22	22	62	82	67	41	18	99	202
28	9	7	27	22	47	77	67	61	30	18	76	49
29	9	8	17	20	------	268	60	49	27	18	66	16
30	9	8	14	20	------	182	57	42	22	32	53	20
31	8	------	13	18	------	129	------	45	------	18	49	------
1931–32												
1	20	16	14	714	202	57	202	82	43	22	13	10
2	20	16	13	202	188	54	230	230	38	19	16	10
3	18	16	13	156	230	53	175	202	35	18	22	10
4	16	17	16	87	474	93	99	130	32	20	20	11
5	17	16	15	66	332	76	130	93	29	20	20	11
6	15	18	14	99	244	1,160	111	93	26	22	17	11
7	16	13	13	150	230	300	105	87	24	35	14	10
8	18	20	12	394	149	230	93	82	24	30	12	10
9	22	16	13	394	123	180	508	76	28	28	13	10
10	18	15	28	317	105	149	378	111	26	23	12	10
11	17	16	25	332	99	162	317	202	28	19	12	10
12	16	18	29	149	162	175	287	347	76	16	13	10
13	16	15	26	142	123	117	230	258	46	16	12	10
14	16	14	57	105	156	117	188	149	48	15	12	10
15	28	16	35	99	149	105	162	123	46	15	12	10
16	17	16	22	82	123	105	149	117	62	26	12	10
17	16	16	22	71	117	117	142	105	71	22	12	10
18	16	15	22	62	93	287	123	111	35	20	18	10
19	16	15	16	56	93	216	105	93	24	15	18	10
20	16	16	16	53	76	202	216	82	29	13	13	10
21	16	10	20	50	71	175	93	71	55	11	12	10
22	16	14	123	50	105	474	87	66	43	12	12	13
23	14	11	93	50	82	272	82	62	34	15	11	16
24	16	26	71	46	76	202	82	53	28	14	11	14
25	15	15	23	40	76	175	66	53	20	12	10	13
26	14	12	16	38	71	149	66	50	20	13	10	13
27	16	12	16	40	71	149	66	71	25	12	10	12
28	62	11	19	38	71	508	62	82	117	12	10	12
29	47	13	22	230	71	302	51	82	30	12	10	12
30	30	16	21	202	------	230	48	71	22	12	9	11
31	20	------	23	188	------	287	------	62	------	12	10	------

Discharge, in second-feet, of Catawba Creek near Fincastle, Va., 1929–33—Contd.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1932-33												
1	11	76	66	216	175	111	99	111	202	16	14	8
2	11	82	62	216	175	111	93	93	87	18	13	7
3	11	82	62	175	156	111	87	93	66	16	14	7
4	11	76	62	188	123	105	216	105	111	16	18	7
5	53	82	56	175	123	105	188	526	82	14	14	8
6	87	76	53	142	117	105	162	287	71	16	13	7
7	33	87	51	117	130	110	426	202	66	15	10	7
8	20	82	50	123	580	130	156	188	54	14	10	6
9	14	904	45	200	332	130	202	162	55	16	9	7
10	11	694	36	280	270	120	202	175	76	14	9	7
11	10	287	42	220	240	99	188	156	62	10	8	7
12	11	216	57	170	202	99	508	149	47	10	7	7
13	11	170	99	136	175	123	458	142	40	11	8	8
14	10	130	105	117	175	188	347	130	38	11	7	7
15	11	110	111	99	220	188	317	123	39	12	8	8
16	66	100	105	93	250	162	526	111	37	12	8	8
17	2,380	90	90	93	250	130	694	111	30	10	8	7
18	1,230	90	90	87	250	111	654	93	28	9	13	6
19	410	350	100	93	250	442	616	76	25	10	16	7
20	347	500	111	93	714	1,090	378	66	26	10	16	12
21	317	300	117	87	694	490	317	66	27	9	16	7
22	287	200	123	180	317	332	287	62	25	9	15	6
23	202	162	123	200	258	272	272	66	26	10	27	7
24	87	142	188	160	230	244	244	62	25	10	15	6
25	66	117	230	202	188	230	216	57	25	10	8	6
26	46	99	244	526	175	202	202	66	46	12	5	5
27	175	76	347	426	156	188	175	82	26	33	6	5
28	156	76	544	378	130	156	149	82	258	87	7	5
29	82	71	598	216	-------	130	136	202	111	20	8	7
30	76	71	332	162	-------	117	117	332	30	14	8	5
31	82	-------	317	156	-------	111	-------	230	-------	13	9	-------

Discharge, in second-feet, of Catawba Creek near Fincastle, Va., 1929–33—Contd.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929–30					
October	2,020	29	222	2.13	2.46
November	860	71	158	1.52	1.70
December	317	57	107	1.03	1.19
January	162	43	87.7	.874	.94
February	634	54	137	1.32	1.38
March	175	43	63.3	.609	.70
April	129	32	49.7	.478	.53
May	36	13	24.6	.237	.27
June	46	10	17.2	.165	.18
July	15	8	9.8	.094	.11
August	11	6	8.8	.085	.10
September	13	5	8.0	.077	.09
The year	2,020	5	73.9	.711	9.65
1930–31					
October	12	6	7.9	.076	.09
November	11	7	8.9	.086	.10
December	71	7	14.9	.143	.16
January	544	13	65.4	.629	.73
February	72	15	34.2	.329	.34
March	268	24	65.3	.628	.72
April	754	38	157	1.51	1.68
May	155	31	68.9	.662	.76
June	175	20	47.5	.457	.51
July	253	16	41.1	.395	.46
August	970	18	153	1.47	1.70
September	317	16	42.0	.404	.45
The year	970	6	59.0	.567	7.70
1931–32					
October	62	14	20.0	.192	.22
November	26	10	15.3	.147	.16
December	123	12	28.0	.269	.31
January	714	38	152	1.46	1.68
February	474	71	144	1.38	1.49
March	1,160	53	222	2.13	2.46
April	508	48	155	1.49	1.66
May	347	50	113	1.09	1.26
June	117	20	38.8	.373	.42
July	35	11	17.8	.171	.20
August	22	9	13.2	.127	.15
September	16	10	11.0	.106	.12
The year	1,160	9	77.3	.743	10.13
1932–33					
October	2,380	10	204	1.96	2.26
November	904	71	187	1.80	2.01
December	598	36	149	1.43	1.65
January	526	87	185	1.78	2.05
February	694	117	252	2.42	2.52
March	1,090	99	201	1.93	2.22
April	694	87	288	2.77	3.09
May	526	57	142	1.37	1.58
June	258	25	61.4	.590	.66
July	87	9	15.7	.151	.17
August	27	5	11.2	.108	.12
September	12	5	6.9	.066	.07
The year	2,380	5	141	1.36	18.40

NOTE.—Records for years ending Sept. 30, 1930 to 1932, supersede those published in Water-Supply Papers 697, 712, and 727.

NORTH RIVER AT GOSHEN, VA.

LOCATION.—Chain gage at highway bridge at Goshen, Rockbridge County, 500 feet below junction of Mill Creek and Calfpasture River.
DRAINAGE AREA.—190 square miles.
RECORDS AVAILABLE.—March 1925 to September 1933.
DISCHARGE.—Maximum during year, 7,820 second-feet Oct. 17 (gage height, 9.75 feet); minimum, 8 second-feet Oct. 1–4 (gage height, 1.66 feet).
1925–33: Maximum, that of Oct. 17, 1932; minimum, 8 second-feet July 22, 1926, and numerous days in September and October 1930 and September and October 1932.
REMARKS.—Records good. Discharge estimated Dec. 16–21 because of ice.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	223	88	452	318	193	155	146	373	23	160	100
2	8	308	86	348	348	168	173	132	253	23	183	90
3	9	233	80	278	399	155	164	173	193	30	223	80
4	9	183	73	228	373	142	373	150	146	34	218	73
5	14	155	66	203	258	124	480	160	121	30	203	66
6	70	243	64	160	223	114	399	208	96	27	137	58
7	88	590	62	142	233	118	620	253	90	24	107	52
8	56	650	60	128	2,000	248	1,110	258	86	22	80	46
9	40	770	58	178	1,110	228	710	258	76	21	68	40
10	33	1,910	58	203	650	213	452	348	76	21	64	36
11	26	710	60	183	480	183	348	373	70	142	68	33
12	23	399	64	178	313	173	2,000	900	62	146	58	28
13	23	273	80	160	248	160	1,330	620	96	70	56	30
14	21	203	118	142	228	208	770	480	76	52	52	31
15	21	164	142	132	268	303	508	373	60	43	48	399
16	24	146	110	121	238	348	1,180	830	56	188	43	83
17	2,810	128	70	118	223	323	4,200	770	52	80	41	64
18	2,290	121	70	114	248	288	1,490	535	46	56	38	52
19	865	535	80	114	228	590	900	373	41	45	34	43
20	373	1,250	80	107	1,570	2,810	970	298	36	40	31	40
21	213	650	90	213	1,250	2,090	1,330	263	33	45	28	34
22	178	399	107	278	770	1,250	970	218	30	36	26	31
23	124	288	146	273	535	800	650	178	28	30	28	30
24	100	223	273	263	373	535	480	142	28	27	410	28
25	86	188	740	258	313	373	373	124	28	26	238	26
26	80	168	650	2,000	278	323	303	114	27	132	137	23
27	425	137	452	1,250	233	278	248	137	26	1,910	90	22
28	480	110	1,820	900	208	223	213	124	23	1,110	88	23
29	263	100	1,820	590	------	193	188	118	28	830	160	22
30	183	93	1,040	452	------	168	160	164	26	562	132	21
31	146	------	680	348	------	155	------	508	------	248	118	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,810	8	293	1.54	1.78
November	1,910	93	385	2.03	2.26
December	1,820	58	303	1.59	1.83
January	2,000	107	339	1.78	2.05
February	2,000	208	497	2.62	2.73
March	2,810	114	435	2.29	2.64
April	4,200	155	775	4.08	4.55
May	900	114	314	1.65	1.90
June	373	23	79.4	.418	.47
July	1,910	21	196	1.03	1.19
August	410	26	109	.574	.66
September	399	21	56.8	.299	.33
The year	4,200	8	314	1.65	22.39

NORTH RIVER AT ROCKBRIDGE BATHS, VA.

LOCATION.—Water-stage recorder 700 feet above highway bridge at Rockbridge Baths, Rockbridge County, and 1½ miles above Walker Creek.
DRAINAGE AREA.—329 square miles.
RECORDS AVAILABLE.—October 1928 to September 1933.
DISCHARGE.—Maximum during year, 6,840 second-feet Oct. 17 (gage height, 9.00 feet); minimum, 16 second-feet Oct. 4 (gage height, 0.95 foot).
1928–33: Maximum, that of Oct. 17, 1932; minimum, 11 second-feet Nov. 28, 1930 (gage height, 0. 76 foot).
REMARKS.—Records excellent except those estimated for Dec. 16–21, Jan. 3, Feb. 15–22, which are good. Stage-discharge relation affected by ice Dec. 16–21.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	420	179	736	629	364	338	283	688	44	233	179
2	17	596	164	596	748	334	338	264	470	42	264	147
3	17	475	158	490	748	306	357	347	351	55	439	126
4	16	360	150	430	682	279	976	287	279	64	338	115
5	32	294	142	392	590	256	780	298	226	52	306	108
6	158	264	131	330	445	226	800	396	188	45	220	93
7	158	713	123	298	522	334	1, 590	420	176	43	170	82
8	93	960	118	260	2, 540	612	1, 330	445	156	40	133	74
9	66	1, 450	105	270	1, 580	505	925	406	147	37	113	66
10	50	2, 990	105	420	988	440	718	653	158	37	100	59
11	42	1, 500	110	373	736	378	577	720	136	140	123	52
12	36	890	118	360	546	360	2, 540	1, 410	132	244	108	50
13	33	596	170	314	465	330	1, 940	1, 060	182	113	91	47
14	33	440	223	287	505	453	1, 170	825	147	73	86	109
15	32	347	264	268	580	712	858	702	120	62	82	1, 630
16	38	290	190	246	490	688	2, 510	1, 420	103	156	76	342
17	3, 460	271	120	236	460	624	4, 990	1, 370	93	126	76	216
18	3, 560	233	120	226	480	574	2, 360	960	82	82	70	150
19	1, 370	1, 150	130	226	440	1, 130	1, 500	712	72	62	61	113
20	812	1, 830	130	207	2, 300	3, 720	1, 590	552	66	57	57	96
21	430	1, 030	160	280	2, 000	3, 040	2, 010	490	61	70	52	78
22	298	694	182	530	1, 300	1, 860	1, 500	470	55	52	48	70
23	226	515	257	515	890	1, 250	1, 100	356	59	50	60	62
24	185	416	450	445	694	890	858	298	52	42	518	57
25	156	347	1, 100	727	596	700	718	253	55	38	360	52
26	142	326	995	2, 950	558	612	585	220	52	110	224	48
27	707	268	796	1, 960	450	515	475	226	53	1, 610	164	48
28	773	220	2, 760	1, 460	396	445	406	236	66	1, 270	128	50
29	490	194	2, 760	1, 030	------	392	351	215	57	924	176	47
30	351	188	1, 540	812	------	347	310	1, 020	50	626	233	42
31	268	------	1, 060	682	------	326	------	1, 150	------	342	200	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3, 560	16	454	1. 38	1. 59
November	2, 990	188	676	2. 05	2. 29
December	2, 760	105	484	1. 47	1. 70
January	2, 950	207	595	1. 81	2. 09
February	2, 540	396	834	2. 53	2. 64
March	3, 720	226	742	2. 26	2. 61
April	4, 990	310	1, 220	3. 71	4. 14
May	1, 420	215	596	1. 81	2. 09
June	688	50	151	. 459	. 51
July	1, 610	38	217	. 660	. 76
August	518	48	171	. 520	. 60
September	1, 630	42	147	. 447	. 50
The year	4, 990	16	521	1. 58	21. 52

NORTH RIVER NEAR LEXINGTON, VA.

LOCATION.—Water-stage recorder 300 yards above Lime Kiln highway bridge and 2½ miles above Lexington, Rockbridge County.

DRAINAGE AREA.—487 square miles.

RECORDS AVAILABLE.—August 1925 to September 1933.

DISCHARGE.—Maximum during year, 11,100 second-feet Oct. 18 (gage height, 12.63 feet); minimum, 38 second-feet Oct. 1, 2 (gage height, 1.91 feet).

1925–33: Maximum, that of Oct. 18, 1932; minimum, 34 second-feet Sept. 6, 1930, and Sept. 18, 1932.

REMARKS.—Records good except those estimated for Oct. 30 to Nov. 1, Dec. 16–21, Sept. 20–24, which are fair. Stage-discharge relation affected by ice Dec. 16–21.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	529	276	1,070	835	524	479	444	1,010	111	340	257
2	41	755	260	780	950	483	501	414	680	108	394	216
3	40	603	242	680	950	448	488	501	533	158	623	190
4	42	515	236	627	862	414	1,050	448	440	131	530	171
5	74	444	224	556	780	370	950	435	378	117	435	166
6	248	366	213	474	589	340	970	547	329	111	322	153
7	230	859	201	427	596	446	1,980	543	309	106	251	136
8	158	1,180	193	386	2,780	808	1,690	566	276	98	207	126
9	113	1,970	182	448	2,160	680	1,210	543	257	94	182	118
10	94	4,120	179	589	1,280	579	920	822	298	94	168	113
11	84	2,410	184	506	1,010	501	800	886	248	168	176	106
12	73	1,240	187	492	808	474	3,370	1,620	265	334	171	100
13	64	780	239	448	656	448	2,720	1,280	332	179	150	100
14	58	594	298	410	632	521	1,760	980	254	136	138	190
15	55	474	348	390	780	835	1,280	954	218	119	140	2,450
16	64	406	300	362	755	835	3,820	1,660	201	173	131	570
17	5,200	378	220	340	705	755	8,240	1,650	184	201	131	336
18	5,960	336	210	326	705	680	3,540	1,180	171	145	126	236
19	2,020	1,330	220	315	656	1,110	2,200	890	160	118	118	190
20	958	2,410	230	319	2,520	4,430	2,000	705	150	139	113	160
21	579	1,430	250	372	2,620	4,020	2,670	676	143	154	115	150
22	414	950	279	694	1,640	2,410	2,060	748	131	118	106	140
23	315	680	336	755	1,210	1,670	1,550	524	131	102	134	130
24	263	575	552	705	950	1,220	1,210	448	124	96	484	120
25	287	479	1,280	892	808	920	980	390	128	94	501	117
26	217	448	1,340	3,780	755	835	808	348	133	237	318	106
27	743	390	1,060	2,540	632	705	656	333	151	1,860	270	102
28	950	326	3,560	2,060	570	622	579	355	145	1,450	196	104
29	627	289	3,890	1,480	-------	552	524	444	128	1,190	256	108
30	470	285	2,310	1,140	-------	497	470	1,680	135	797	312	102
31	382	-------	1,610	950	-------	474	-------	1,700	-------	487	276	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,960	40	673	1.38	1.59
November	4,120	285	918	1.89	2.11
December	3,890	179	681	1.40	1.61
January	3,780	315	817	1.68	1.94
February	2,780	570	1,080	2.22	2.31
March	4,430	340	955	1.96	2.26
April	8,240	470	1,710	3.51	3.92
May	1,700	333	797	1.64	1.89
June	1,010	124	268	.550	.61
July	1,860	94	304	.624	.72
August	623	106	252	.517	.60
September	2,450	100	242	.497	.55
The year	8,240	40	721	1.48	20.11

KERRS CREEK NEAR LEXINGTON, VA.

LOCATION.—Chain gage at highway bridge 3½ miles northwest of Lexington, Rockbridge County, and a quarter of a mile above mouth.

DRAINAGE AREA.—34 square miles.

RECORDS AVAILABLE.—January 1927 to September 1933 (fragmentary prior to August 1930).

DISCHARGE.—Maximum during year, 1,700 second-feet Apr. 16 (gage height, 8.75 feet); minimum, 5 second-feet Oct. 1, 2, 3, 12, 13, 15 (gage height, 3.45 feet).

1927–33: Maximum, that of Apr. 16, 1933; minimum, 4 second-feet numerous days in August and September 1932.

REMARKS.—Records fair. Discharge estimated for Nov. 8 and for period of ice effect, Dec. 17–21.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	72	25	51	58	39	32	35	80	14	21	12
2	5	46	23	46	60	38	30	35	46	12	127	12
3	5	34	22	45	55	36	32	39	50	13	67	10
4	6	30	22	41	52	33	58	33	41	15	64	12
5	13	27	22	38	46	32	46	41	33	13	39	10
6	22	27	19	33	49	30	62	43	32	12	26	10
7	10	89	19	30	43	54	118	35	30	12	26	10
8	7	170	19	31	98	66	83	33	28	12	23	10
9	6	252	18	48	66	48	65	33	26	12	21	10
10	6	156	19	45	50	45	55	108	38	12	19	9
11	6	70	19	37	50	44	48	52	26	38	19	8
12	5	50	25	37	43	35	212	43	48	15	17	7
13	5	43	32	36	43	35	101	39	33	12	18	8
14	6	37	35	33	52	38	72	36	25	12	19	10
15	5	35	34	31	83	55	62	33	25	17	19	55
16	18	30	27	30	58	46	935	98	21	13	18	37
17	895	29	24	30	50	43	280	75	21	12	17	26
18	177	26	22	28	50	43	156	53	19	11	15	20
19	95	156	20	27	46	177	110	41	18	10	15	18
20	46	94	18	26	266	403	101	38	18	11	12	17
21	35	55	18	28	103	177	118	64	17	15	12	16
22	29	46	22	26	75	110	94	115	15	13	12	16
23	25	40	30	26	62	89	72	56	15	11	33	14
24	22	36	48	23	55	66	62	41	15	10	21	13
25	20	33	110	32	58	60	54	38	17	10	15	13
26	19	33	83	200	48	51	50	38	15	30	13	13
27	56	30	58	166	44	48	43	33	17	212	12	12
28	35	27	238	118	39	43	46	32	15	118	12	13
29	30	27	136	75	------	41	39	90	17	46	15	12
30	27	26	101	58	------	36	35	324	15	32	13	11
31	22	------	86	50	------	40	------	324	------	25	13	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	895	5	53.6	1.58	1.82
November	252	26	60.9	1.79	2.00
December	238	18	45.0	1.32	1.52
January	200	23	49.2	1.45	1.67
February	266	39	64.4	1.89	1.97
March	403	30	67.8	1.99	2.29
April	935	30	109	3.21	3.58
May	324	32	67.7	1.99	2.29
June	80	15	27.2	.800	.89
July	212	10	25.8	.759	.88
August	127	12	24.9	.732	.84
September	55	7	14.8	.435	.49
The year	935	5	50.7	1.49	20.24

TYE RIVER AT ROSELAND, VA.

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

DRAINAGE AREA.—68 square miles.

RECORDS AVAILABLE.—January 1927 to September 1933.

DISCHARGE.—Maximum during year, 2,240 second-feet Oct. 17 (gage height, 8.60 feet); minimum, 4 second-feet Oct. 3, 4 (gage height, 2.86 feet).

1927–33: Maximum, 2,240 second-feet Aug. 16, 1928, Oct. 17, 1932; maximum gage height, 8.65 feet Aug. 16, 1928; minimum discharge, 2 second-feet Sept. 30, Oct. 1, 1930.

REMARKS.—Records good. Discharge estimated for period of ice effect, Dec. 17–21.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	768	100	240	210	110	121	210	156	27	30	42
2	5	502	90	210	225	110	114	196	132	23	29	35
3	4	342	86	177	210	100	132	196	121	50	26	31
4	5	256	76	156	196	94	177	169	110	35	31	29
5	9	210	72	144	182	90	144	182	94	27	29	28
6	132	324	64	132	177	90	210	182	86	22	24	26
7	28	544	64	121	177	256	440	161	81	21	21	24
8	14	420	64	110	460	380	361	151	72	20	20	23
9	11	523	57	210	324	289	289	132	72	19	17	21
10	11	676	57	144	272	240	240	182	69	19	26	20
11	8	544	64	132	256	210	210	177	64	25	27	19
12	7	361	64	121	225	182	502	196	57	23	22	19
13	8	272	76	110	196	169	380	177	57	21	19	30
14	7	240	76	110	210	169	324	169	50	19	17	26
15	7	182	69	100	210	169	272	151	50	17	17	54
16	100	161	60	90	177	144	1,140	272	50	17	20	33
17	2,240	144	50	90	156	132	1,440	240	44	17	18	28
18	1,000	132	40	86	151	128	952	210	42	16	18	24
19	523	676	40	81	144	196	814	177	38	15	17	22
20	324	502	40	81	240	306	1,100	156	35	28	16	18
21	240	361	50	81	210	420	952	161	33	21	17	17
22	169	272	57	81	182	342	860	137	26	17	17	17
23	132	240	69	72	169	306	722	121	28	17	63	17
24	106	210	86	72	156	256	588	110	25	14	110	17
25	90	182	137	272	144	210	481	100	42	24	54	14
26	110	161	137	523	144	210	400	90	38	30	35	14
27	240	137	225	440	132	177	342	128	54	156	29	14
28	156	128	502	306	121	156	306	132	40	94	53	14
29	137	110	523	256	-------	144	272	210	33	64	44	19
30	114	106	380	240	-------	132	240	272	32	44	42	16
31	106	-------	289	196	-------	121	-------	182	-------	30	44	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,240	4	195	2.87	3.31
November	768	106	323	4.75	5.30
December	523	40	121	1.78	2.05
January	523	72	167	2.46	2.84
February	460	121	202	2.97	3.09
March	420	90	195	2.87	3.31
April	1,440	114	484	7.12	7.94
May	272	90	172	2.53	2.92
June	156	25	61.0	.897	1.00
July	156	14	31.4	.462	.53
August	110	16	30.7	.451	.52
September	54	14	23.7	.349	.39
The year	2,240	4	166	2.44	33.20

HARDWARE RIVER NEAR SCOTTSVILLE, VA.

LOCATION.—Chain gage at bridge on Woodridge-Scottsville highway 3 miles north of Scottsville, Albermarle County, and 9 miles above mouth.
DRAINAGE AREA.—104 square miles.
RECORDS AVAILABLE.—May 1925 to September 1933.
DISCHARGE.—Maximum during year, 3,600 second-feet Oct. 17 (gage height, 14.62 feet); minimum, 2.5 second-feet Oct. 4 (gage height, 1.30 feet).
1925–33: Maximum, 4,690 second-feet Aug. 26, 1928 (gage height, 16.62 feet); minimum, 1.5 second-feet Sept. 2, 22, 1932 (gage height, 1.20 feet).
REMARKS.—Records fair. Discharge estimated Dec. 17–20 because of ice. Low-water flow regulated by dam and gristmill above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	666	65	137	203	98	93	177	153	52	60	83
2	8	310	65	120	177	103	93	177	124	48	52	69
3	5	173	61	104	165	93	93	203	108	147	74	64
4	10	137	61	99	153	93	177	177	98	88	60	177
5	31	115	56	89	136	88	108	177	93	56	52	108
6	64	238	51	79	119	83	203	229	83	52	52	69
7	26	470	57	74	190	124	340	190	88	48	44	60
8	22	266	52	65	385	242	177	165	103	45	39	56
9	18	688	46	198	203	136	141	153	83	48	41	52
10	17	1,190	50	126	165	114	124	177	78	52	45	48
11	15	280	52	84	165	103	114	177	74	165	93	48
12	13	198	57	74	165	98	572	203	69	98	108	45
13	20	161	70	65	147	98	229	177	64	69	69	48
14	13	137	70	61	153	98	177	165	64	60	52	52
15	12	126	57	57	190	103	153	177	60	56	74	56
16	40	115	54	55	153	93	430	298	56	78	44	74
17	1,550	104	30	51	147	88	2,130	203	52	88	56	60
18	986	99	30	49	136	88	590	153	52	52	45	48
19	211	644	40	51	130	103	400	141	52	48	44	45
20	173	295	45	47	242	242	492	130	48	52	45	39
21	149	173	51	48	177	284	415	136	48	56	45	42
22	143	137	57	48	147	216	355	130	45	44	44	39
23	120	115	74	46	141	165	312	108	42	45	216	37
24	110	104	115	43	124	136	284	108	37	44	147	39
25	104	99	132	149	119	124	256	108	48	48	78	36
26	104	89	149	1,190	108	119	242	93	64	60	52	36
27	110	79	115	492	103	108	229	114	108	326	48	39
28	104	74	564	400	103	103	203	141	165	190	41	42
29	94	70	488	355	------	98	203	119	88	136	355	130
30	89	70	295	256	------	93	190	165	56	98	124	48
31	79	------	185	229	------	93	------	229	------	60	98	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,550	5	144	1.38	1.59
November	1,190	70	247	2.38	2.66
December	564	30	106	1.02	1.18
January	1,190	43	159	1.53	1.76
February	385	103	162	1.56	1.62
March	284	83	123	1.18	1.36
April	2,130	93	318	3.06	3.41
May	298	93	165	1.59	1.83
June	165	37	76.8	.738	.82
July	326	44	81.2	.781	.90
August	355	39	77.3	.743	.86
September	177	36	59.6	.573	.64
The year	2,130	5	143	1.38	18.63

SLATE RIVER NEAR ARVONIA, VA.

LOCATION.—Chain gage at Bumpers highway bridge 2 miles from Arvonia, Buckingham County, and 2 miles above mouth.
DRAINAGE AREA.—235 square miles.
RECORDS AVAILABLE.—April 1926 to September 1933.
DISCHARGE.—Maximum during year, 3,210 second-feet Oct. 17 (gage height, 10.50 feet); minimum, 6 second-feet Oct. 3 (gage height, 1.56 feet).
1926–33: Maximum, 5,300 second-feet Aug. 12, 1928 (gage height, 14.12 feet); minimum, 2 second-feet Sept. 28 to Oct. 2, 1930.
REMARKS.—Records good. Discharge estimated Dec. 18–21, Feb. 1, Apr. 1. Stage-discharge relation affected by ice Dec. 18–20. Operation of gristmill 7½ miles upstream affects low-water flow.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	1,340	104	428	250	170	170	198	372	84	73	91
2	10	902	97	294	245	160	179	198	228	78	63	74
3	6	234	91	257	222	170	170	272	189	249	73	64
4	8	151	97	222	222	151	456	238	162	96	73	69
5	8	104	91	170	200	142	282	218	146	78	58	80
6	80	118	85	160	170	142	428	456	130	68	58	55
7	142	1,070	85	151	222	179	1,340	308	123	73	52	64
8	46	346	85	110	1,030	486	516	238	146	52	49	54
9	33	984	80	516	610	245	320	218	154	56	51	53
10	19	2,210	85	516	320	190	257	218	116	56	68	49
11	20	428	97	294	269	170	222	218	109	78	138	44
12	20	294	104	245	257	160	1,480	189	109	90	90	48
13	16	234	234	200	222	160	750	189	102	78	58	50
14	18	142	257	179	269	190	372	180	90	56	68	45
15	16	118	190	179	578	346	307	162	84	56	73	58
16	21	110	151	160	400	234	678	198	90	68	73	110
17	2,620	104	134	142	294	190	2,990	208	90	346	68	62
18	2,670	97	100	142	282	179	1,340	162	84	90	68	53
19	307	1,160	80	142	282	211	486	146	78	78	63	50
20	179	678	80	142	644	486	644	138	78	73	58	46
21	110	282	100	151	578	786	902	154	78	109	57	42
22	85	190	346	151	320	516	610	272	68	78	68	32
23	74	151	546	142	269	307	428	162	78	59	109	32
24	64	125	942	125	234	245	346	138	78	58	296	35
25	60	110	984	211	200	222	296	130	84	54	96	30
26	57	160	984	1,530	190	245	272	123	123	138	73	34
27	80	234	1,250	516	179	211	238	162	123	346	73	33
28	85	142	2,160	942	160	200	228	130	218	228	68	32
29	69	110	2,670	750	-------	179	218	116	130	154	610	32
30	63	104	644	372	-------	170	208	862	90	96	170	30
31	56	-------	456	257	-------	170	-------	1,910	-------	90	104	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,670	6	228	0.970	1.12
November	2,210	97	414	1.76	1.96
December	2,670	80	433	1.84	2.12
January	1,530	110	316	1.34	1.54
February	1,030	160	326	1.39	1.45
March	786	142	246	1.05	1.21
April	2,990	170	571	2.43	2.71
May	1,910	116	275	1.17	1.35
June	372	68	125	.532	.59
July	346	52	107	.455	.52
August	610	49	100	.426	.49
September	110	30	51.7	.220	.25
The year	2,990	6	265	1.13	15.31

RIVANNA RIVER BELOW MOORES CREEK, NEAR CHARLOTTESVILLE, VA.

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

DRAINAGE AREA.—507 square miles.

RECORDS AVAILABLE.—August 1925 to September 1933. February to August 1925 at station half a mile upstream.

DISCHARGE.—Maximum during year, 13,800 second-feet Apr. 17 (gage height, 16.50 feet); minimum, 20 second-feet Oct. 2, 3 (gage height, 1.21 feet).

1925–33: Maximum, that of Apr. 17, 1933; minimum, 2 second-feet Oct. 1, 1930 (gage height, 1.19 feet).

REMARKS.—Records fair. Stage-discharge relation affected by ice Dec. 17–21.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	3,130	316	855	888	e 500	e 480	e 600	e 800	206	e 400	e 300
2	20	2,580	298	693	888	e 470	e 470	582	e 600	186	e 350	e 250
3	20	1,540	285	610	825	e 440	470	825	510	2,180	e 500	e 200
4	e 50	1,190	276	554	771	e 410	845	588	440	e 750	e 350	e 400
5	e 150	1,020	263	500	735	381	735	532	391	e 400	e 340	e 300
6	e 400	952	250	455	588	357	852	582	381	e 300	e 330	254
7	e 200	2,580	246	415	633	486	1,940	538	357	e 250	e 320	e 240
8	e 100	2,100	233	386	1,360	1,030	1,120	500	415	e 230	334	e 220
9	e 50	3,540	217	614	952	735	920	475	320	e 220	320	e 200
10	29	4,890	225	705	741	588	783	645	289	206	732	e 180
11	29	2,340	246	544	747	516	675	549	276	2,040	1,620	e 170
12	25	1,440	254	500	675	490	1,960	582	263	e 800	497	e 160
13	24	1,020	320	450	604	475	1,470	554	246	e 500	209	186
14	26	789	343	435	615	470	1,120	500	225	e 350	164	209
15	26	651	302	425	759	560	920	495	225	e 300	149	e 400
16	46	549	259	e 400	699	480	2,640	1,260	233	e 1,500	e 200	e 350
17	6,470	475	e 100	e 400	705	435	11,100	783	238	e 800	e 400	e 300
18	9,350	420	e 110	e 390	711	425	4,530	645	217	e 400	e 350	259
19	3,900	2,370	e 150	e 380	675	500	3,720	560	206	e 300	e 320	225
20	1,900	e 2,000	e 200	348	1,090	1,100	4,350	490	206	e 300	e 300	186
21	1,540	e 1,200	e 240	343	1,190	1,940	3,360	460	190	e 300	307	149
22	1,360	e 900	276	371	920	1,660	2,660	445	221	e 280	311	146
23	1,190	e 700	334	357	825	1,220	2,180	395	440	e 250	1,160	149
24	1,050	571	588	329	729	985	1,900	e 400	246	254	1,980	146
25	888	495	1,050	736	669	825	e 1,600	e 400	209	224	e 600	142
26	888	460	825	5,160	615	765	e 1,300	381	375	e 500	e 300	149
27	1,160	391	705	e 3,000	571	669	e 1,100	582	624	e 2,500	e 250	142
28	1,080	357	2,910	e 2,500	544	598	e 900	685	582	e 1,500	e 200	149
29	855	325	3,000	1,780	------	544	e 800	906	316	e 900	582	535
30	771	325	1,540	1,220	------	505	e 700	1,960	246	e 650	e 450	186
31	705	------	1,160	1,020	------	500	------	1,480	------	505	e 350	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,350	20	1,110	2.19	2.52
November	4,890	325	1,380	2.72	3.04
December	3,000	100	565	1.11	1.28
January	5,160	329	867	1.71	1.97
February	1,360	544	776	1.53	1.59
March	1,940	357	679	1.34	1.54
April	11,100	470	1,920	3.79	4.23
May	1,960	381	657	1.30	1.50
June	800	190	343	.677	.76
July	2,500	186	648	1.28	1.48
August	1,980	149	473	.933	1.08
September	535	142	229	.452	.50
The year	11,100	20	802	1.58	21.49

e Estimated.

WILLIS RIVER AT FLANAGAN MILLS, VA.

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

DRAINAGE AREA.—247 square miles.

RECORDS AVAILABLE.—April 1926 to September 1933.

DISCHARGE.—Maximum during year, 1,880 second-feet Oct. 19, Dec. 30 (gage height, 14.25 feet); minimum, 11 second-feet Oct. 2 (gage height, 2.60 feet).

1926–33: Maximum, 3,330 second-feet Mar. 7, 1929 (gage height, 19.95 feet); minimum, 2 second-feet Sept. 30, Oct. 1, 4, 12, 1930.

REMARKS.—Records good. Discharge estimated for Dec. 18–21 because of ice effect, and for July 31, Sept. 19. Flow from Trice Lake, which forms only a small part of total flow at station, is completely regulated during low stages and slightly affects natural flow at gage.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	768	138	920	314	161	149	189	1,070	55	49	177
2	12	1,590	127	531	314	149	149	177	1,050	49	44	131
3	13	1,740	122	346	299	138	149	227	240	165	44	96
4	13	1,370	117	284	254	138	226	227	153	75	52	83
5	15	212	107	254	240	127	186	201	131	55	49	75
6	217	226	98	226	212	132	186	294	110	52	39	64
7	191	958	107	199	226	132	657	308	100	91	31	61
8	103	1,150	102	173	920	212	462	240	100	44	33	55
9	45	1,110	98	445	958	226	299	201	110	35	31	46
10	33	1,370	89	787	749	155	212	177	100	33	55	42
11	27	1,250	107	730	346	127	173	189	91	39	110	39
12	27	1,190	127	378	314	127	863	177	83	153	115	42
13	24	346	212	269	299	122	1,230	177	75	240	68	37
14	20	199	314	226	362	138	1,230	142	61	58	49	42
15	24	173	378	212	711	254	479	120	58	49	58	609
16	27	149	284	212	675	254	445	120	55	46	49	1,190
17	825	132	199	173	479	186	1,590	142	58	46	42	558
18	1,700	107	150	173	346	155	1,740	131	55	55	68	153
19	1,880	585	120	161	284	155	1,760	110	55	52	75	100
20	1,790	1,110	110	161	362	346	1,070	100	55	49	44	75
21	675	1,090	130	149	513	730	958	96	52	110	35	61
22	98	749	173	173	462	768	1,110	142	46	153	39	55
23	85	240	284	199	299	549	939	165	44	75	64	46
24	66	173	531	155	254	284	491	110	44	55	153	39
25	66	155	882	199	226	226	366	91	44	42	120	42
26	62	199	996	1,070	199	226	308	115	52	68	105	44
27	89	378	1,130	1,190	199	226	253	91	87	153	75	42
28	107	314	1,350	1,480	186	199	227	91	227	153	75	39
29	89	186	1,760	1,190	-------	173	201	91	165	153	491	44
30	73	155	1,880	806	-------	149	201	575	87	100	592	44
31	59	-------	1,570	411	-------	144	-------	1,030	-------	68	558	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,880	12	273	1.11	1.28
November	1,740	107	646	2.62	2.92
December	1,880	89	445	1.80	2.08
January	1,480	149	448	1.81	2.09
February	958	186	393	1.59	1.66
March	768	122	229	.927	1.07
April	1,760	149	610	2.47	2.76
May	1,030	91	201	.814	.94
June	1,070	44	155	.628	.70
July	240	33	82.9	.336	.39
August	592	31	110	.445	.51
September	1,190	37	138	.559	.62
The year	1,880	12	309	1.25	17.02

APPOMATTOX RIVER AT FARMVILLE, VA.

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

DRAINAGE AREA.—306 square miles.

RECORDS AVAILABLE.—March 1926 to September 1933.

DISCHARGE.—Maximum during year, 4,630 second-feet Oct. 18 (gage height, 17.33 feet); minimum, 12 second-feet Oct. 1 (gage height, 2.56 feet).

1926–33: Maximum, 6,960 second-feet Aug. 12, 1928 (gage height, 21.10 feet); minimum, 6 second-feet Oct. 6, 7, 8, 1931, Sept. 20, 1932.

REMARKS.—Records good. Discharge estimated for Jan. 1–5, Feb. 7–9, 27, 28. Low-water flow regulated by dam above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	1,540	180	500	339	218	221	181	1,410	86	87	95
2	25	2,730	169	400	381	212	216	170	410	72	82	88
3	27	802	161	350	339	196	206	211	213	77	85	82
4	26	329	155	330	304	190	216	202	174	85	80	78
5	47	242	150	310	318	186	214	179	146	70	82	95
6	209	313	142	292	259	180	224	352	126	61	72	92
7	196	986	138	278	300	198	486	269	115	58	62	78
8	76	690	135	259	900	296	374	198	184	55	64	74
9	53	726	125	726	950	232	260	167	152	51	63	71
10	46	2,020	131	856	443	200	233	258	109	49	65	67
11	43	897	166	543	362	182	216	252	101	878	184	63
12	40	414	194	409	362	182	1,120	176	96	330	124	61
13	39	276	302	332	342	184	1,420	164	90	128	78	62
14	39	225	428	304	439	190	600	141	82	90	130	69
15	40	198	420	298	670	235	356	125	77	79	101	317
16	73	184	295	278	552	233	472	120	76	74	76	180
17	1,320	178	134	266	394	198	2,250	127	74	71	108	90
18	4,120	166	163	259	341	196	1,780	114	70	75	118	68
19	2,270	799	261	266	303	248	750	104	63	74	94	54
20	548	1,210	250	259	434	396	1,080	97	61	229	76	47
21	262	615	224	266	627	723	1,300	97	59	549	80	44
22	190	316	258	304	401	616	964	335	57	147	82	39
23	161	238	380	278	317	377	532	183	53	88	121	39
24	143	210	730	247	289	296	372	114	52	74	216	39
25	134	192	1,120	495	264	254	312	96	56	68	120	38
26	132	303	1,290	1,930	256	291	272	86	419	106	86	38
27	157	413	884	1,560	240	272	246	83	1,200	234	80	36
28	192	265	1,850	1,160	230	239	222	85	488	370	92	36
29	146	202	3,160	740	-------	223	206	91	212	259	247	57
30	130	195	1,770	468	-------	206	190	767	110	235	109	76
31	122	-------	758	381	-------	208	-------	2,260	-------	106	92	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,120	25	356	1.16	1.34
November	2,730	166	596	1.95	2.18
December	3,160	125	533	1.74	2.01
January	1,930	247	495	1.62	1.87
February	950	230	406	1.33	1.38
March	723	180	260	.850	.98
April	2,250	190	577	1.89	2.11
May	2,260	83	252	.824	.95
June	1,410	52	218	.712	.79
July	878	49	158	.516	.59
August	247	62	102	.333	.38
September	317	36	75.8	.248	.28
The year	4,120	25	335	1.09	14.86

APPOMATTOX RIVER AT MATTOAX, VA.

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

DRAINAGE AREA.—745 square miles.

RECORDS AVAILABLE.—August 1900 to December 1905, March 1926 to September 1933.

DISCHARGE.—Maximum during year, 5,090 second-feet Apr. 20 (gage height, 20.88 feet); minimum, 20 second-feet Oct. 1 (gage height, 3.75 feet).

1900–1905, 1926–33: Maximum, 12,200 second-feet May 25, 1901 (gage height, old datum, 24.6 feet); minimum, 11 second-feet Oct. 2, 1930 (gage height, 3.52 feet).

REMARKS.—Records good. Discharge estimated Nov. 18, 23, Jan. 1–5, Feb. 12, Mar. 5, 6.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	480	403	4,100	838	480	460	500	2,820	270	255	285
2	36	2,190	385	3,400	814	460	441	480	2,970	212	185	240
3	44	2,640	367	1,900	862	441	422	522	2,050	403	159	226
4	37	2,860	333	1,100	742	422	441	566	522	198	159	185
5	26	988	317	800	698	410	422	522	403	198	146	198
6	1,280	544	317	654	654	400	441	654	350	185	134	301
7	212	1,130	285	566	566	403	480	838	317	152	134	226
8	285	2,050	285	566	1,400	480	588	676	333	146	122	172
9	166	1,690	270	886	2,400	544	654	522	385	128	110	159
10	90	2,580	270	2,120	2,470	480	460	480	385	128	110	140
11	72	2,580	317	2,360	1,070	403	422	566	333	212	317	134
12	60	2,610	403	1,500	1,000	385	676	566	270	1,100	522	116
13	64	886	480	862	1,020	385	2,400	441	226	588	301	110
14	60	566	790	698	1,040	385	2,640	403	212	285	255	122
15	64	480	1,220	632	1,530	500	2,050	367	198	270	240	128
16	50	403	988	610	1,690	522	814	422	172	159	212	146
17	766	367	632	544	1,250	480	2,360	350	172	152	172	350
18	3,690	350	285	522	910	403	3,170	333	166	146	172	198
19	3,370	588	350	500	814	422	3,530	317	159	140	301	146
20	3,530	1,850	588	500	862	588	5,050	285	152	140	198	128
21	4,170	2,300	588	480	1,400	1,020	4,850	270	146	159	166	110
22	3,570	1,400	544	522	1,500	1,720	3,970	317	146	1,040	166	105
23	441	800	742	588	910	1,190	3,050	566	134	333	317	105
24	301	480	1,190	522	742	742	1,340	422	140	333	610	86
25	270	422	1,980	566	654	610	988	285	122	122	544	76
26	240	460	3,050	2,580	610	588	838	301	159	460	301	95
27	270	988	3,050	2,890	566	632	698	255	610	367	212	76
28	301	962	3,450	3,530	500	588	610	255	1,620	1,020	185	72
29	317	588	4,250	3,650	-------	480	566	255	1,250	814	2,190	95
30	255	441	4,330	3,650	-------	441	522	1,370	441	698	1,780	76
31	212	-------	4,810	1,100	-------	422	-------	2,750	-------	610	403	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,170	26	783	1.05	1.21
November	2,860	350	1,220	1.64	1.83
December	4,810	270	1,200	1.61	1.86
January	4,100	480	1,450	1.95	2.25
February	2,470	500	1,050	1.41	1.47
March	1,720	385	562	.754	.87
April	5,050	422	1,510	2.03	2.26
May	2,750	255	544	.730	.84
June	2,970	122	579	.777	.87
July	1,100	122	360	.483	.56
August	2,190	110	357	.479	.55
September	350	72	154	.207	.23
The year	5,050	26	812	1.09	14.80

APPOMATTOX RIVER NEAR PETERSBURG, VA.

LOCATION.—Water-stage recorder 1½ miles above Wallace Creek, 2¼ miles above dam of Virginia Electric & Power Co., and 7 miles west of Petersburg, Dinwiddie County.

DRAINAGE AREA.—1,340 square miles.

RECORDS AVAILABLE.—September 1931 to September 1933. May 1927 to September 1931 at site 1 mile downstream.

DISCHARGE.—Maximum mean daily during year, 7,500 second-feet (estimated) Oct. 21; minimum discharge, 26 second-feet Oct. 3 (gage height, 1.70 feet).

1927–33: Maximum, 8,710 second-feet Apr. 30, 1928 (gage height, 9.53 feet, old site and datum); minimum, 19 second-feet Sept. 21–27, 1932.

REMARKS.—Records good. Discharge estimated Oct. 18–22, Nov. 3–5, 8, 9, Apr. 28–30, June 28–30.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	328	722	6,330	1,690	817	710	1,030	6,690	584	624	785
2	29	1,690	680	6,110	1,490	785	740	884	5,670	366	360	506
3	27	4,800	624	5,120	1,540	748	725	916	3,580	422	301	402
4	31	5,200	584	1,640	1,390	725	703	1,000	1,500	503	216	344
5	36	3,300	545	1,280	1,270	689	696	956	799	286	202	338
6	935	970	519	1,100	1,180	668	682	1,180	652	250	202	344
7	1,820	1,300	500	959	1,080	682	849	1,460	584	220	177	396
8	971	3,000	468	857	2,420	995	986	1,410	558	194	165	328
9	507	2,800	450	1,520	3,690	1,010	1,070	1,100	578	174	148	258
10	233	3,360	432	4,020	3,800	890	899	940	624	148	135	212
11	148	3,910	493	4,350	3,250	725	740	924	552	198	825	187
12	100	3,690	680	3,690	2,480	640	825	1,000	438	434	1,180	177
13	84	2,530	828	2,040	2,370	620	2,700	916	414	1,330	900	156
14	75	1,060	1,140	1,390	2,320	640	3,690	792	344	792	545	156
15	70	785	1,750	1,240	2,420	849	3,470	715	301	420	426	165
16	70	666	1,950	1,160	2,920	1,040	1,940	652	272	238	355	180
17	253	604	1,460	1,060	2,590	899	2,920	708	268	212	317	302
18	6,600	578	892	959	1,940	778	5,230	652	258	191	268	432
19	6,100	708	638	890	1,540	725	5,450	610	245	184	277	272
20	6,400	1,800	900	849	1,590	924	6,220	558	229	137	426	198
21	7,500	2,810	1,100	817	2,590	1,390	6,690	519	209	715	408	159
22	6,400	2,650	1,060	924	2,700	2,100	7,170	500	198	1,050	344	135
23	2,000	1,360	1,180	995	2,100	2,200	6,930	597	184	1,230	678	121
24	538	884	1,800	916	1,490	1,540	4,680	836	184	430	1,550	114
25	402	729	3,470	899	1,250	1,090	1,900	631	184	277	1,360	102
26	338	701	5,230	3,690	1,120	1,000	1,600	512	202	258	996	100
27	328	1,030	5,560	5,120	1,000	1,100	1,360	578	450	671	597	100
28	402	1,460	5,780	5,890	899	1,070	1,200	645	1,600	771	396	95
29	462	1,180	6,220	5,780	------	908	1,100	687	1,500	1,650	750	97
30	432	844	6,570	5,340	------	793	1,000	2,170	900	1,190	2,810	99
31	328	------	6,570	3,910	------	732	------	6,570	------	992	1,750	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,500	27	1,410	1.05	1.21
November	5,200	328	1,890	1.41	1.57
December	6,570	432	1,960	1.46	1.68
January	6,330	817	2,610	1.95	2.25
February	3,800	899	2,000	1.49	1.55
March	2,200	620	960	.716	.83
April	7,170	682	2,500	1.87	2.09
May	6,570	500	1,050	.784	.90
June	6,690	184	1,010	.754	.84
July	1,650	148	538	.401	.46
August	2,810	135	635	.474	.55
September	785	95	242	.181	.20
The year	7,500	27	1,400	1.04	14.13

DISMAL SWAMP BASIN

LAKE DRUMMOND IN DISMAL SWAMP, VA.

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

RECORDS AVAILABLE.—May 1926 to September 1933.

EXTREMES.—Maximum gage height during year, 5.20 feet numerous days in March, April, May, August, September; minimum, 2.75 feet Nov. 6.

1926–33: Maximum gage height, 6.09 feet Oct. 7, 1929; minimum, 0.10 foot Dec. 9, 1926.

REMARKS.—Records good.

Gage height, in feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.08	2.82	2.92	3.72	5.10	5.12	5.12	5.12	4.82	4.25	4.25	5.15
2	3.05	2.85	2.90	3.78	5.10	5.10	5.12	5.15	4.88	4.25	4.25	5.15
3	3.00	2.82	2.92	3.82	5.08	5.10	5.12	5.18	4.85	4.22	4.28	5.15
4	3.00	2.82	2.90	3.88	5.05	5.10	5.15	5.10	4.85	4.22	4.25	5.15
5	2.95	2.80	2.88	3.92	5.05	5.10	5.10	5.08	4.82	4.20	4.22	5.18
6	3.18	2.78	2.90	3.95	5.05	5.12	5.12	5.10	4.80	4.18	4.25	5.15
7	3.10	2.85	2.90	4.00	5.05	5.12	5.12	5.10	4.78	4.15	4.22	5.15
8	3.08	2.92	2.90	4.00	5.00	5.12	5.12	5.12	4.80	4.10	4.22	5.18
9	3.08	2.95	2.85	4.12	5.05	5.08	5.15	5.08	4.78	4.05	4.25	5.20
10	3.05	3.02	2.90	4.15	5.02	5.08	5.15	5.10	4.78	4.08	4.15	5.20
11	3.02	2.95	2.90	4.20	5.08	5.02	5.18	5.10	4.78	4.28	4.18	5.18
12	2.98	2.90	2.92	4.28	5.08	5.05	5.18	5.10	4.70	4.25	4.25	5.15
13	2.92	2.92	2.98	4.35	5.08	5.10	5.12	5.12	4.68	4.22	4.20	5.15
14	2.92	2.95	3.05	4.42	5.08	5.15	5.10	5.10	4.68	4.22	4.20	5.18
15	2.88	2.95	3.05	4.42	5.05	5.12	5.12	5.08	4.65	4.20	4.22	5.15
16	2.85	2.95	3.10	4.50	5.05	5.08	5.15	5.10	4.62	4.20	4.18	5.20
17	2.95	2.92	3.25	4.55	5.12	5.15	5.15	5.08	4.55	4.25	4.12	5.20
18	3.08	2.92	3.32	4.60	5.05	5.12	5.10	5.05	4.52	4.22	4.12	5.05
19	3.08	2.92	3.28	4.65	5.00	5.15	5.10	5.05	4.52	4.22	4.10	5.02
20	3.05	2.90	3.25	4.70	5.02	5.10	5.08	5.05	4.42	4.25	4.10	4.95
21	3.05	2.95	3.30	4.75	5.02	5.10	5.08	5.05	4.40	4.30	4.42	4.92
22	3.00	2.98	3.30	4.82	5.05	5.15	5.10	5.02	4.35	4.30	4.50	5.00
23	2.98	2.95	3.30	4.92	5.08	5.08	5.10	5.00	4.32	4.30	4.85	5.05
24	2.95	2.92	3.32	4.90	5.10	5.12	5.08	5.00	4.30	4.25	4.95	5.05
25	2.92	2.90	3.38	5.00	5.10	5.10	5.12	4.98	4.25	4.25	4.98	5.05
26	2.90	3.00	3.40	5.00	5.10	5.15	5.10	4.90	4.45	4.22	5.05	5.05
27	2.95	3.00	3.45	5.02	5.05	5.10	5.10	4.92	4.30	4.30	5.12	5.05
28	2.92	3.00	3.52	5.05	5.05	5.15	5.10	4.88	4.28	4.28	5.18	5.05
29	2.94	2.98	3.60	5.00	-------	5.15	5.10	4.88	4.30	4.30	5.12	5.05
30	2.88	2.95	3.65	5.10	-------	5.12	5.10	4.88	4.25	4.25	5.10	5.02
31	2.85	-------	3.72	5.08	-------	5.12	-------	4.92	-------	4.25	5.12	------

CHOWAN RIVER BASIN

NOTTOWAY RIVER NEAR STONY CREEK, VA.

LOCATION.—Chain gage at bridge on Petersburg-Emporia highway 2 miles above Island Swamp Creek and 3½ miles south of Stony Creek, Sussex County.

DRAINAGE AREA.—586 square miles.

RECORDS AVAILABLE.—March 1930 to September 1933.

DISCHARGE.—Maximum during year, 3,140 second-feet Oct. 20 (gage height, 12.92 feet); minimum, 13 second-feet Oct. 5 (gage height, 0.84 foot).

1930–33: Maximum, 4,470 second-feet Mar. 7, 9, 1932 (gage height, 15.66 feet); minimum, 5 second-feet Sept. 2, 5, 1932 (gage height, 0.62 foot).

REMARKS.—Records good. Discharge estimated Oct. 30, Dec. 18–22, Feb. 1, Aug. 13, Sept. 26. Stage-discharge relation affected by ice Dec. 18–22.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	118	211	1,100	650	454	410	388	1,660	99	93	144
2	13	118	195	958	620	432	432	367	1,570	71	71	99
3	14	477	188	670	670	410	410	367	346	57	66	99
4	15	246	172	571	571	410	388	410	228	51	228	87
5	13	165	165	523	695	388	388	367	195	48	246	93
6	18	158	165	454	620	367	500	454	165	54	111	211
7	695	285	165	410	523	388	958	620	165	48	66	220
8	547	620	151	388	1,010	645	798	500	165	43	54	118
9	151	595	151	595	1,510	620	547	388	130	36	46	87
10	76	454	151	1,840	1,300	477	432	325	124	32	40	71
11	52	931	172	1,960	877	367	388	325	246	32	66	57
12	42	620	265	1,330	1,540	346	571	305	151	49	620	51
13	38	325	432	904	1,300	346	1,180	285	118	71	250	42
14	29	246	620	695	1,100	346	1,180	246	99	111	111	38
15	27	203	904	695	1,210	645	720	228	87	71	82	45
16	27	180	772	670	1,720	1,270	620	211	71	54	66	50
17	40	165	523	547	1,210	772	2,370	228	66	43	54	52
18	1,150	165	280	500	877	595	2,980	220	66	43	46	43
19	2,020	265	220	477	720	1,150	2,710	211	66	40	38	45
20	3,020	645	200	432	877	1,570	2,300	203	62	35	36	43
21	1,540	877	220	410	1,600	1,540	1,570	180	57	33	51	40
22	265	432	300	388	1,450	1,180	1,570	165	52	34	118	35
23	172	305	547	410	904	850	1,100	571	48	82	305	30
24	137	246	824	388	720	670	798	305	44	62	325	27
25	111	211	1,690	346	645	571	695	203	42	45	620	28
26	105	211	2,110	1,660	595	571	620	158	45	46	265	20
27	144	305	2,210	2,050	523	645	523	137	33	76	151	17
28	144	410	2,500	2,640	477	547	454	124	203	265	124	21
29	151	285	2,210	1,660	------	477	432	367	246	500	99	22
30	120	228	2,240	1,100	------	432	410	195	151	367	180	19
31	111	------	2,050	720	------	388	------	454	------	265	305	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,020	13	355	0.606	0.70
November	931	118	350	.597	.67
December	2,500	151	742	1.27	1.46
January	2,640	346	887	1.51	1.74
February	1,720	477	947	1.62	1.69
March	1,570	346	641	1.09	1.26
April	2,980	388	948	1.62	1.81
May	620	124	307	.542	.60
June	1,660	33	223	.381	.43
July	500	32	92.4	.158	.18
August	620	36	159	.271	.31
September	220	17	65.1	.111	.12
The year	3,020	13	473	.807	10.97

MEHERRIN RIVER NEAR LAWRENCEVILLE, VA.

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

DRAINAGE AREA.—553 square miles.

RECORDS AVAILABLE.—December 1928 to September 1933.

DISCHARGE.—Maximum during year, 5,200 second-feet Apr. 18 (gage height, 17.98 feet); minimum, 6 second-feet at times Oct. 1–6 (gage height, 0.75 foot). 1928–33: Maximum, 7,590 second-feet Mar. 7, 1932 (gage height, 23.42 feet); minimum, 5 second-feet Sept. 23, 24, 1932 (gage height, 0.70 foot).

REMARKS.—Records excellent except those for high stages and those estimated for Oct. 29 to Nov. 5, Dec. 18–22, Mar. 30 to Apr. 5, July 3–5, 18, 19, which are fair. Stage-discharge relation affected by ice Dec. 18–22. Flow regulated during low water by small dam and mill just above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	580	171	1,350	415	325	330	292	693	110	95	83
2	6	680	156	725	424	316	330	284	302	102	70	80
3	13	250	146	516	446	303	320	292	204	80	108	70
4	7	160	138	442	406	292	310	344	177	80	310	54
5	12	130	128	390	446	282	300	314	147	90	239	772
6	645	128	130	346	402	272	348	872	130	100	223	392
7	615	315	124	310	370	300	696	708	108	58	90	144
8	159	747	120	284	1,480	376	519	416	108	64	76	94
9	76	364	112	1,040	1,790	345	370	330	112	54	66	84
10	42	1,370	118	3,520	703	290	316	294	106	42	75	80
11	54	733	151	1,100	679	258	288	292	108	32	247	52
12	39	330	238	867	1,290	248	714	279	136	132	162	53
13	30	229	526	839	1,000	246	1,890	408	116	168	104	59
14	26	174	834	550	904	252	689	315	88	106	67	50
15	22	158	1,320	542	1,710	820	472	232	77	78	68	40
16	46	142	743	516	1,970	1,680	483	514	76	72	66	45
17	2,370	134	386	430	940	600	3,130	477	70	68	72	49
18	3,840	122	200	381	708	440	4,900	272	72	60	56	40
19	1,850	268	160	349	594	2,910	2,130	219	71	50	44	38
20	244	1,310	160	342	976	2,590	1,130	198	76	42	60	40
21	159	523	180	309	2,220	1,720	1,080	250	81	37	58	38
22	116	296	300	303	939	1,180	1,020	737	84	35	58	26
23	90	219	699	302	642	716	747	353	70	46	89	28
24	80	178	1,170	283	542	546	584	232	66	48	167	21
25	81	163	2,610	462	470	460	500	182	142	36	258	29
26	113	169	3,360	3,220	434	480	449	152	1,170	154	127	18
27	121	395	2,300	2,350	386	494	396	148	391	197	82	22
28	82	364	2,360	1,310	344	416	346	414	186	694	144	22
29	80	226	3,000	974	------	368	322	264	127	942	164	21
30	80	184	1,620	606	------	340	303	161	113	352	130	32
31	90	------	889	480	------	320	------	1,430	------	134	79	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,840	6	361	0.653	0.75
November	1,370	122	368	.665	.74
December	3,360	112	792	1.43	1.65
January	3,520	283	821	1.48	1.71
February	2,220	344	844	1.53	1.59
March	2,910	246	651	1.18	1.36
April	4,900	288	847	1.53	1.71
May	1,430	148	377	.682	.79
June	1,170	66	180	.325	.36
July	942	32	138	.250	.29
August	310	44	118	.213	.25
September	772	18	85.9	.155	.17
The year	4,900	6	463	.837	11.37

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 1933.

DISCHARGE.—Maximum during year, 8,990 second-feet Oct. 17 (gage height, 10.17 feet); minimum, 35 second-feet Oct. 3, 5.

1896–1933: Maximum, 16,900 second-feet Aug. 6, 1901 (gage height, 14.34 feet); practically no flow on Dec. 23, 1909, when flow was retarded by freezing (gage height, 0.0 foot). Average, 33 years (1896–97, 1898–1902, 1903–5, 1907–33), 403 second-feet.

REMARKS.—Records good. Discharge estimated for Oct. 2, 16, May 27, July 4, Sept. 24.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	545	250	910	495	422	422	332	354	93	183	84
2	45	595	227	730	470	399	399	332	270	75	123	79
3	42	446	227	620	422	376	354	495	239	126	138	84
4	40	354	216	595	422	354	470	376	212	100	135	81
5	124	311	198	545	399	332	470	470	173	84	180	86
6	483	354	198	470	332	332	446	1,110	173	73	120	81
7	206	354	183	446	399	376	1,110	850	187	73	104	68
8	115	399	183	422	2,300	422	790	675	163	66	88	63
9	75	1,110	173	595	1,180	354	648	570	147	70	77	70
10	73	2,400	180	850	790	311	570	570	147	63	101	63
11	62	1,040	220	730	702	311	495	570	147	77	117	61
12	55	702	220	675	595	311	1,260	545	132	101	109	61
13	53	520	376	570	545	270	850	595	129	77	75	60
14	50	422	545	520	520	290	702	545	117	68	88	66
15	45	376	470	495	675	376	648	520	109	64	93	64
16	160	311	399	422	648	399	2,000	470	106	135	104	68
17	8,150	311	290	422	620	399	1,700	422	109	111	109	68
18	4,320	270	354	376	620	376	1,040	399	96	84	86	63
19	1,040	545	270	376	570	620	975	332	96	70	96	61
20	620	850	311	332	975	2,000	790	311	88	73	109	56
21	446	648	246	311	1,180	1,610	730	290	77	176	98	56
22	311	520	311	332	850	1,040	702	270	84	93	104	58
23	270	446	648	332	730	790	595	242	79	73	91	53
24	246	399	850	311	648	648	545	239	88	63	84	54
25	212	354	1,520	354	595	570	520	227	135	61	77	55
26	194	332	1,110	910	545	570	470	201	111	61	73	52
27	422	354	910	790	446	520	422	250	104	850	70	56
28	376	290	3,880	910	446	495	399	332	106	495	70	56
29	290	270	3,330	730	------	446	376	212	104	495	70	60
30	242	270	1,610	620	------	422	354	376	104	290	73	56
31	216	------	1,180	545	------	399	------	648	------	176	84	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,150	40	614	1.58	1.82
November	2,400	270	537	1.38	1.54
December	3,880	173	680	1.75	2.02
January	910	311	556	1.43	1.65
February	2,300	332	683	1.76	1.83
March	2,000	270	534	1.38	1.59
April	2,000	354	708	1.82	2.03
May	1,110	201	444	1.14	1.31
June	354	77	140	.361	.40
July	850	61	146	.376	.43
August	183	70	101	.260	.30
September	86	52	64.8	.167	.19
The year	8,150	40	433	1.12	15.11

ROANOKE RIVER AT NIAGARA, VA.

LOCATION.—Water-stage recorder 200 feet below power plant of Appalachian Electric Power Co. at Niagara, Roanoke County, and 2 miles below mouth of Tinker Creek.

DRAINAGE AREA.—511 square miles.

RECORDS AVAILABLE.—July 1926 to September 1933.

DISCHARGE.—Maximum during year, 13,500 second-feet Oct. 17 (gage height, 15.36 feet); minimum, 28 second-feet July 22, 23 (gage height, 0.70 foot).

1926–33: Maximum, 16,300 second-feet Aug. 16, 1928 (gage height, 17.36 feet); minimum, 14 second-feet July 11, 1926 (gage height, 0.45 foot).

REMARKS.—Records excellent. Flow regulated at dam and water-power plant located 200 feet above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	814	372	1,220	658	527	533	472	474	166	299	134
2	92	814	347	966	644	482	499	444	364	160	236	132
3	90	604	342	872	574	490	501	628	302	251	258	156
4	90	495	340	798	573	454	573	490	317	197	340	134
5	381	436	310	724	558	446	557	752	287	166	334	133
6	552	499	326	628	488	398	585	1,440	252	142	176	134
7	255	600	263	570	574	538	1,150	1,040	268	187	213	134
8	167	588	308	549	2,340	518	926	823	260	142	167	120
9	128	2,940	260	942	1,580	464	795	719	256	154	176	112
10	120	3,500	292	1,120	1,030	410	648	724	358	194	188	122
11	126	1,660	310	913	916	403	630	749	201	156	188	122
12	120	992	334	839	797	396	1,190	719	252	173	198	114
13	102	771	483	711	695	396	1,080	780	214	159	199	103
14	102	594	596	652	645	399	874	706	206	146	134	118
15	102	548	589	602	822	506	751	636	191	132	159	120
16	260	491	494	549	838	528	2,570	622	209	262	193	110
17	8,990	443	403	528	765	461	2,730	566	174	203	150	108
18	6,500	418	436	519	774	452	1,660	486	186	156	166	108
19	1,870	1,060	424	502	696	698	1,360	448	166	148	138	108
20	1,070	1,260	402	450	1,290	2,490	1,210	436	166	145	190	102
21	804	887	377	460	1,570	2,120	1,400	392	179	198	146	100
22	604	720	428	459	1,120	1,300	1,040	396	165	109	151	100
23	534	585	701	449	936	971	906	364	150	97	153	100
24	442	534	1,050	400	849	815	815	328	168	154	148	102
25	366	505	1,850	778	720	713	721	338	212	148	143	100
26	384	488	1,410	1,230	688	708	646	308	201	223	141	98
27	646	504	1,270	1,150	620	647	606	314	176	650	185	100
28	538	420	4,810	1,220	570	603	562	396	200	678	115	99
29	463	378	4,520	950	------	552	497	320	218	706	132	99
30	378	378	2,320	828	------	532	480	451	198	437	133	99
31	404	------	1,670	745	------	505	------	835	------	288	134	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,990	90	864	1.69	1.95
November	3,500	378	831	1.63	1.82
December	4,810	260	904	1.77	2.04
January	1,230	400	752	1.47	1.70
February	2,340	488	869	1.70	1.77
March	2,490	396	675	1.32	1.52
April	2,730	480	950	1.86	2.08
May	1,440	308	585	1.14	1.31
June	474	150	232	.454	.51
July	706	97	230	.450	.52
August	340	115	183	.358	.41
September	156	98	114	.223	.25
The year	8,990	90	598	1.17	15.88

ROANOKE RIVER NEAR TOSHES, VA.

LOCATION.—Water-stage recorder three-quarters of a mile below Smith Mountain Gap, 3 miles above Pigg River, and 7 miles northwest of Toshes, Pittsylvania County.

DRAINAGE AREA.—1,020 square miles.

RECORDS AVAILABLE.—September 1925 to September 1933.

DISCHARGE.—Maximum during year, 26,500 second-feet Oct. 18 (gage height, 19.60 feet); minimum, 137 second-feet Oct. 3, 4 (gage height, 1.08 feet).

1925–33: Maximum, that of Oct. 18, 1932; minimum, 93 second-feet Sept. 19, 20, 1932 (gage height, 0.96 foot).

REMARKS.—Records excellent. Discharge estimated Dec. 20, 21.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	153	3,670	822	2,500	1,340	992	940	958	1,130	388	571	295
2	153	2,600	788	1,960	1,210	949	974	958	771	337	432	290
3	145	1,780	730	1,690	1,170	890	915	1,170	648	648	498	280
4	145	1,340	713	1,560	1,080	864	974	1,170	586	633	534	316
5	157	1,080	697	1,420	1,080	805	983	1,400	549	467	912	290
6	711	1,200	648	1,300	949	805	1,340	2,700	519	343	505	270
7	780	2,790	625	1,170	988	860	1,820	2,140	485	300	337	261
8	371	1,820	571	1,080	2,700	1,560	1,780	1,640	492	337	343	257
9	252	2,850	602	1,600	3,010	1,130	1,470	1,420	498	295	295	247
10	216	7,420	556	2,280	1,980	940	1,260	1,470	754	285	306	225
11	190	3,660	641	1,780	1,690	847	1,130	1,470	594	354	498	225
12	190	2,440	689	1,600	1,510	805	2,050	1,420	413	321	394	229
13	186	1,820	872	1,420	1,340	822	2,100	1,420	444	321	365	220
14	170	1,470	1,210	1,210	1,260	881	1,560	1,300	394	311	432	212
15	166	1,210	1,210	1,170	1,380	1,000	1,380	1,300	388	300	316	229
16	212	1,080	1,070	1,080	1,510	1,030	2,140	1,420	376	420	316	275
17	15,000	1,020	838	1,030	1,380	940	5,620	1,210	338	497	438	247
18	20,500	906	680	974	1,340	864	3,200	1,020	348	360	382	229
19	4,040	1,670	830	983	1,300	958	2,600	881	348	300	376	212
20	2,230	3,200	900	940	1,420	2,230	2,180	856	326	285	321	203
21	1,600	2,140	850	856	2,500	3,840	2,800	805	311	300	332	195
22	1,210	1,690	881	864	1,960	2,500	2,180	856	321	348	290	186
23	1,010	1,380	1,170	872	1,640	1,870	1,870	780	326	290	311	190
24	805	1,210	1,820	838	1,470	1,560	1,600	689	2,170	186	311	190
25	680	1,080	3,100	985	1,340	1,380	1,470	664	670	252	285	190
26	633	1,080	3,300	2,450	1,210	1,300	1,340	656	930	300	266	186
27	1,240	1,170	2,500	2,050	1,130	1,260	1,210	721	1,240	1,390	295	178
28	1,340	1,010	6,350	2,410	1,040	1,130	1,080	705	471	1,690	316	178
29	949	881	7,980	1,960	-------	1,050	1,070	697	438	1,470	247	238
30	856	838	4,180	1,640	-------	966	974	730	438	1,080	295	216
31	705	-------	3,100	1,420	-------	958	-------	1,260	-------	667	295	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	20,500	145	1,840	1.80	2.08
November	2,420	838	1,920	1.88	2.10
December	7,980	556	1,640	1.61	1.86
January	2,500	838	1,450	1.42	1.64
February	3,010	949	1,500	1.47	1.53
March	3,840	805	1,230	1.21	1.40
April	5,620	915	1,730	1.70	1.90
May	2,700	656	1,160	1.14	1.31
June	2,170	311	592	.580	.65
July	1,690	186	498	.488	.56
August	912	247	381	.374	.43
September	316	178	232	.227	.25
The year	20,500	145	1,180	1.16	15.71

ROANOKE RIVER AT ALTAVISTA, VA.

LOCATION.—Water-stage recorder at highway bridge a quarter of a mile south of Altavista, Campbell County.
DRAINAGE AREA.—1,800 square miles.
RECORDS AVAILABLE.—August 1930 to September 1933.
DISCHARGE.—Maximum during year, 32,200 second-feet Oct. 18 (gage height, 29.30 feet); minimum (estimated), 230 second-feet Oct. 3, 4.
1930–33: Maximum, that of Oct. 18, 1932; minimum, 151 second-feet Sept. 1, 1932 (gage height, 1.82 feet).
REMARKS.—Records excellent except those estimated, Oct. 1–14, 23, 25, 26, June 12–17, 19–22, July 19–23, 25–27, which are fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	4,700	1,200	4,470	2,070	1,670	1,630	1,750	2,030	758	960	544
2	250	5,620	1,230	3,300	1,950	1,590	1,670	1,750	1,440	680	870	536
3	230	2,710	1,120	2,870	1,910	1,510	1,630	2,150	1,200	845	758	504
4	230	1,950	1,090	2,550	1,750	1,480	1,670	2,150	1,060	1,370	990	487
5	250	1,590	1,020	2,390	1,790	1,440	1,710	2,060	1,020	900	1,230	655
6	820	1,530	990	2,150	1,630	1,440	1,870	5,190	960	680	1,200	585
7	1,030	4,860	930	1,990	1,590	1,440	3,210	3,930	930	608	705	508
8	730	3,390	900	1,830	3,300	2,470	2,950	2,950	900	576	608	479
9	470	3,020	870	2,410	4,920	2,230	2,470	2,470	870	572	572	467
10	370	10,100	870	3,840	3,210	1,830	2,150	2,550	1,060	518	540	427
11	320	5,590	960	3,030	2,710	1,590	1,910	2,630	1,440	562	630	399
12	300	3,480	1,090	2,550	2,470	1,510	4,340	2,480	900	630	785	395
13	290	2,550	1,300	2,310	2,230	1,480	3,930	2,710	820	585	680	395
14	300	2,150	1,830	2,030	2,070	1,480	2,790	2,230	800	558	705	375
15	308	1,750	2,030	1,910	2,230	2,150	2,390	2,070	740	526	705	383
16	326	1,630	1,750	1,790	2,550	2,230	3,180	3,210	700	562	580	475
17	14,000	1,480	1,400	1,710	2,310	1,910	8,880	2,630	710	730	655	491
18	30,900	1,400	1,060	1,630	2,150	1,710	5,480	1,950	655	990	997	419
19	10,700	3,860	1,340	1,590	2,150	1,670	4,290	1,710	650	620	930	387
20	4,020	6,370	1,480	1,590	2,230	2,390	3,840	1,550	620	540	705	355
21	2,710	3,480	1,370	1,480	3,360	5,890	5,960	1,510	610	580	608	367
22	2,150	2,550	1,400	1,440	3,210	4,830	4,650	1,750	590	600	576	319
23	1,800	2,150	1,750	1,440	2,630	3,300	3,660	1,510	608	540	580	288
24	1,480	1,790	2,710	1,440	2,390	2,630	3,030	1,370	2,870	471	630	304
25	1,300	1,630	4,380	1,450	2,150	2,310	2,790	1,260	1,950	460	580	304
26	1,200	1,710	5,580	3,840	1,990	2,150	2,470	1,230	1,110	580	513	312
27	1,750	1,870	4,020	3,480	1,870	2,030	2,230	1,300	2,210	1,800	522	300
28	2,070	1,590	9,480	3,750	1,750	1,910	2,070	1,370	1,130	2,550	567	292
29	1,550	1,400	14,900	3,120	-------	1,830	1,990	1,300	812	2,310	522	319
30	1,260	1,230	7,180	2,550	-------	1,710	1,870	1,440	785	1,790	479	367
31	1,090	-------	5,100	2,310	-------	1,630	-------	2,030	-------	1,340	540	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	30,900	230	2,720	1.51	1.74
November	10,100	1,230	2,970	1.65	1.84
December	14,900	870	2,660	1.48	1.71
January	4,470	1,440	2,390	1.33	1.53
February	4,920	1,590	2,390	1.33	1.38
March	5,890	1,440	2,110	1.17	1.35
April	8,880	1,630	3,090	1.72	1.92
May	5,190	1,230	2,140	1.19	1.37
June	2,870	590	1,070	.594	.66
July	2,550	460	866	.481	.55
August	1,230	479	707	.393	.45
September	655	288	415	.231	.26
The year	30,900	230	1,960	1.09	14.76

ROANOKE RIVER AT BROOKNEAL, VA.

LOCATION.—Water-stage recorder at highway bridge at Virginian Railway station at Brookneal, Campbell County, 2¾ miles above Falling River.
DRAINAGE AREA.—2,420 square miles.
RECORDS AVAILABLE.—April 1923 to September 1933.
DISCHARGE.—Maximum during year, 34,400 second-feet Oct. 18 (gage height, 31.64 feet); minimum, 294 second-feet Oct. 5 (gage height, 2.84 feet).
1923–33: Maximum, 42,800 second-feet (revised) Aug. 12, 1928 (gage height, 37.15 feet); minimum (estimated), 191 second-feet Sept. 2, 1932. Average, 10 years, 2,120 second-feet.
REMARKS.—Records good. Discharge estimated Oct. 24, Dec. 8–13, Jan. 4, 6–25, Aug. 30.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	398	3,060	1,650	6,340	2,990	2,160	2,000	2,160	2,640	972	1,400	784
2	343	7,470	1,580	4,670	2,810	2,080	2,000	2,160	2,000	890	1,210	784
3	306	3,890	1,510	3,980	2,640	2,000	2,000	2,480	1,620	863	1,090	758
4	306	2,720	1,440	3,400	2,480	1,860	2,000	2,810	1,440	1,470	1,240	733
5	319	2,240	1,440	3,170	2,400	1,860	2,000	2,560	1,340	1,240	1,240	758
6	619	2,170	1,400	2,800	2,320	1,790	2,000	5,360	1,300	945	1,580	865
7	1,030	5,550	1,340	2,600	2,240	1,860	3,810	5,070	1,240	835	1,120	683
8	1,180	5,480	1,200	2,400	4,470	2,770	3,890	3,710	1,210	730	865	634
9	730	3,920	1,200	3,400	6,340	3,170	3,170	3,080	1,180	730	810	610
10	513	10,400	1,200	5,300	4,570	2,400	2,640	2,900	1,150	705	784	586
11	450	8,050	1,300	4,400	3,620	2,000	2,400	3,260	1,720	705	784	553
12	389	4,670	1,400	3,500	3,350	1,860	5,200	2,990	1,340	835	948	516
13	377	3,350	1,700	3,000	3,080	1,860	5,900	3,530	1,090	780	920	516
14	364	2,720	2,240	2,700	2,900	1,860	3,800	2,720	1,150	730	975	521
15	360	2,320	2,640	2,500	3,170	2,240	3,080	2,480	1,000	680	975	516
16	394	1,930	2,320	2,400	3,440	2,810	3,360	2,950	945	705	865	530
17	10,700	1,860	2,080	2,300	3,260	2,240	11,500	3,440	918	835	784	596
18	32,800	1,760	1,400	2,200	2,990	2,080	7,880	2,480	918	1,100	1,000	553
19	22,100	2,720	1,480	2,100	2,810	2,240	5,470	2,080	862	890	1,210	493
20	5,660	8,480	1,930	2,000	2,990	2,810	5,570	1,860	835	730	975	466
21	3,440	4,970	1,860	1,900	4,170	6,160	8,900	1,790	808	807	865	430
22	2,560	3,530	1,860	1,900	4,270	6,780	7,110	1,930	755	730	810	440
23	2,030	2,810	2,240	1,900	3,530	4,270	5,070	2,000	755	730	784	408
24	1,800	2,400	3,260	1,800	3,080	3,440	4,070	1,720	1,990	680	838	391
25	1,640	2,080	5,380	1,900	2,810	2,990	3,620	1,620	3,080	582	865	400
26	1,500	2,160	7,880	4,970	2,640	2,720	3,170	1,510	1,510	797	758	400
27	1,610	2,320	5,900	5,570	2,400	2,560	2,810	1,480	1,970	1,680	708	400
28	2,390	2,160	11,000	5,370	2,240	2,400	2,560	1,720	1,880	3,370	733	395
29	2,170	1,860	20,700	4,770	-------	2,240	2,400	1,720	1,150	2,960	758	422
30	1,750	1,680	11,000	3,800	-------	2,080	2,320	2,430	972	2,320	750	457
31	1,580	-------	6,780	3,350	-------	2,000	-------	3,350	-------	1,820	758	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	32,800	306	3,280	1.36	1.57
November	10,400	1,680	3,690	1.52	1.70
December	20,700	1,200	3,560	1.47	1.70
January	6,340	1,800	3,300	1.36	1.57
February	6,340	2,240	3,210	1.33	1.38
March	6,780	1,790	2,630	1.09	1.26
April	11,500	2,000	4,060	1.68	1.87
May	5,360	1,480	2,620	1.08	1.24
June	3,080	755	1,360	.562	.63
July	3,370	582	1,090	.450	.52
August	1,580	708	948	.392	.45
September	865	391	553	.229	.26
The year	32,800	306	2,520	1.04	14.15

ROANOKE RIVER NEAR CLOVER, VA.

LOCATION.—Water-stage recorder 3½ miles below mouth of Roanoke Creek and 6 miles east of Clover, Halifax County.
DRAINAGE AREA.—3,230 square miles.
RECORDS AVAILABLE.—August 1929 to September 1933.
DISCHARGE.—Maximum during year, 54,300 second-feet Oct. 19 (gage height, 23.19 feet); minimum, 350 second-feet Oct. 4 (gage height, 0.90 foot).
1929–33: Maximum, that of Oct. 19, 1932; minimum, 204 second-feet Sept. 3, 1932 (gage height, 0.50 foot).
REMARKS.—Records excellent. Discharge estimated July 31 to Aug. 5.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	506	5,440	2,200	8,640	3,570	2,600	2,500	2,800	5,710	1,240	2,100	863
2	466	11,300	2,100	6,430	3,460	2,600	2,600	2,700	3,680	1,200	1,700	922
3	400	8,560	2,000	5,000	3,240	2,450	2,600	2,910	2,450	1,380	1,500	907
4	355	4,540	1,950	4,340	3,020	2,400	2,500	3,350	2,000	1,510	1,700	885
5	370	3,350	1,900	3,900	3,020	2,300	2,600	3,240	1,800	1,850	1,700	1,000
6	766	3,160	1,800	3,570	2,800	2,250	2,600	4,670	1,700	1,420	1,800	984
7	1,510	6,260	1,750	3,240	2,920	2,200	3,310	6,670	1,600	1,120	1,650	1,080
8	1,440	8,420	1,700	3,020	5,830	2,600	5,000	4,780	1,560	1,000	1,160	892
9	1,280	6,070	1,650	4,750	7,630	3,680	4,120	3,790	1,650	922	953	805
10	878	9,030	1,600	7,270	6,550	3,130	3,460	3,460	1,510	922	922	755
11	652	12,900	1,700	6,430	4,670	2,600	3,020	3,680	1,600	1,160	907	713
12	574	7,410	1,850	4,780	4,340	2,350	4,570	3,460	2,000	1,380	1,040	658
13	489	4,870	2,250	3,900	4,010	2,300	8,900	4,010	1,560	1,240	1,160	619
14	471	3,790	3,130	3,460	4,010	2,300	6,070	3,570	1,420	1,080	1,120	625
15	449	3,240	3,900	3,240	5,000	3,240	4,230	3,020	1,420	953	1,240	658
16	483	2,800	3,460	3,020	4,780	3,350	4,120	3,020	1,240	892	1,160	672
17	4,740	2,600	2,800	2,800	4,230	3,130	11,300	4,010	1,240	907	1,120	692
18	22,000	2,400	2,300	2,700	3,790	2,700	14,300	3,460	1,200	1,080	1,510	790
19	47,600	3,420	2,000	2,600	3,460	3,680	8,640	2,700	1,160	1,380	1,460	720
20	36,900	8,590	2,350	2,600	3,900	4,560	6,790	2,450	1,120	1,080	1,420	638
21	7,820	8,100	2,450	2,500	5,000	6,070	9,160	2,250	1,080	1,280	1,120	587
22	3,340	4,960	2,450	2,400	5,470	9,290	10,300	2,300	1,040	1,330	1,040	537
23	2,600	3,680	2,910	2,400	4,450	6,430	7,030	2,500	969	1,000	1,000	537
24	2,300	3,130	4,090	2,350	3,790	4,560	5,350	2,250	992	945	1,330	500
25	2,050	2,700	7,090	2,500	3,460	3,680	4,560	2,050	3,320	919	1,200	466
26	1,800	3,240	11,500	5,830	3,240	3,460	4,120	1,950	2,450	1,230	1,080	466
27	1,900	3,460	9,900	7,750	3,020	3,240	3,680	1,850	2,150	4,030	922	477
28	2,250	3,130	12,000	7,630	2,800	3,020	3,350	1,900	2,910	3,700	834	417
29	2,910	2,600	19,600	6,550	-------	2,800	3,130	2,100	1,900	5,540	855	518
30	2,300	2,350	24,300	4,890	-------	2,700	3,020	4,170	1,420	3,570	885	686
31	2,000	-------	13,200	4,010	-------	2,600	-------	7,360	-------	2,700	819	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	47,600	355	4,950	1.53	1.76
November	12,900	2,350	5,180	1.60	1.78
December	24,300	1,600	4,960	1.54	1.78
January	8,640	2,350	4,340	1.34	1.54
February	7,630	2,800	4,120	1.28	1.33
March	9,290	2,200	3,360	1.04	1.20
April	14,300	2,500	5,230	1.62	1.81
May	7,360	1,850	3,300	1.02	1.18
June	5,710	969	1,860	.576	.64
July	5,540	892	1,610	.498	.57
August	2,100	819	1,240	.384	.44
September	1,080	466	704	.218	.24
The year	47,600	355	3,400	1.05	14.27

ROANOKE RIVER AT ROANOKE RAPIDS, N.C.

LOCATION.—Water-stage recorder 1½ miles below State highway bridge at Roanoke Rapids, Halifax County.
DRAINAGE AREA.—8,410 square miles.
RECORDS AVAILABLE.—February 1930 to September 1933.
DISCHARGE.—Maximum during year, 90,400 second-feet Oct. 21 (gage height, 20.84 feet); minimum, 768 second-feet Sept. 30 (gage height, 1.64 feet).
1930–33: Maximum, that of Oct. 21, 1932; minimum, 458 second-feet Sept. 21, 1932 (gage height, 1.25 feet).
REMARKS.—Records good except those estimated Sept. 2–12, which are fair. Flow regulated from power operations above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,320	4,930	7,100	34,700	9,730	7,850	7,100	7,100	20,800	3,850	6,970	1,860
2	2,000	13,200	6,110	21,300	8,770	7,250	6,950	6,950	18,900	3,160	6,110	1,850
3	1,860	29,000	5,700	17,300	8,450	6,950	6,390	6,390	11,300	3,650	4,140	1,900
4	1,380	23,800	5,430	13,200	8,150	6,810	6,670	6,810	6,950	3,650	5,250	2,300
5	1,210	11,700	5,430	11,400	8,150	6,530	6,950	7,550	5,300	3,350	7,150	2,750
6	1,260	8,450	4,810	10,400	8,150	6,110	6,810	10,900	4,810	2,890	5,060	3,800
7	2,060	7,550	4,580	9,410	7,850	6,250	8,150	17,300	4,050	2,980	4,700	4,900
8	3,110	15,600	4,470	8,770	8,770	6,530	9,090	19,900	4,050	2,540	5,300	4,400
9	3,850	18,600	4,470	8,770	17,700	6,530	10,700	13,200	3,650	2,290	3,530	3,600
10	3,950	16,900	4,260	19,900	20,400	8,450	10,000	10,000	3,850	2,220	2,710	2,900
11	2,800	22,100	4,360	22,200	16,400	9,090	8,150	8,770	4,150	2,290	2,450	2,300
12	2,000	25,400	4,810	19,000	14,000	7,250	8,150	8,450	3,950	2,370	2,800	1,830
13	1,730	15,000	7,070	16,400	13,600	6,530	13,600	8,770	4,700	2,450	2,370	1,730
14	1,480	10,400	10,700	13,200	13,200	6,110	21,700	9,090	4,260	5,430	2,370	1,930
15	1,310	8,450	16,000	11,800	15,200	6,110	15,600	10,400	3,750	3,850	2,290	1,730
16	1,260	7,550	16,000	10,700	24,100	9,440	11,400	9,090	3,350	2,890	2,710	1,730
17	1,610	6,530	14,400	9,730	21,700	10,000	19,600	11,100	3,350	2,450	3,160	1,670
18	11,000	5,430	11,100	9,090	17,700	9,410	32,600	10,700	2,890	2,220	3,160	1,610
19	43,700	6,110	8,150	8,150	13,600	10,700	28,500	9,090	2,710	2,220	4,510	1,510
20	64,800	9,950	6,950	7,850	12,200	17,300	20,400	7,100	2,710	2,070	6,810	1,670
21	86,300	19,000	7,400	7,400	16,400	20,400	18,600	6,250	2,620	2,800	4,580	1,800
22	45,300	19,900	7,850	7,100	18,100	22,700	22,200	6,810	2,290	2,450	3,950	1,430
23	10,100	11,800	9,090	6,810	17,300	25,100	20,400	7,850	2,220	2,980	3,260	1,410
24	6,950	9,090	12,900	6,530	13,200	16,900	15,200	8,450	2,220	2,800	3,160	1,330
25	5,300	7,550	19,500	6,810	11,100	12,200	12,500	7,100	2,290	2,620	3,350	1,200
26	4,930	6,670	31,100	13,700	10,000	10,400	10,700	5,430	2,600	2,540	3,450	1,270
27	4,810	9,610	38,500	16,400	9,410	9,410	9,730	5,050	6,530	2,710	2,980	1,250
28	4,700	13,600	38,500	16,900	8,450	9,090	8,770	4,930	5,560	8,880	2,980	1,060
29	5,300	11,800	41,900	16,000	-------	8,450	8,150	5,300	5,050	9,560	2,220	930
30	7,550	9,090	52,800	13,600	-------	7,850	7,550	4,980	5,050	10,100	2,070	1,000
31	6,110	-------	57,500	11,100	-------	7,400	-------	8,480	-------	8,450	1,730	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	86,300	1,210	11,000	1.31	1.51
November	29,000	4,930	12,800	1.52	1.70
December	57,500	4,260	15,100	1.80	2.08
January	34,700	6,530	13,100	1.56	1.80
February	24,100	7,850	13,300	1.58	1.64
March	25,100	6,110	10,000	1.19	1.37
April	32,600	6,390	13,100	1.56	1.74
May	19,900	4,930	8,690	1.03	1.19
June	20,800	2,220	5,200	.618	.69
July	10,100	2,070	3,700	.439	.51
August	7,150	1,730	3,780	.449	.52
September	4,900	930	2,020	.240	.27
The year	86,300	930	9,300	1.11	15.02

BLACKWATER RIVER NEAR UNION HALL, VA.

LOCATION.—Water-stage recorder at highway bridge at Kemps Ford, 1½ miles above Gills Creek and 4 miles north of Union Hall, Franklin County.
DRAINAGE AREA.—208 square miles.
RECORDS AVAILABLE.—March 1925 to September 1933.
DISCHARGE.—Maximum during year, 9,520 second-feet Oct. 17 (gage height, 15.27 feet); minimum, 24 second-feet Oct. 3 (gage height, 1.50 feet).
1925–33: Maximum, 10,800 second-feet Aug. 11, 1928; minimum, 13 second-feet Sept. 20, 1932 (gage height, 1.42 feet).
REMARKS.—Records excellent except those estimated, Dec. 26–28, Apr. 9 to May 2, Aug. 15–18, which are fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	1,380	200	444	242	190	193	190	197	124	130	83
2	30	580	193	364	238	182	197	180	172	112	125	83
3	26	343	190	335	227	172	197	274	165	252	180	78
4	26	270	186	318	223	168	197	234	158	182	248	81
5	37	242	182	294	238	168	182	414	152	127	278	76
6	101	263	175	274	208	165	331	578	149	112	118	76
7	124	730	168	258	237	242	382	343	149	1[illegible]	96	73
8	60	402	168	250	465	390	278	294	149	1[illegible]	85	73
9	47	1,050	165	394	363	254	230	270	146	98	80	71
10	40	1,320	168	426	294	223	200	318	146	93	78	69
11	40	584	179	318	282	193	190	318	146	98	196	65
12	38	426	190	282	262	190	360	282	149	1[illegible]	115	60
13	35	330	238	258	234	186	420	270	146	1[illegible]	88	60
14	34	286	258	254	231	226	270	242	142	96	127	60
15	35	258	227	246	258	223	227	304	139	96	100	78
16	65	238	212	238	254	204	420	364	142	124	90	96
17	6,150	227	152	227	231	186	1,200	250	136	130	120	76
18	5,140	212	200	215	212	182	630	223	130	106	100	69
19	780	935	254	208	204	208	500	219	127	98	127	62
20	390	604	262	208	254	302	440	208	124	96	104	54
21	294	368	238	193	290	488	540	218	118	112	85	54
22	223	306	234	197	250	314	364	222	112	109	83	51
23	197	274	330	197	234	270	400	193	158	90	83	51
24	172	254	364	190	219	254	310	182	568	85	83	53
25	165	234	546	252	208	227	310	179	215	85	78	51
26	158	242	750	413	212	219	290	182	280	95	69	51
27	343	286	600	330	193	208	250	179	326	6[illegible]	80	49
28	226	231	1,600	401	190	204	210	182	152	4[illegible]	80	66
29	204	219	1,140	306	-------	197	204	175	155	3[illegible]	78	67
30	182	208	624	270	-------	190	200	240	136	261	90	69
31	172	-------	528	258	-------	186	-------	290	-------	150	85	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,150	26	502	2.41	2.78
November	1,380	208	443	2.13	2.38
December	1,600	165	352	1.69	1.95
January	444	190	284	1.37	1.58
February	465	190	248	1.19	1.24
March	488	165	226	1.09	1.26
April	1,200	182	337	1.62	1.81
May	578	175	259	1.25	1.44
June	568	112	173	.832	.93
July	609	85	151	.726	.84
August	278	69	112	.538	.62
September	96	49	66.8	.321	.36
The year	6,150	26	263	1.26	17.1[illegible]

PIGG RIVER NEAR TOSHES, VA.

LOCATION.—Water-stage recorder 0.4 mile below Fryingpan Creek and 1.7 miles northwest of Toshes, Pittsylvania County.
DRAINAGE AREA.—394 square miles.
RECORDS AVAILABLE.—August 1930 to September 1933.
DISCHARGE.—Maximum during year, 10,000 second-feet Oct. 17 (gage height, 21.98 feet); minimum, 50 second-feet Oct. 3 (gage height, 2.60 feet).
1930–33: Maximum, that of Oct. 17, 1932; minimum, 22 second-feet Aug. 31, 1932 (gage height, 2.32 feet).
REMARKS.—Records good. Stage-discharge relation affected by ice Dec. 17–19.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	2,100	220	739	327	313	306	333	265	175	170	164
2	70	919	208	530	322	304	319	336	242	125	166	153
3	54	394	192	466	313	290	311	564	225	234	224	132
4	66	291	192	434	303	295	306	419	218	202	276	158
5	66	253	188	404	319	290	306	789	211	149	310	264
6	164	338	186	374	287	277	447	1,520	197	149	179	158
7	178	1,200	175	341	341	344	777	641	220	138	143	138
8	118	513	179	324	838	662	466	476	202	132	141	134
9	84	858	158	645	584	419	398	400	202	123	138	125
10	82	1,560	183	702	401	356	350	596	206	126	138	109
11	84	558	208	482	404	311	336	550	179	139	141	98
12	73	376	242	419	380	306	1,500	415	188	160	139	105
13	80	301	320	374	359	298	780	391	192	134	134	98
14	71	275	400	359	380	338	530	336	177	121	132	105
15	81	235	385	327	482	886	450	449	166	121	160	186
16	117	215	304	311	482	514	756	1,440	175	118	158	170
17	6,600	221	200	308	404	404	1,040	556	166	416	269	114
18	6,500	212	250	298	383	353	645	400	158	190	579	101
19	831	1,420	350	298	368	520	755	356	160	136	247	89
20	467	1,080	334	290	568	615	636	306	149	130	170	103
21	350	460	334	282	626	1,340	733	346	143	139	160	92
22	274	342	308	277	466	740	615	444	139	132	155	62
23	225	296	430	282	404	530	514	304	134	111	160	67
24	213	257	650	269	374	450	482	278	475	111	164	72
25	206	237	900	364	341	419	450	267	244	105	141	78
26	194	320	870	625	350	419	401	257	175	162	136	71
27	359	320	731	474	316	365	359	262	224	434	166	76
28	381	270	2,340	514	306	350	356	254	177	362	141	64
29	267	235	2,020	419	------	324	350	250	160	442	130	73
30	216	227	879	380	------	313	338	374	164	257	145	80
31	190	------	769	336	------	316	------	364	------	236	155	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,600	54	604	1.53	1.76
November	2,100	212	543	1.38	1.54
December	2,340	158	487	1.24	1.43
January	739	269	408	1.04	1.20
February	838	287	408	1.04	1.08
March	1,340	277	441	1.12	1.29
April	1,500	306	534	1.36	1.52
May	1,520	250	473	1.20	1.38
June	475	134	198	.503	.56
July	442	105	184	.467	.54
August	579	130	183	.464	.53
September	264	62	115	.292	.33
The year	6,600	54	382	.970	13.16

GOOSE CREEK NEAR HUDDLESTON, VA.

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

DRAINAGE AREA.—187 square miles.

RECORDS AVAILABLE.—September 1930 to September 1933. March 1925 to September 1927 (gage heights only) at a site a quarter of a mile downstream.

DISCHARGE.—Maximum stage during year, 18.15 feet Oct. 17 (discharge not determined); minimum discharge, 7 second-feet Sept. 20, 22 (gage height, 0.88 foot).

1930–33: Maximum stage, that of Oct. 17, 1932; minimum discharge, 3 second-feet Aug. 31, 1932 (gage height, 0.74 foot).

REMARKS.—Records good except those for high stages, which are fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	903	97	448	186	130	130	138	116	58	55	47
2	24	397	91	356	178	119	126	133	96	51	51	42
3	33	243	91	288	155	114	121	233	89	254	79	38
4	30	181	89	252	150	112	138	144	85	85	69	37
5	65	150	85	222	150	110	126	326	80	61	67	38
6	107	137	83	194	124	108	248	395	80	56	48	38
7	72	834	83	173	175	138	359	258	82	53	44	36
8	46	450	82	155	579	194	215	200	76	51	42	33
9	40	418	76	411	362	140	176	167	74	47	41	30
10	38	852	82	364	252	128	158	180	294	47	45	26
11	38	420	87	266	215	119	145	154	151	50	59	28
12	36	311	93	228	176	119	406	159	96	51	48	28
13	33	220	117	183	165	121	241	162	114	48	42	25
14	36	155	130	160	163	124	199	144	80	44	51	30
15	35	117	114	150	209	158	176	128	76	53	44	32
16	54	102	97	140	191	135	702	168	74	78	41	38
17	------	95	42	133	170	124	1,120	170	70	53	48	28
18	------	87	124	130	168	119	560	123	67	48	45	29
19	422	921	176	133	152	138	455	113	65	45	42	21
20	249	595	145	126	257	314	569	108	63	44	51	19
21	181	366	130	119	280	679	------	108	59	45	41	20
22	138	246	138	124	215	362	794	151	56	41	40	19
23	104	183	215	119	191	252	530	108	55	37	48	20
24	82	142	272	112	168	199	395	113	333	36	50	21
25	69	124	550	325	158	170	326	101	141	32	38	20
26	65	151	554	659	158	168	256	96	106	67	36	20
27	210	133	468	512	160	148	214	136	96	286	41	19
28	114	104	------	488	163	138	186	178	239	151	48	22
29	78	104	------	322	------	130	167	106	65	113	37	37
30	64	104	666	252	------	126	149	190	59	67	44	23
31	55	------	590	212	------	126	------	262	------	56	47	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	------	24	------	------	------
November	921	87	308	1.65	1.84
December	------	42	------	------	------
January	659	112	250	1.34	1.54
February	579	124	202	1.08	1.12
March	679	108	170	.909	1.05
April	------	121	------	------	------
May	395	96	166	.888	1.02
June	333	55	105	.561	.63
July	286	32	71.2	.381	.44
August	79	36	47.8	.256	.30
September	47	19	28.8	.154	.17

NOTE.—Oct. 17, 18, Dec. 28, 29, Apr. 21, stage above point to which rating curve is defined; discharge not determined.

OTTER RIVER NEAR ALTAVISTA, VA.

LOCATION.—Water-stage recorder 1¼ miles below Flat Creek and 6 miles north of Altavista, Campbell County.

DRAINAGE AREA.—372 square miles.

RECORDS AVAILABLE.—August 1929 to September 1933.

DISCHARGE.—Maximum during year, about 6,960 second-feet Oct. 17 (gage height, 20.85 feet); minimum, 23 second-feet Oct. 3 (gage height, 1.94 feet).

1929–33: Maximum, about 7,140 second-feet Oct. 2, 1929 (gage height, 21.20 feet); minimum, 9 second-feet Sept. 1, 1932 (gage height, 1.71 feet).

REMARKS.—Records good except those estimated, Jan. 2, 3, 30, 31, Feb. 1–6, 21, 22, Apr. 24–28, Sept. 5–25, which are fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	1,320	171	840	460	329	306	432	576	123	135	100
2	26	728	157	750	430	270	306	432	457	114	100	87
3	24	412	150	550	390	255	306	604	293	203	111	83
4	26	305	144	486	370	247	366	432	248	230	117	77
5	32	260	137	445	350	236	292	512	236	142	114	
6	128	310	128	392	380	228	503	823	222	12[illegible]	96	
7	116	1,570	131	354	405	362	1,030	522	218	111	89	
8	55	671	125	329	1,110	619	612	444	202	107	87	
9	42	1,130	112	720	761	379	486	408	191	95	85	
10	38	1,460	119	714	541	317	418	496	299	92	85	70
11	38	690	139	486	499	279	392	408	218	114	111	
12	39	482	168	445	458	272	1,550	420	188	112	100	
13	39	360	251	366	405	268	764	408	224	96	87	
14	39	298	288	341	405	279	541	348	184	9[illegible]	101	
15	40	253	234	329	499	379	486	326	161	9[illegible]	101	
16	54	224	184	294	527	317	1,190	360	160	9[illegible]	89	
17	3,890	220	109	287	445	276	2,910	348	156	9[illegible]	91	
18	4,010	196	144	276	418	268	1,280	315	140	9[illegible]	91	60
19	962	1,460	242	287	418	312	1,050	293	137	9[illegible]	85	
20	561	1,110	226	270	432	486	1,290	282	129	9[illegible]	96	
21	399	557	204	253	890	1,030	2,420	262	121	144	85	
22	293	399	212	264	610	730	1,460	383	117	110	79	
23	244	322	335	253	513	527	986	282	115	83	81	50
24	204	284	431	234	472	445	680	272	227	7[illegible]	140	
25	182	251	933	392	445	392	590	244	272	80	107	
26	168	284	1,170	1,220	418	405	560	226	171	147	87	45
27	272	288	773	807	379	354	540	304	164	525	78	46
28	224	204	2,740	965	366	341	510	475	177	326	70	47
29	168	187	3,050	641	-------	306	483	372	153	250	75	87
30	149	180	1,240	530	-------	290	457	774	139	160	83	52
31	137	-------	996	470	-------	287	-------	1,060	-------	123	94	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,010	24	407	1.09	1.26
November	1,570	180	547	1.47	1.64
December	3,050	109	498	1.34	1.54
January	1,220	234	484	1.30	1.50
February	1,110	350	493	1.33	1.38
March	1,030	228	370	.995	1.15
April	2,910	292	825	2.22	2.48
May	1,060	226	428	1.15	1.33
June	576	115	210	.565	.63
July	525	77	141	.379	.44
August	140	70	95.2	.256	.30
September	----------	----------	64.8	.174	.19
The year	4,010	24	379	1.02	13.84

FALLING RIVER NEAR NARUNA, VA.

LOCATION.—Chain gage at highway bridge 2 miles above mouth of Little Falling River and 2½ miles northeast of Naruna, Campbell County.
DRAINAGE AREA.—172 square miles.
RECORDS AVAILABLE.—July 1929 to September 1933.
DISCHARGE.—Maximum during year, 3,970 second-feet Oct. 17 (gage height, 13.58 feet); minimum, 3 second-feet Oct. 9 (gage height, 2.18 feet).
1929–33: Maximum, that of Oct. 17, 1932; minimum, that of Oct. 9, 1932.
REMARKS.—Records good. Discharge estimated Nov. 3, 11, 12, 22, Dec. 17, Feb. 17.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	196	94	248	162	79	105	119	144	54	56	52
2	15	96	88	220	178	110	105	112	107	59	54	39
3	15	84	86	178	165	99	90	220	92	514	55	56
4	18	72	81	129	81	92	119	136	85	101	62	50
5	21	51	79	206	94	101	112	206	72	66	59	56
6	364	148	86	234	126	94	192	276	74	58	64	45
7	25	592	81	124	122	136	424	160	74	52	47	42
8	9	266	79	105	192	192	319	122	90	49	50	34
9	5	742	75	544	349	116	147	126	85	52	46	39
10	9	382	86	248	276	99	110	192	71	50	44	36
11	20	290	94	206	206	92	116	129	74	71	206	30
12	14	190	238	192	165	103	664	126	78	59	59	31
13	13	103	238	134	178	103	276	129	142	49	55	32
14	5	72	210	114	248	112	192	110	83	52	70	36
15	6	77	210	124	304	103	165	103	70	49	74	39
16	20	81	138	144	165	112	424	142	64	55	72	37
17	3,370	79	182	165	349	103	728	119	68	47	62	37
18	1,050	92	210	132	165	101	262	112	55	50	64	37
19	182	135	280	129	178	139	248	99	52	47	56	28
20	112	164	224	136	394	248	484	105	55	50	44	30
21	46	133	140	149	484	334	574	90	54	304	55	30
22	75	96	99	155	484	234	454	157	52	74	52	29
23	68	96	103	116	262	165	262	114	47	64	119	13
24	64	96	280	94	132	144	220	103	51	52	99	25
25	41	94	382	206	119	129	192	99	83	122	64	19
26	39	112	532	604	90	162	165	220	157	234	51	21
27	114	94	562	262	96	129	147	92	142	364	52	29
28	70	96	1,530	192	83	122	132	68	165	142	56	36
29	51	107	1,020	262	-------	112	124	71	99	129	44	58
30	64	105	454	206	-------	107	132	304	68	79	46	37
31	52	-------	276	192	-------	112	-------	349	-------	65	50	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,370	5	193	1.12	1.29
November	742	51	165	.959	1.07
December	1,530	75	266	1.55	1.79
January	604	94	198	1.15	1.33
February	484	81	209	1.22	1.27
March	334	79	132	.767	.88
April	728	90	256	1.49	1.66
May	349	68	145	.843	.97
June	165	47	85.1	.495	.55
July	514	47	104	.605	.70
August	206	44	64.1	.373	.43
September	58	19	36.7	.213	.24
The year	3,370	5	154	.895	12.18

LITTLE FALLING RIVER AT HAT CREEK, VA.

LOCATION.—Chain gage at highway bridge 1 mile northwest of Hat Creek, Campbell County, and 1 mile above mouth.
DRAINAGE AREA.—43 square miles.
RECORDS AVAILABLE.—July 1929 to September 1933.
DISCHARGE.—Maximum during year, 854 second-feet Oct. 17 (gage height, 9.26 feet); minimum, 1 second-foot Sept. 23, 27 (gage height, 2.34 feet).
1929–33: Maximum, 1,820 second-feet Mar. 6, 1932 (gage height, 15.12 feet); minimum, 1 second-foot several times in 1930, 1932, 1933.
REMARKS.—Records fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3	a 50	16	a 60	31	35	38	34	26	17	14	11
2	a 5	35	14	41	39	19	a 30	46	24	a 20	16	8
3	11	31	14	35	13	18	34	49	27	184	17	a 10
4	3	21	a 15	33	32	21	38	38	a 25	32	14	a 10
5	25	24	19	a 50	a 20	a 25	28	105	19	19	13	9
6	142	a 50	17	a 60	21	27	90	90	17	18	a 18	8
7	13	95	11	22	72	37	86	a 40	a 12	17	a 12	7
8	9	45	11	a 20	130	49	43	34	a 28	16	a 12	6
9	a 8	242	8	184	55	38	a 40	31	21	a 14	a 10	8
10	7	81	17	120	53	31	38	72	19	12	a 10	a 6
11	7	44	a 20	44	47	26	31	33	a 18	17	a 50	5
12	3	31	29	41	a 40	a 25	382	31	18	16	a 20	5
13	13	a 25	63	36	42	31	72	27	14	13	a 16	4
14	13	17	68	25	90	33	55	a 25	11	12	13	3
15	11	14	22	a 25	95	31	49	24	13	11	12	8
16	a 30	16	21	22	59	32	a 110	46	13	a 10	14	7
17	625	11	a 30	19	100	28	317	36	12	13	21	a 8
18	206	11	a 35	21	42	26	81	26	a 12	12	19	8
19	41	120	52	25	a 50	a 40	86	24	12	8	11	5
20	28	a 40	41	19	140	90	151	23	11	19	a 12	5
21	24	24	22	21	a 162	100	110	a 20	10	33	12	2
22	11	19	29	a 40	a 140	34	195	26	9	31	13	2
23	a 20	5	35	19	a 140	33	a 70	20	7	a 20	63	1
24	11	5	76	16	45	31	49	19	5	10	13	a 2
25	21	5	a 100	173	35	26	46	16	a 20	11	18	2
26	12	63	184	195	a 30	a 50	36	a 60	a 40	29	17	2
27	21	a 25	195	218	33	40	38	19	55	a 90	a 12	1
28	14	17	452	90	32	36	37	a 20	29	a 34	8	2
29	17	16	438	a 70	------	31	34	17	26	a 30	9	19
30	a 15	16	195	41	------	34	a 35	59	19	a 20	10	5
31	5	------	86	35	------	27	------	68	------	17	12	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	625	3	44.3	1.03	1.19
November	242	5	39.9	.928	1.04
December	452	8	75.3	1.75	2.02
January	218	16	58.7	1.37	1.58
February	162	13	63.9	1.49	1.55
March	100	18	35.6	.828	.95
April	382	28	81.6	1.90	2.12
May	105	16	38.0	.884	1.02
June	55	5	19.1	.444	.50
July	184	8	26.0	.605	.70
August	62	8	16.5	.384	.44
September	19	1	6.0	.140	.16
The year	625	1	42.0	.977	13.27

a Estimated.

DAN RIVER NEAR FRANCISCO, N.C.

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

DRAINAGE AREA.—119 square miles.

RECORDS AVAILABLE.—August 1924 to September 1933.

DISCHARGE.—Maximum during year, 5,520 second-feet Oct. 17 (gage height, 7.46 feet); minimum, 19 second-feet Oct. 3 (gage height, 0.72 foot).

1924–33: Maximum (estimated), 8,700 second-feet Dec. 8, 1924 (gage height, 10.0 feet); minimum, 7.1 second-feet Sept. 8, 1932 (gage height, 0.43 foot).

REMARKS.—Records good below and fair above 1,500 second-feet. Slight diurnal fluctuation from operation of gristmills upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	2,260	156	445	198	201	242	239	169	87	128	91
2	50	636	151	364	192	195	245	236	160	81	114	87
3	50	306	148	323	189	195	229	312	155	80	102	83
4	46	244	143	306	192	192	229	292	150	80	114	81
5	231	218	141	288	189	186	220	354	144	76	152	102
6	465	212	138	268	166	183	309	550	147	72	111	109
7	163	225	136	255	229	242	334	418	147	68	91	104
8	102	237	134	245	440	342	262	353	141	65	81	96
9	83	345	131	338	272	255	239	306	136	62	74	91
10	76	495	151	309	226	226	229	285	152	63	70	83
11	72	342	161	272	242	214	223	285	213	81	72	80
12	67	281	180	262	208	208	320	255	144	76	72	74
13	65	257	194	245	214	208	258	302	136	72	72	72
14	63	241	244	239	233	204	236	288	124	67	85	72
15	63	231	241	236	323	384	229	252	121	65	96	74
16	242	222	191	223	309	292	631	239	124	68	144	76
17	3,500	209	158	220	268	249	445	239	119	85	172	76
18	724	197	212	220	265	315	327	226	111	104	160	72
19	404	260	225	214	245	793	450	217	111	74	180	68
20	309	353	174	208	353	616	376	208	107	109	152	65
21	272	247	171	201	334	470	327	204	98	104	116	62
22	233	215	188	208	275	356	309	201	96	81	98	58
23	211	188	222	198	255	312	295	192	96	70	91	55
24	183	180	295	198	239	285	285	192	275	63	87	53
25	152	171	446	229	233	275	272	183	129	55	81	52
26	141	225	446	268	226	275	268	175	109	67	78	45
27	328	215	399	233	211	258	258	175	119	118	74	43
28	226	171	958	226	211	249	255	183	96	244	76	45
29	155	164	740	208	-------	239	252	172	192	333	91	43
30	141	161	455	201	-------	233	242	189	93	150	98	42
31	134	-------	522	201	-------	236	-------	201	-------	180	93	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,500	46	291	2.45	2.82
November	2,260	161	324	2.72	3.04
December	958	131	266	2.24	2.58
January	445	198	253	2.13	2.46
February	440	166	248	2.08	2.17
March	793	183	287	2.41	2.78
April	631	220	293	2.46	2.74
May	550	172	256	2.15	2.48
June	275	93	137	1.15	1.28
July	333	55	96.8	.813	.94
August	180	70	104	.874	1.01
September	109	42	71.8	.603	.67
The year	3,500	42	219	1.84	24.97

DAN RIVER AT LEAKSVILLE, N.C.

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

DRAINAGE AREA.—1,150 square miles.

RECORDS AVAILABLE.—July 1929 to September 1933.

DISCHARGE.—Maximum during year, 22,700 second-feet Oct. 18 (gage height, 24.94 feet); minimum, 130 second-feet Sept. 24 (gage height, 0.49 foot).

1929–33: Maximum, that of Oct. 18, 1932; minimum, 84 second-feet Sept. 12, 1932 (gage height, 0.25 foot).

REMARKS.—Records good. Diurnal regulation caused by operation of power plants upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	340	6,540	1,050	3,810	1,110	1,140	1,140	1,020	985	763	691	490
2	290	8,520	985	2,470	1,080	1,080	1,140	1,020	775	685	584	490
3	248	2,240	955	2,030	1,080	1,080	1,110	1,210	757	490	622	420
4	256	1,580	925	1,750	1,020	1,050	1,080	1,440	721	528	673	385
5	248	1,280	895	1,610	1,180	1,020	1,050	1,750	679	446	1,580	865
6	707	1,210	865	1,500	1,050	1,020	1,140	6,140	661	446	925	757
7	1,480	2,320	835	1,370	1,080	1,050	1,820	2,380	775	425	611	584
8	697	1,960	835	1,310	3,760	1,980	1,370	1,820	739	385	518	496
9	435	2,190	775	2,180	2,570	1,500	1,180	1,610	650	375	468	446
10	415	7,880	835	2,900	1,640	1,210	1,080	1,470	622	390	420	440
11	375	2,620	985	1,890	1,540	1,110	1,050	1,440	985	1,540	410	375
12	335	1,750	1,240	1,680	1,720	1,050	3,510	1,370	835	1,480	385	380
13	308	1,400	1,750	1,580	1,500	1,050	2,480	1,370	679	739	395	370
14	290	1,210	2,100	1,400	1,470	1,050	1,540	1,440	622	562	622	415
15	299	1,080	2,920	1,340	3,200	1,370	1,340	1,340	556	468	616	484
16	335	1,020	1,820	1,280	3,570	1,610	1,460	1,240	534	468	827	415
17	10,900	955	1,340	1,210	2,170	1,210	2,840	1,210	534	512	1,870	420
18	21,000	985	1,050	1,180	1,750	1,210	1,890	1,140	501	556	955	390
19	7,380	4,320	1,340	1,110	1,580	2,950	1,890	1,110	484	501	895	322
20	2,100	6,480	1,240	1,110	2,240	3,790	2,170	1,050	518	715	727	304
21	1,440	2,320	1,140	1,050	3,570	5,700	2,030	1,020	479	1,150	703	304
22	1,110	1,640	1,210	1,050	2,100	3,320	1,680	1,020	446	805	594	282
23	925	1,370	2,100	1,020	1,750	2,030	1,470	1,050	420	545	518	273
24	835	1,210	3,300	1,050	1,540	1,640	1,370	895	895	479	518	226
25	763	1,110	6,420	1,140	1,400	1,470	1,280	835	1,110	390	490	248
26	727	1,650	9,080	1,990	1,340	1,440	1,210	805	667	370	435	265
27	1,220	2,170	4,450	1,610	1,280	1,370	1,140	775	865	967	385	241
28	1,800	1,470	10,200	1,580	1,180	1,280	1,080	835	769	1,580	425	269
29	1,020	1,210	9,290	1,310	-------	1,210	1,050	775	616	2,120	484	234
30	835	1,110	3,950	1,210	-------	1,140	1,020	1,210	757	1,220	452	230
31	775	-------	3,080	1,140	-------	1,140	-------	1,280	-------	805	496	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	21,000	248	1,930	1.68	1.94
November	8,520	955	2,430	2.11	2.35
December	10,200	775	2,550	2.22	2.56
January	3,810	1,020	1,580	1.37	1.58
February	3,760	1,020	1,800	1.57	1.63
March	5,700	1,020	1,620	1.41	1.63
April	3,510	1,020	1,520	1.32	1.47
May	6,140	775	1,390	1.21	1.40
June	1,110	420	688	.598	.67
July	2,120	370	739	.643	.74
August	1,870	385	655	.570	.66
September	865	226	394	.343	.38
The year	21,000	226	1,440	1.25	17.01

DAN RIVER AT SOUTH BOSTON, VA.

LOCATION.—Water-stage recorder at Norfolk & Western Railway bridge at South Boston, Halifax County, 6 miles above Banister River.

DRAINAGE AREA.—2,730 square miles.

RECORDS AVAILABLE.—August 1900 to May 1907; April 1923 to September 1933.

DISCHARGE.—Maximum during year, 33,500 second-feet Oct. 20 (gage height, 26.53 feet); minimum, 218 second-feet Oct. 4 (gage height, 3.32 feet).

1900–1907, 1923–33: Maximum, 52,600 second-feet Dec. 31, 1901 (gage height, 25.2 feet, old datum); minimum, 161 second-feet Sept. 20, 1932 (gage height, 3.11 feet). Average, 15 years (1900–1902, 1903–6, 1923–33), 2,800 second-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.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,150	7,330	2,300	7,920	2,340	2,250	2,120	1,860	4,100	1,290	2,920	910
2	622	15,500	2,110	7,640	2,340	2,200	2,110	2,100	2,500	1,370	1,520	888
3	574	15,400	2,000	5,090	2,240	2,120	2,260	2,220	1,650	1,240	3,960	720
4	327	4,620	1,880	4,120	2,200	2,020	2,260	2,510	1,560	941	3,240	726
5	493	2,860	1,730	3,530	2,340	2,210	2,140	3,190	1,380	712	2,190	1,640
6	1,050	2,900	1,760	3,200	2,140	1,700	2,160	6,960	1,400	775	3,000	2,390
7	1,490	6,100	1,820	2,920	2,430	2,020	2,570	10,900	1,140	848	1,740	1,720
8	2,290	7,020	1,640	2,800	5,110	2,170	3,560	5,280	1,340	834	1,440	1,210
9	1,460	5,260	1,620	5,090	8,960	3,800	3,060	3,430	1,400	826	1,260	1,110
10	843	4,450	1,580	9,090	5,950	3,080	2,140	2,960	1,200	750	1,140	698
11	874	12,400	1,740	7,650	3,820	2,380	2,200	2,780	1,410	542	860	673
12	759	5,400	1,910	5,150	4,210	2,410	3,250	2,980	1,710	2,530	860	866
13	618	3,430	2,890	4,630	4,460	1,830	9,000	3,180	1,680	2,700	860	654
14	505	2,750	4,820	3,760	4,300	2,090	5,250	3,740	1,380	1,310	1,350	723
15	501	2,260	6,890	3,500	7,540	2,600	3,300	2,620	1,260	890	1,260	720
16	812	2,040	6,770	2,720	11,300	3,530	4,100	2,860	998	929	1,620	610
17	6,560	1,920	4,040	2,790	8,420	3,210	7,760	2,800	984	926	1,210	638
18	20,500	1,860	2,710	2,600	5,240	2,660	7,060	2,500	988	622	5,120	633
19	29,200	2,160	2,240	2,490	4,320	4,400	5,250	2,010	1,060	987	2,700	788
20	30,200	8,900	2,780	2,400	4,320	9,530	6,130	1,850	841	972	2,080	657
21	7,060	9,930	2,600	2,280	7,940	12,000	6,090	1,890	735	992	1,320	617
22	2,910	4,360	2,680	2,460	7,920	13,500	5,160	2,980	846	1,140	1,210	560
23	2,030	3,060	3,990	1,920	4,810	7,150	3,840	3,030	842	1,410	1,240	484
24	1,700	2,460	6,820	2,200	3,740	4,520	3,410	2,310	867	1,240	1,240	496
25	1,480	2,180	11,800	2,300	3,310	3,410	2,980	1,760	1,340	1,120	985	476
26	1,440	3,360	17,400	3,040	3,250	3,540	2,740	1,740	1,920	1,060	1,110	366
27	1,670	6,670	18,800	4,390	2,440	2,700	2,540	1,660	1,520	2,180	1,110	342
28	2,620	5,480	16,700	4,080	2,500	2,780	2,320	1,650	1,260	2,200	1,010	374
29	3,190	3,210	20,000	3,640	------	2,560	2,230	1,430	1,400	2,800	860	402
30	2,020	2,550	19,400	2,550	------	2,340	2,310	2,110	1,120	3,120	810	422
31	1,490	------	9,800	2,560	------	2,240	------	7,550	------	2,860	935	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	30,200	327	4,140	1.52	1.75
November	15,500	1,860	5,260	1.93	2.15
December	20,000	1,580	5,970	2.19	2.52
January	9,090	1,920	3,890	1.42	1.64
February	11,300	2,140	4,640	1.70	1.77
March	13,500	1,700	3,710	1.36	1.57
April	9,000	2,110	3,710	1.36	1.52
May	10,900	1,430	3,120	1.14	1.31
June	4,100	735	1,390	.509	.57
July	3,120	542	1,360	.498	.57
August	5,120	810	1,680	.615	.71
September	2,390	342	784	.287	.32
The year	30,200	327	3,300	1.21	16.40

MAYO RIVER NEAR PRICE, N.C.

LOCATION.—Water-stage recorder just below Anglins Bridge, three-quarters of a mile below State line, and 4 miles west of Price, Rockingham County.
DRAINAGE AREA.—260 square miles.
RECORDS AVAILABLE.—July 1929 to September 1933.
DISCHARGE.—Maximum during year, about 15,600 second-feet Oct. 17 (gage height, 9.97 feet); minimum, 58 second-feet Oct. 4 (gage height, 0.72 foot).
1929–33: Maximum (estimated), 15,900 second-feet Oct. 2, 1929 (gage height, 10.2 feet); minimum, 41 second-feet Sept. 19, 1932 (gage height, 0.52 foot).
REMARKS.—Records good except those above 2,000 second-feet, which are poor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	2,960	255	674	276	305	332	400	228	264	190	165
2	72	857	244	538	271	301	336	416	217	178	214	153
3	67	460	236	477	267	292	332	594	214	166	197	146
4	61	336	232	433	267	288	323	370	207	166	273	148
5	77	292	224	406	284	284	323	613	200	153	660	257
6	335	305	217	375	244	280	441	1,580	207	143	214	192
7	172	582	214	350	322	478	438	592	210	136	180	167
8	114	390	210	336	841	563	375	494	193	136	167	158
9	100	1,100	200	546	466	365	341	499	187	125	155	153
10	94	1,120	217	488	360	332	336	504	197	125	153	146
11	86	538	255	390	365	305	341	554	310	487	155	135
12	80	406	280	390	365	297	880	504	204	374	158	135
13	77	341	323	350	328	292	450	649	187	194	162	120
14	77	310	428	336	332	297	385	438	175	175	183	144
15	78	284	455	328	619	494	375	390	169	167	153	158
16	127	263	332	310	494	350	538	411	169	207	713	148
17	8,800	255	232	305	400	318	674	438	166	210	353	133
18	3,570	240	375	301	380	548	554	385	158	197	405	135
19	737	1,710	350	292	355	1,590	543	365	153	167	280	118
20	406	816	288	288	638	1,110	587	346	150	198	305	116
21	301	482	284	280	583	1,190	532	328	141	403	214	114
22	244	385	288	280	444	638	444	380	138	192	190	104
23	210	336	422	276	395	488	455	328	136	180	183	106
24	187	305	668	267	365	422	416	259	560	155	172	106
25	178	288	1,010	400	350	400	422	240	232	144	160	110
26	172	411	1,030	476	341	400	433	244	217	137	150	101
27	388	365	823	346	318	365	411	240	287	705	150	97
28	255	301	1,950	341	310	355	411	236	214	399	165	97
29	207	280	1,440	305	------	341	416	228	288	566	194	97
30	190	267	747	288	------	332	411	267	284	314	165	90
31	181	-----	772	284	------	328	------	288	------	224	165	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,800	61	571	2.20	2.54
November	2,960	240	567	2.18	2.43
December	1,950	200	484	1.86	2.14
January	674	267	370	1.42	1.64
February	841	244	392	1.51	1.57
March	1,590	280	463	1.78	2.05
April	880	323	442	1.70	1.90
May	1,580	228	438	1.68	1.94
June	560	136	213	.819	.91
July	705	125	238	.915	1.05
August	713	150	231	.888	1.02
September	257	90	135	.519	.58
The year	8,800	61	379	1.46	19.77

NORTH MAYO RIVER NEAR SPENCER, VA.

LOCATION.—Chain gage at highway bridge at Moores Mill, 4 miles southeast of Spencer, Henry County.
DRAINAGE AREA.—108 square miles.
RECORDS AVAILABLE.—October 1928 to September 1933.
DISCHARGE.—Maximum stage during year, 10.52 feet Oct. 17 (discharge not determined); minimum discharge (estimated), 30 second-feet Oct. 1, 2.
1928–33: Maximum stage, that of Oct. 17, 1932; minimum discharge, 19 second-feet Sept. 2–5, 1930 (gage height, 2.12 feet).
REMARKS.—Records fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a 30	1,240	124	a 230	102	106	100	102	90	90	88	
2	a 30	189	115	a 200	102	106	102	98	86	a 80	106	
3	36	155	106	153	98	102	102	237	86	a 80	143	
4	38	102	106	148	102	104	98	158	109	a 80	116	
5	79	106	106	145	111	106	102	650	99		220	
6	164	237	102	140	111	102	194	236	90		106	
7	113	344	102	133	119	a 160	145	124	88	a 60		
8	71	104	102	133	a 300	a 200	119	104	86			a 50
9	53	325	102	306	111	98	102	204	90			
10	36	444	106	172	104	98	102	152	92			
11	34	237	124	138	113	98	98	114	180	149	a 60	
12	34	138	161	161	153	98	a 300	180	a 100	122		
13	34	119	192	143	148	115	a 150	135		96		
14	34	111	254	126	133	111	102	135		86		
15	36	111	148	119	155	200	106	109		88		71
16	158	115	138	113	148	133	423	135		122	122	68
17	4,840	106	128	108	131	115	186	124	a 60	102	149	62
18	870	106	126	104	124	106	115	109		88	163	59
19	423	148	124	106	136	555	222	99		86	122	57
20	237	325	136	106	117	237	158	90		143	88	54
21	148	164	158	106	131	555	138	180		160	88	50
22	124	138	148	102	222	364	119	143		143		54
23	119	128	133	98	164	158	119	124	124	106		54
24	111	117	a 200	106	155	131	115	104	104	96		48
25	108	126	a 350	104	136	124	115	94	90	88		48
26	104	192	a 350	106	126	124	111	88	102	94	a 60	48
27	100	161	a 280	102	128	115	106	90	109	112		44
28	96	145	a 650	100	119	106	102	90	114	122		40
29	92	131	a 500	106	-------	102	102	86	112	102		42
30	79	128	a 250	102	-------	102	102	86	152	96		42
31	79	-------	a 250	102	-------	102	-------	88	-------	88		-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,840	30	275	2.55	2.94
November	1,240	102	206	1.91	2.13
December	650	102	189	1.75	2.02
January	306	98	133	1.23	1.42
February	300	98	136	1.26	1.31
March	555	98	159	1.47	1.70
April	423	98	138	1.28	1.43
May	650	86	144	1.33	1.53
June	180	----------	90.1	.834	.93
July	160	----------	96.1	.890	1.03
August	220	----------	85.5	.792	.91
September	----------	----------	51.4	.476	.53
The year	4,840	30	142	1.31	17.88

a Estimated.

SMITH RIVER AT MARTINSVILLE, VA.

LOCATION.—Water-stage recorder 2 miles south of Martinsville, Henry County, and 3 miles below Grassy Creek.
DRAINAGE AREA.—374 square miles.
RECORDS AVAILABLE.—August 1929 to September 1933.
DISCHARGE.—Maximum stage during year, 17.50 feet Oct. 17 (discharge not determined); minimum discharge, 11 second-feet Oct. 16 (gage height, 1.32 feet).

1927–33: Maximum stage, that of Oct. 17, 1932 (discharge not determined); minimum discharge, 7 second-feet Aug. 27, 1930, Feb. 17, Sept. 15, 1931.
REMARKS.—Records excellent. Discharge estimated for Dec. 17–20, 23–28. Flow regulated by dam and power plant 1,000 feet upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	5,070	384	842	393	362	433	418	372	264	228	202
2	65	1,240	367	691	377	360	423	460	338	197	242	196
3	107	678	354	638	378	366	440	720	340	278	314	154
4	107	532	344	582	381	348	374	464	318	216	532	192
5	112	442	466	548	424	356	366	1,310	310	290	398	287
6	268	789	376	496	304	334	738	1,260	312	260	178	246
7	305	950	368	506	466	729	742	766	328	213	201	193
8	217	662	316	470	1,090	1,080	552	584	312	172	182	187
9	169	2,680	290	859	568	601	488	534	328	60	168	186
10	124	1,730	284	719	493	500	426	778	267	159	163	144
11	99	782	246	587	493	446	450	622	280	231	183	166
12	108	616	376	536	457	436	1,210	796	348	248	182	154
13	103	535	490	492	426	418	646	910	324	210	161	155
14	103	472	609	464	452	454	530	582	278	180	235	148
15	104	396	580	436	673	956	497	550	257	188	230	170
16	78	390	418	425	552	594	1,510	712	264	202	534	194
17	14,500	393	340	430	475	502	1,410	520	246	504	414	150
18	4,200	365	330	408	476	490	652	464	244	303	804	182
19	1,000	2,950	340	396	432	774	1,110	432	262	213	376	162
20	620	1,260	350	396	822	1,180	780	422	242	199	262	124
21	433	764	370	376	648	1,480	699	531	246	316	242	123
22	385	560	384	400	524	832	642	893	244	250	190	124
23	172	498	700	419	484	653	583	442	242	152	220	122
24	273	472	1,100	368	462	538	548	408	308	174	202	25
25	277	382	3,000	560	436	528	518	390	265	162	184	142
26	259	659	3,000	658	456	524	504	377	272	219	172	130
27	754	646	3,000	528	341	468	460	406	287	660	150	126
28	420	460	7,000	545	384	454	446	444	290	822	232	122
29	348	425	1,920	428	------	419	448	341	255	512	220	122
30	287	412	1,060	433	------	428	431	475	304	324	188	127
31	319	------	1,070	418	------	384	------	497	------	266	194	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	14,500	65	852	2.28	2.63
November	5,070	365	940	2.51	2.80
December	7,000	246	975	2.61	3.01
January	859	368	518	1.38	1.60
February	1,090	304	495	1.32	1.38
March	1,480	334	580	1.55	1.79
April	1,510	366	635	1.70	1.90
May	1,310	341	597	1.60	1.84
June	372	242	289	.773	.86
July	822	60	272	.727	.84
August	804	150	264	.706	.81
September	287	25	158	.422	.47
The year	14,500	25	549	1.47	19.93

LEATHERWOOD CREEK NEAR OLD LIBERTY, VA.

LOCATION.—Chain gage at highway bridge 1½ miles above mouth and 3 miles from Old Liberty, Henry County.
DRAINAGE AREA.—68 square miles.
RECORDS AVAILABLE.—September 1925 to September 1933.
DISCHARGE.—Maximum during year, 770 second-feet Oct. 18 (gage height, 6.42 feet); minimum, 4 second-feet Oct. 3 (gage height, 1.40 feet).
1925–33: Maximum, 2,970 second-feet Aug. 11, 1928 (gage height, 14.37 feet); minimum, 1 second-foot numerous days in September 1932.
REMARKS.—Records poor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	311	39	e 80	40	45	50	25	24	16	23	16
2	e 6	114	39	e 60	36	44	e 45	25	20	e 15	22	14
3	4	57	37	44	35	43	44	67	20	14	31	e 14
4	6	44	e 37	44	35	43	48	27	e 18	e 14	20	e 14
5	8	38	37	42	e 35	e 40	44	27	16	13	58	14
6	45	e 100	36	36	26	39	69	164	16	10	e 25	15
7	13	202	36	36	35	51	66	e 60	18	10	17	14
8	10	79	33	e 35	232	79	50	47	18	10	17	13
9	e 10	72	30	128	87	54	e 45	36	16	e 10	15	11
10	9	e 187	40	100	35	45	44	54	15	9	13	e 10
11	9	80	e 50	63	62	41	44	39	e 16	22	15	8
12	9	60	69	51	e 55	e 40	409	33	17	15	14	10
13	8	e 50	78	42	50	41	94	87	63	11	e 15	8
14	8	43	100	42	67	41	49	e 50	22	10	16	11
15	10	39	135	e 40	311	217	40	32	14	10	14	11
16	e 30	36	77	36	142	63	e 120	64	18	e 12	17	10
17	528	42	e 40	36	79	50	114	44	17	15	15	e 10
18	770	36	e 35	36	87	41	47	34	e 15	13	17	10
19	84	263	40	35	e 70	e 350	63	34	13	10	15	8
20	52	e 100	45	33	247	295	47	25	12	11	e 14	7
21	37	72	50	32	150	409	41	e 25	11	14	14	7
22	e 30	56	61	e 32	e 100	150	40	78	11	10	14	6
23	e 25	49	121	33	74	94	e 35	32	10	e 8	14	6
24	25	e 45	202	31	48	68	29	27	150	7	13	e 6
25	25	42	e 180	33	52	50	29	22	e 30	6	13	6
26	25	77	e 160	87	e 50	e 55	28	25	16	6	13	5
27	114	e 60	142	33	47	54	26	24	21	263	e 12	5
28	36	47	511	57	45	52	25	e 22	15	46	11	6
29	28	47	392	e 45	-------	50	25	20	14	58	12	6
30	e 26	39	114	41	-------	49	e 25	e 100	22	e 70	14	6
31	24	-------	107	40	-------	49	-------	33	-------	63	16	-------

Month	Maximum	Minimum	Mean	Per sqare mile	Run-off in inches
October	770	4	65.2	0.959	1.11
November	311	36	82.9	1.22	1.36
December	511	30	99.1	1.46	1.68
January	128	31	47.8	.703	.81
February	311	26	83.3	1.22	1.27
March	409	39	88.5	1.30	1.50
April	409	25	61.2	.900	1.00
May	164	20	44.6	.656	.76
June	150	10	22.9	.337	.38
July	263	6	25.8	.379	.44
August	58	11	17.4	.256	.30
September	16	5	9.6	.141	.16
The year	770	4	53.9	.793	10.77

e Estimated.

SANDY RIVER NEAR DANVILLE, VA.

LOCATION.—Water-stage recorder 500 feet below highway bridge on road between Callahans Store and Mount Cross and 6 miles northwest of Danville, Pittsylvania County.

DRAINAGE AREA.—113 square miles.

RECORDS AVAILABLE.—November 1929 to September 1933.

DISCHARGE.—Maximum during year, about 3,890 second-feet Oct. 17 (gage height, 9.29 feet); minimum, 7 second-feet July 23 (gage height, 0.47 foot). 1929–33: Maximum, about 6,280 second-feet Aug. 22, 1931 (gage height, 9.45 feet); minimum, 3 second-feet Sept. 29, 1930 (gage height, 0.40 foot).

REMARKS.—Records good except those for high stages and those for month of July, which are fair. Discharge estimated for period of ice effect, Dec. 17–21.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	397	57	145	80	88	67	62	72	32	29	38
2	17	102	55	117	77	88	64	62	62	32	446	32
3	17	64	52	108	80	80	62	89	55	32	75	31
4	17	55	47	102	80	80	64	67	50	32	415	40
5	20	45	45	94	82	77	59	250	47	32	232	36
6	62	154	45	85	80	80	69	272	45	31	45	32
7	32	378	43	80	82	96	78	119	52	31	32	31
8	22	86	45	80	209	109	69	89	41	31	27	27
9	20	133	45	175	135	94	67	78	40	31	25	27
10	19	172	50	145	104	91	64	86	38	29	23	25
11	20	92	62	111	99	85	62	72	38	27	23	25
12	20	67	75	111	111	82	569	98	41	27	23	23
13	20	55	89	108	105	77	149	108	69	27	53	23
14	20	52	137	99	99	80	98	69	40	27	52	25
15	19	47	145	96	286	129	86	59	34	27	34	25
16	34	41	98	94	175	99	141	119	34	26	36	25
17	2,040	38	50	80	132	88	145	86	32	21	149	25
18	918	40	45	72	120	91	105	64	31	22	104	36
19	180	178	50	72	99	342	119	59	29	21	36	22
20	112	119	60	74	187	236	95	55	29	20	29	22
21	75	78	70	72	168	621	89	57	29	26	32	21
22	67	62	84	69	123	154	84	105	29	21	32	21
23	52	50	119	72	117	102	84	59	27	15	34	21
24	50	52	183	74	111	92	78	52	27	16	36	20
25	43	47	524	95	105	86	75	50	27	15	32	19
26	45	272	510	138	105	92	72	55	29	124	26	20
27	110	122	482	126	96	78	69	52	29	407	34	19
28	47	84	1,210	123	91	72	67	50	29	76	31	16
29	40	59	588	102	-------	69	64	89	29	59	29	19
30	40	57	171	88	-------	67	64	298	31	73	32	17
31	38	-------	154	85	-------	64	-------	146	-------	68	38	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,040	17	137	1.21	1.40
November	397	38	107	.947	1.06
December	1,210	43	174	1.54	1.78
January	175	69	99.7	.882	1.02
February	286	77	119	1.05	1.09
March	621	64	119	1.05	1.21
April	569	59	99.3	.879	.98
May	298	50	96.0	.850	.98
June	72	27	38.8	.343	.38
July	407	15	47.0	.416	.48
August	446	23	72.4	.641	.74
September	40	16	25.4	.225	.25
The year	2,040	15	94.6	.837	11.37

BANISTER RIVER AT HALIFAX, VA.

LOCATION.—Water-stage recorder 1 mile north of Halifax, Halifax County, and 10 miles above mouth.
DRAINAGE AREA.—552 square miles.
RECORDS AVAILABLE.—December 1928 to September 1933.
DISCHARGE.—Maximum during year, 6,060 second-feet Oct. 18 (gage height, 20.59 feet); minimum, 7 second-feet Oct. 5 (gage height, 0.22 foot).
1928–33: Maximum, 7,510 second-feet Oct. 3, 1929 (gage height, 24.02 feet); minimum, 6 second-feet numerous days in August and September 1932.
REMARKS.—Records excellent except those estimated Nov. 26 to Dec. 4, Mar. 23–30, July 4–12, which are fair. Flow regulated except for high stages by power plant half a mile upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	2,160	300	1,420	430	322	386	338	3,560	338	310	52
2	24	2,240	290	962	358	420	250	245	936	206	278	241
3	19	854	430	739	500	432	465	440	544	305	464	60
4	50	580	140	670	462	314	444	398	432	50	392	162
5	40	430	284	598	290	189	346	515	270	210	352	239
6	242	368	206	357	593	518	351	1,010	418	40	94	225
7	380	1,750	258	588	454	330	616	910	217	210	332	24
8	72	1,360	260	503	1,330	360	559	636	206	90	65	215
9	73	870	164	992	1,360	558	375	572	208	40	154	122
10	52	1,690	286	1,900	781	424	304	439	460	200	217	44
11	93	1,000	204	1,070	660	294	514	441	190	330	188	163
12	21	614	426	764	710	320	1,010	442	54	320	130	18
13	92	320	553	637	783	322	2,280	336	220	218	122	162
14	113	474	624	586	771	321	1,070	406	226	219	30	45
15	72	318	820	389	1,260	931	660	269	224	219	174	206
16	178	291	664	635	1,410	832	864	1,950	207	24	240	19
17	2,310	250	624	452	978	548	3,250	1,710	244	78	162	73
18	5,630	301	350	416	752	478	1,680	734	88	166	716	208
19	4,980	440	335	432	601	770	1,070	518	18	56	384	17
20	1,740	672	466	399	781	1,900	1,140	504	200	155	336	60
21	582	656	506	447	1,020	1,260	1,720	188	82	48	233	81
22	476	470	429	250	815	748	1,180	761	161	146	68	66
23	106	296	511	430	654	650	844	660	124	52	395	84
24	168	256	703	404	577	600	698	369	152	74	232	156
25	232	284	1,580	451	578	600	558	413	133	204	210	15
26	235	500	2,720	900	465	620	542	237	238	390	534	15
27	317	830	1,960	898	553	500	483	385	271	2,940	27	116
28	498	710	3,230	1,100	400	480	450	368	213	1,290	18	14
29	329	550	4,490	702	-------	480	416	216	196	720	26	150
30	159	290	3,220	644	-------	460	457	1,990	178	466	20	19
31	166	-------	1,600	586	-------	540	-------	5,300	-------	380	272	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,630	19	628	1.14	1.31
November	2,240	250	727	1.32	1.47
December	4,490	140	924	1.67	1.92
January	1,900	250	688	1.25	1.44
February	1,410	290	726	1.32	1.38
March	1,900	189	565	1.02	1.18
April	3,250	250	833	1.51	1.68
May	5,300	188	765	1.39	1.60
June	3,560	18	356	.645	.72
July	2,940	24	329	.596	.69
August	716	18	231	.418	.48
September	241	14	102	.185	.21
The year	5,630	14	572	1.04	14.08

HYCO RIVER NEAR DENNISTON, VA.

LOCATION.—Chain gage at highway bridge 2 miles east of Dennistor, Halifax County, and 8 miles south of South Boston.

DRAINAGE AREA.—219 square miles.

RECORDS AVAILABLE.—July 1929 to September 1933.

DISCHARGE.—Maximum during year, 2,770 second-feet Dec. 28 (gage height, 17.52 feet); minimum, 2.6 second-feet July 30, Sept. 27, 28 (gage height, 4.34 feet).

1929–33: Maximum, 3,190 second-feet Mar. 8, 1932 (gage height, 18.58 feet); minimum, 0.004 second-foot Sept. 14, 1932 (gage height, 3.58 feet) from discharge measurement.

REMARKS.—Records good except those estimated, Jan. 15, 16, which are fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	81	166	718	126	138	77	95	1,490	22	4.0	5.4
2	25	772	110	448	116	138	77	65	407	22	25	4.0
3	24	490	77	329	116	138	73	126	74	54	78	9.3
4	27	132	49	264	126	121	81	121	88	34	407	70
5	14	86	38	238	202	110	81	110	44	15	168	736
6	145	95	36	202	226	95	86	596	51	27	107	700
7	134	476	33	178	251	126	121	1,260	44	19	51	88
8	54	1,130	31	154	462	132	166	682	40	16	27	66
9	21	896	33	986	434	138	121	252	43	8.6	30	44
10	17	448	61	1,460	214	154	81	143	34	5.4	34	38
11	20	303	69	1,490	264	116	73	121	264	13	29	24
12	9.3	238	355	1,400	303	77	190	918	252	54	24	6.0
13	13	154	682	1,320	316	77	646	664	70	37	13	34
14	12	110	1,400	700	355	69	316	202	38	27	24	27
15	18	86	1,870	450	940	110	226	121	34	16	29	13
16	19	86	1,870	400	962	86	407	143	54	8.2	44	4.4
17	874	73	316	316	612	65	1,110	110	25	13	30	9.0
18	1,740	69	226	277	476	77	1,110	77	20	10	18	11
19	1,710	69	190	226	420	290	962	69	19	4.4	8.2	9.3
20	462	69	190	202	718	316	874	214	15	9.0	6.8	9.7
21	190	49	226	178	1,380	664	1,180	532	14	4.4	17	4.4
22	77	53	251	154	664	718	718	394	19	5.4	33	4.4
23	61	53	277	138	420	368	381	166	20	5.0	48	13
24	43	61	303	100	329	202	238	154	25	4.0	88	4.4
25	47	53	1,680	166	251	132	238	81	74	3.8	35	4.4
26	26	69	2,080	178	251	121	264	40	88	11	32	3.0
27	35	874	2,690	238	214	95	154	39	66	25	31	2.8
28	36	532	2,440	238	178	95	116	31	66	11	13	2.7
29	38	434	1,980	166	-------	95	100	143	38	4.0	14	3.4
30	35	264	1,980	138	-------	81	100	852	22	3.3	5.4	3.0
31	41	-------	918	126	-------	77	-------	1,430	-------	3.8	11	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,740	9.3	193	0.881	1.02
November	1,130	49	277	1.26	1.41
December	2,690	31	730	3.33	3.84
January	1,490	100	438	2.00	2.31
February	1,380	116	404	1.84	1.92
March	718	65	168	.767	.88
April	1,180	73	346	1.58	1.76
May	1,430	31	321	1.47	1.70
June	1,490	14	118	.539	.60
July	54	3.3	16.0	.073	.08
August	407	4.0	47.9	.219	.25
September	736	2.7	65.1	.297	.33
The year	2,690	2.7	260	1.19	16.10

TAR RIVER BASIN

TAR RIVER NEAR NASHVILLE, N.C.

LOCATION.—Chain gage at Cockrell Bridge, on Nashville-Wilson road, 5 miles above Sapony Creek and 10 miles south of Nashville, Nash County.
DRAINAGE AREA.—593 square miles.
RECORDS AVAILABLE.—October 1928 to September 1933.
DISCHARGE.—Maximum during year, 4,360 second-feet Apr. 20 (gage height, 10.51 feet); minimum, 27 second-feet July 10 (gage height, 1.80 feet).
1928–33: Maximum, 13,200 second-feet Oct. 6, 1929 (gage height, 16.98 feet); minimum, 10 second-feet Sept. 20, 1932 (gage height, 1.50 feet).
REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	158	396	1,250	710	620	378	514	415	187	113	105
2	47	136	341	1,020	710	576	360	473	415	163	94	94
3	45	710	306	755	665	534	415	473	341	128	271	87
4	36	378	271	665	620	514	453	473	254	118	576	83
5	38	254	271	620	665	493	453	453	222	92	1,380	111
6	62	206	271	576	755	453	396	473	197	88	755	254
7	58	306	238	514	665	493	710	665	187	94	415	222
8	65	453	206	514	755	665	1,380	710	175	87	254	187
9	105	800	206	534	890	665	1,160	534	152	98	175	141
10	77	576	206	1,160	980	576	665	473	152	34	146	116
11	69	890	254	2,100	1,020	473	534	396	155	59	128	113
12	67	665	665	1,340	1,250	415	576	378	341	125	118	138
13	79	396	1,070	935	1,540	415	1,070	534	306	238	102	172
14	59	271	1,680	1,020	1,300	415	1,380	1,200	254	222	85	111
15	52	238	2,740	980	1,200	514	800	2,440	194	149	107	87
16	60	238	2,980	1,440	1,680	576	755	1,250	146	118	102	69
17	378	222	2,380	1,540	2,380	534	2,270	453	138	128	102	74
18	1,840	206	1,120	1,160	1,780	473	3,220	514	160	123	94	50
19	2,220	288	890	935	1,160	473	4,010	434	123	107	94	60
20	1,070	755	800	800	1,120	755	3,480	324	111	96	90	53
21	434	1,680	710	665	1,250	890	2,680	324	98	87	85	42
22	254	534	710	620	1,740	1,020	3,480	324	98	87	92	47
23	197	493	980	620	1,200	845	3,040	890	96	90	138	44
24	163	396	1,840	534	890	665	1,580	1,250	109	81	175	34
25	152	341	2,100	890	755	534	1,070	493	178	85	271	32
26	105	324	2,440	2,100	845	514	890	378	238	100	238	45
27	130	576	2,980	2,680	800	514	755	341	288	141	206	59
28	118	1,680	3,290	2,920	710	473	665	324	206	271	158	47
29	360	845	2,440	1,340	-------	453	576	360	158	254	120	42
30	238	473	2,100	935	-------	415	534	453	141	160	98	33
31	187	-------	1,840	755	-------	378	-------	324	-------	107	111	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,220	36	284	0.479	0.55
November	1,680	136	516	.870	.97
December	3,290	206	1,250	2.11	2.43
January	2,920	514	1,090	1.85	2.17
February	2,380	620	1,070	1.81	1.88
March	1,020	378	559	.943	1.09
April	4,010	360	1,320	2.23	2.45
May	2,440	324	601	1.01	1.16
June	415	96	202	.341	.38
July	271	34	126	.212	.24
August	1,380	85	222	.374	.43
September	254	32	91.7	.155	.17
The year	4,010	32	609	1.03	13.92

TAR RIVER AT TARBORO, N.C.

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

DRAINAGE AREA.—2,100 square miles.

RECORDS AVAILABLE.—July 1896 to December 1900, October 1931 to September 1933.

DISCHARGE.—Maximum during year, 10,000 second-feet Apr. 24 (gage height, 15.95 feet); minimum, 41 second-feet Oct. 2 (gage height, 0.51 foot).

1896–1900, 1931–33: Maximum, 19,800 second-feet Feb. 11, 1899 (gage height, 25.0 feet, old datum); minimum, 37 second-feet Sept. 29, 1932 (gage height, 0.47 foot).

Maximum stage known, 34.2 feet (present datum) July 27, 1919 (discharge, estimated, 32,000 second-feet).

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	620	1,140	6,390	5,210	2,850	1,480	1,870	886	361	426	235
2	42	460	944	5,230	3,880	2,520	1,400	1,720	905	361	349	238
3	88	277	846	3,970	3,360	2,220	1,400	1,480	944	327	292	230
4	115	554	732	3,170	3,020	2,020	1,530	1,400	846	400	283	187
5	76	827	694	2,740	2,800	1,920	1,530	1,310	675	529	629	160
6	142	547	770	2,420	2,630	1,770	1,620	1,270	656	494	1,420	182
7	347	494	656	2,220	2,580	1,770	1,620	1,220	601	380	1,430	201
8	156	732	620	2,020	2,580	1,820	1,850	1,420	547	286	1,010	361
9	100	732	601	1,820	2,630	2,220	2,900	2,020	512	361	675	280
10	142	1,060	601	2,070	2,800	2,520	3,180	1,770	460	324	477	261
11	130	1,060	620	2,800	3,420	2,320	2,730	1,400	443	240	403	248
12	111	1,100	770	3,980	4,080	1,970	2,120	1,180	393	283	352	194
13	152	1,180	1,310	3,980	4,690	1,720	2,020	1,380	484	235	300	400
14	132	905	2,300	3,070	5,200	1,720	2,500	1,920	886	203	250	460
15	99	789	3,690	3,070	5,290	1,670	3,120	2,390	601	477	213	339
16	124	620	4,930	3,360	5,110	1,720	2,620	3,210	477	460	198	238
17	180	529	5,920	3,780	5,470	1,870	2,750	2,870	403	460	313	225
18	297	494	6,390	4,080	6,300	2,020	4,680	1,600	361	477	218	162
19	1,330	494	5,580	3,780	6,680	1,920	6,520	1,220	327	477	220	119
20	2,260	808	4,190	3,300	5,650	2,270	7,950	1,220	272	336	240	158
21	1,920	1,210	3,600	2,960	4,930	3,500	9,160	983	292	327	213	122
22	1,050	2,210	3,180	2,630	4,770	4,290	9,790	886	267	286	178	126
23	650	1,920	3,020	2,370	5,110	4,450	9,900	924	235	267	230	136
24	426	1,260	3,180	2,220	4,770	4,020	9,900	1,220	232	240	230	130
25	477	944	4,000	2,170	3,780	3,360	9,580	2,070	242	238	240	90
26	355	846	4,690	3,420	3,300	2,800	7,830	1,350	184	230	324	76
27	346	808	5,200	5,480	3,180	2,420	5,330	886	358	300	601	119
28	426	910	5,920	6,960	3,180	2,270	3,540	770	477	297	547	79
29	468	1,790	6,860	8,250	------	1,970	2,700	886	477	547	416	93
30	789	1,660	7,350	8,350	------	1,720	2,200	924	393	583	346	72
31	675	------	7,060	6,960	------	1,620	------	983	------	565	289	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,260	42	440	0.210	0.24
November	2,210	377	931	.443	.49
December	7,350	601	3,140	1.50	1.73
January	8,350	1,820	3,840	1.83	2.11
February	6,680	2,580	4,160	1.98	2.06
March	4,450	1,620	2,360	1.12	1.29
April	9,900	1,400	4,180	1.99	2.22
May	3,210	770	1,480	.705	.81
June	944	184	495	.236	.26
July	583	203	366	.174	.20
August	1,430	178	426	.203	.23
September	460	72	197	.094	.10
The year	9,900	42	1,820	.867	11.74

FISHING CREEK NEAR ENFIELD, N.C.

LOCATION.—Water-stage recorder at highway bridge 2,000 feet below Atlantic Coast Line Railroad bridge, 2 miles southwest of Enfield, Halifax County, and 4¾ miles below mouth of Rocky Creek. Prior to Oct. 27 staff gage at same site and datum was used.

DRAINAGE AREA.—462 square miles.

RECORDS AVAILABLE.—October 1923 to September 1933.

DISCHARGE.—Maximum during year, 2,710 second-feet Apr. 19 (gage height, 12.68 feet); minimum, 13.5 second-feet Oct. 8–9.

1923–33: Maximum, 12,300 second-feet Oct. 1, 2, 1924 (gage height, 17.3 feet); minimum, 12 second-feet Sept. 23, 27, 1932 (gage height, 0.18 foot). Average, 10 years, 486 second-feet.

REMARKS.—Records fair except those estimated Aug. 29 to Sept. 14, which are poor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15.0	75	168	706	498	450	308	308	243	92	65	60
2	15.5	61	152	546	482	405	330	300	20[illegible]	65	64	60
3	18.0	103	135	420	498	390	338	292	143	383	65	60
4	19.5	138	135	390	450	368	375	292	122	355	126	60
5	19.5	168	115	375	466	360	514	278	116	180	121	65
6	29	86	97	345	514	345	405	285	10[illegible]	120	114	100
7	15.5	97	110	322	466	368	828	622	8[illegible]	80	111	100
8	14.0	140	110	308	482	658	1,220	780	83	74	71	100
9	14.5	187	106	311	642	690	1,130	483	73	66	59	95
10	15.0	168	112	864	578	514	646	345	8[illegible]	57	55	75
11	19.5	187	126	1,030	632	420	450	285	77	58	53	70
12	19.5	215	286	723	990	368	466	264	93	82	50	90
13	19.0	161	546	546	973	345	722	645	9[illegible]	187	46	85
14	15.0	121	804	530	770	338	722	638	9[illegible]	151	43	65
15	15.0	98	1,390	578	922	375	514	365	8[illegible]	118	43	48
16	15.5	88	1,310	738	1,260	530	464	236	6[illegible]	87	43	47
17	33	85	950	803	1,240	498	1,610	208	73	74	46	42
18	250	80	610	722	905	435	2,510	215	5[illegible]	73	51	39
19	405	134	482	626	738	360	2,660	222	64	76	54	38
20	243	470	420	530	722	825	1,990	194	5[illegible]	73	51	36
21	174	530	405	450	905	1,060	1,400	168	5[illegible]	68	50	31
22	108	390	420	405	939	990	1,260	187	54	194	48	32
23	72	264	654	375	722	722	1,100	461	5[illegible]	55	50	32
24	62	194	871	360	594	530	821	452	5[illegible]	52	51	28
25	43	161	888	442	530	450	610	221	57	51	133	24
26	43	145	973	1,520	594	405	514	168	6[illegible]	55	201	24
27	43	143	1,010	1,680	626	420	450	161	67	243	168	23
28	409	243	1,100	1,560	530	390	390	222	67	275	127	23
29	336	236	1,120	1,080	-------	352	360	236	117	156	75	22
30	168	187	1,080	754	-------	330	338	174	15[illegible]	143	60	22
31	91	-------	939	578	-------	308	-------	168	-------	87	65	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	409	14.0	89.0	0.193	0.22
November	530	61	178	.385	.43
December	1,390	97	569	1.23	1.42
January	1,680	308	665	1.44	1.66
February	1,260	450	702	1.52	1.58
March	1,060	308	484	1.05	1.21
April	2,660	308	848	1.84	2.05
May	780	161	319	.690	.80
June	243	50	91.9	.199	.22
July	383	51	124	.268	.31
August	201	43	76.1	.165	.19
September	100	22	53.2	.115	.13
The year	2,660	14.0	348	.753	10.22

NEUSE RIVER BASIN

ENO RIVER AT HILLSBORO, N.C.

LOCATION.—Staff gage 1,000 feet below State highway 10 at Hillsboro, Orange County, and 2 miles below Sevenmile Creek.
DRAINAGE AREA.—66.5 square miles.
RECORDS AVAILABLE.—November 1927 to September 1933.
DISCHARGE.—Maximum during year, 1,350 second-feet Nov. 26 (gage height, 9.90 feet); minimum, 1.4 second-feet Oct. 2, 3 (gage height, 0.54 foot).
1927–33: Maximum, 4,650 second-feet Oct. 2, 1929 (gage heigl t, estimated, 18.0 feet); minimum, 1.2 second-feet Sept. 24-26, 1932 (gage height, 0.50 foot).
REMARKS.—Records good below 500 second-feet; others fair. Slight diurnal regulation, owing to operation of cotton mills.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	264	37	91	44	47	30	31	46	7.6	39	10.8
2	1.5	80	32	80	59	49	30	31	23	6.9	38	9.0
3	1.4	37	28	69	44	44	29	35	19.0	7.2	15.0	7.6
4	1.6	27	27	56	55	41	29	31	16.5	7.6	171	97
5	1.6	21	24	56	74	38	29	57	15.5	7.6	463	22
6	37	148	23	44	66	38	30	39	15.5	6.9	29	17.0
7	13.5	425	23	40	65	38	115	37	16.0	6.9	18.5	13.5
8	5.5	25	22	39	189	74	69	36	13.5	6.2	15.0	11.2
9	3.2	80	21	338	97	54	39	35	12.6	6.2	11.7	9.4
10	2.6	109	27	255	58	40	30	33	12.2	6.2	12.2	8.0
11	2.4	56	74	97	80	37	29	30	10.4	10[illegible]	22	6.6
12	2.2	41	146	227	115	37	177	29	22	45	18.0	5.5
13	2.4	33	252	202	127	37	61	25	20	17.5	13.5	5.2
14	2.6	29	593	214	140	36	51	23	11.7	11.2	9.9	5.0
15	2.6	28	327	127	413	64	41	21	9.9	7.2	9.4	5.0
16	22	25	202	80	289	47	67	21	9.4	5.8	8.6	5.5
17	520	23	80	67	121	43	134	19.6	9.0	6.2	7.6	5.5
18	239	22	80	62	103	37	109	18.5	9.0	5.5	6.9	5.0
19	57	74	80	59	91	39	60	17.5	8.3	5.5	6.2	5.0
20	29	66	80	57	152	91	80	17.0	8.3	6.2	5.8	4.5
21	20	42	103	52	152	86	80	16.5	7.6	5.5	6.6	4.0
22	16.0	33	189	49	91	56	91	28	6.9	5.0	5.0	3.5
23	13.0	26	239	51	80	41	86	19.6	6.9	5.0	9.9	3.0
24	13.0	22	252	46	68	40	74	16.0	10.8	4.5	12.6	3.0
25	12.2	18.5	437	58	66	38	54	15.5	15.5	3.8	11.7	3.0
26	11.2	1,010	239	109	80	38	44	14.0	11.2	4.0	10.8	2.7
27	21	557	339	74	60	36	39	13.5	9.9	5.8	33	2.7
28	30	86	277	60	50	33	34	15.5	9.0	12.6	15.5	2.4
29	17.0	54	202	53	-------	32	31	14.0	8.3	6.9	55	2.4
30	13.0	43	134	45	-------	30	31	44	7.6	4.0	18.0	2.4
31	12.2	-------	103	42	-------	30	-------	48	-------	26	12.2	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	520	1.4	36.4	0.547	0.63
November	1,010	18.5	117	1.76	1.96
December	593	21	151	2.27	2.62
January	338	39	93.5	1.41	1.63
February	413	44	108	1.62	1.69
March	91	30	44.9	.675	.78
April	177	29	60.1	.904	.10
May	57	13.5	26.8	.403	.46
June	46	6.9	13.4	.202	.23
July	105	3.8	11.9	.179	.21
August	463	5.0	35.8	.538	.62
September	97	2.4	9.58	.144	.16
The year	1,010	1.4	58.8	.883	11.09

NEUSE RIVER NEAR NORTHSIDE, N.C.

LOCATION.—Water-stage recorder at Fish Dam Bridge, 1½ miles below Seaboard Air Line Railway bridge and 2 miles south of Northside, Granville County. Zero of gage is 226.32 feet above mean sea level.

DRAINAGE AREA.—574 square miles.

RECORDS AVAILABLE.—July 1927 to September 1933.

DISCHARGE.—Maximum during year (estimated), 3,870 second-feet Apr. 18 (gage height, 16.08 feet); minimum, 4.2 second-feet Oct. 3 (gage height, 0.91 foot).

1927–33: Maximum, 26,600 second-feet Oct. 3, 1929 (gage height, 28.64 feet); minimum, 3.1 second-feet Sept. 20, 1932 (gage height, 0.87 foot).

REMARKS.—Records good to 1,000 second-feet, fair to 2,000 second-feet, and poor beyond and for estimated period, Aug. 21 to Sept. 16. Flow regulated by storage in Durham Reservoir.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.7	243	484	804	516	532	196	388	236	60	41	40
2	6.7	908	468	660	500	516	212	308	228	54	126	40
3	5.9	395	404	596	468	484	196	228	161	48	114	35
4	5.5	316	356	564	452	484	196	228	124	50	559	30
5	6.7	268	324	564	612	452	196	212	110	50	601	30
6	48	268	356	532	532	420	301	308	97	48	592	30
7	201	1,140	388	500	500	420	964	420	118	40	132	30
8	86	1,260	372	484	708	500	716	420	116	42	82	30
9	53	692	340	786	820	484	372	388	106	48	86	30
10	37	884	324	1,790	580	420	276	356	121	35	54	35
11	42	661	468	1,060	612	404	252	324	175	159	106	30
12	31	452	1,020	788	1,100	364	363	186	111	516	132	25
13	26	380	1,420	932	900	356	724	386	110	212	64	30
14	20	340	1,960	788	788	356	532	484	143	94	79	35
15	15	340	2,680	1,140	1,080	372	500	324	110	65	60	25
16	15	332	1,910	1,240	1,780	516	735	324	98	46	50	20
17	886	292	886	916	1,200	348	2,780	332	94	35	76	19.3
18	2,460	236	644	740	900	292	3,330	308	81	44	51	21
19	1,400	630	580	644	772	268	1,520	292	79	37	37	16.6
20	376	1,350	596	596	772	380	804	284	95	33	36	18.2
21	220	701	580	564	1,240	564	884	276	94	30	40	49
22	162	484	646	548	948	500	1,070	260	90	49	35	23
23	126	404	1,460	532	692	364	820	324	94	27	45	15.9
24	121	372	1,610	516	612	268	612	300	153	20	65	15.9
25	119	324	2,640	668	580	252	564	142	116	18.2	55	19.3
26	111	997	3,790	1,700	660	244	516	95	94	41	45	19.3
27	98	2,620	4,290	1,060	612	236	484	105	113	124	40	14.3
28	92	1,680	3,220	708	564	220	452	148	70	236	30	37
29	146	711	2,180	612	-------	228	452	153	67	97	45	16.6
30	127	532	1,500	580	-------	180	420	140	46	55	40	11.2
31	100	-------	1,010	548	-------	196	-------	167	-------	40	35	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,460	5.5	231	0.402	0.46
November	2,620	236	674	1.17	1.30
December	4,290	324	1,260	2.20	2.54
January	1,790	484	779	1.36	1.57
February	1,780	452	768	1.34	1.40
March	564	180	375	.653	.75
April	3,330	196	715	1.25	1.40
May	484	95	278	.484	.56
June	236	46	115	.200	.22
July	516	18.2	79.1	.138	.16
August	601	30	115	.200	.23
September	49	11.2	26.4	.046	.05
The year	3,330	5.5	449	.782	10.64

NEUSE RIVER NEAR CLAYTON, N.C.

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

DRAINAGE AREA.—1,180 square miles.

RECORDS AVAILABLE.—July 1927 to September 1933.

DISCHARGE.—Maximum during year (estimated), 7,500 second-feet Apr. 18; minimum, 66 second-feet Oct. 3 (gage height, 0.48 foot).

1927–33: Maximum, 28,100 second-feet Oct. 3, 1929 (gage height, 21.62 feet); minimum, 44 second-feet Sept. 15, 1932 (gage height, 0.28 foot).

REMARKS.—Records good except those estimated Oct. 28, Nov. 11–19, Dec. 11–13, Feb. 6–27, Apr. 7–9, 18–19, 23–29, which are poor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	395	980	2,660	1,210	1,210	564	828	423	215	251	296
2	74	585	860	1,850	1,210	1,110	587	771	452	221	248	286
3	68	1,140	830	1,500	1,180	1,040	582	743	427	216	618	209
4	68	770	710	1,340	1,110	980	617	627	365	237	1,570	168
5	90	550	590	1,240	1,340	948	582	582	302	153	1,750	177
6	225	560	515	1,180	1,200	917	573	743	293	160	1,860	216
7	383	1,270	650	1,080	1,100	917	2,000	980	248	151	1,210	197
8	200	2,090	710	1,010	1,400	1,040	1,800	1,180	234	140	531	204
9	192	2,160	630	1,140	1,800	1,010	1,300	828	268	114	299	219
10	146	1,740	580	2,580	1,300	980	1,010	689	245	93	265	183
11	174	1,400	850	3,140	1,700	887	743	663	219	141	268	147
12	109	1,100	1,200	2,580	2,400	828	771	632	312	372	242	197
13	77	900	3,200	1,780	2,100	799	1,110	508	482	689	265	280
14	124	700	4,720	1,920	1,800	771	1,400	427	319	627	305	190
15	101	650	6,100	1,920	2,400	887	1,110	689	256	319	296	126
16	181	550	5,800	2,820	4,000	1,010	1,250	587	262	209	221	143
17	2,790	550	4,810	2,980	3,100	1,080	5,680	508	242	204	204	141
18	3,460	550	2,940	2,500	2,100	887	7,500	526	188	265	271	126
19	3,640	1,270	1,680	1,920	1,700	771	6,300	491	194	174	251	109
20	2,780	2,620	1,440	1,570	1,700	917	4,450	478	221	221	183	107
21	1,042	2,300	1,440	1,370	2,700	1,180	2,980	452	190	234	219	96
22	550	1,460	1,470	1,240	2,000	1,370	2,740	540	194	166	280	82
23	395	980	2,500	1,180	1,500	1,180	2,300	465	219	125	248	87
24	322	830	3,300	1,110	1,400	917	1,900	500	216	104	461	98
25	340	710	3,910	1,530	1,300	771	1,700	500	465	155	392	81
26	305	950	4,720	3,820	1,500	716	1,300	399	607	134	312	81
27	860	2,540	5,260	3,460	1,400	689	1,100	293	419	302	265	80
28	640	3,280	5,800	2,980	1,370	663	900	340	380	637	192	93
29	423	3,280	5,710	1,850	-------	622	800	333	343	531	343	99
30	278	1,640	5,440	1,470	-------	602	828	361	305	365	302	93
31	312	-------	4,270	1,270	-------	582	-------	482	-------	234	242	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,640	68	659	0.558	0.64
November	3,280	395	1,320	1.12	1.25
December	6,100	515	2,700	2.29	2.64
January	3,820	1,010	1,940	1.64	1.89
February	4,000	1,100	1,750	1.48	1.54
March	1,370	582	912	.773	.89
April	7,500	564	1,880	1.59	1.77
May	1,180	293	585	.496	.57
June	607	188	310	.263	.29
July	689	93	256	.217	.25
August	1,860	183	463	.392	.45
September	296	80	154	.131	.15
The year	7,500	68	1,070	.907	12.33

NEUSE RIVER NEAR GOLDSBORO, N.C.

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

DRAINAGE AREA.—2,380 square miles.

RECORDS AVAILABLE.—February 1930 to September 1933.

DISCHARGE.—Maximum during year, 9,660 second-feet Apr. 24 (gage height, 16.34 feet); minimum, 104 second-feet Oct. 1 (gage height, 1.15 feet).

1930–33: Maximum, 11,400 second-feet Aug. 18, 1931 (gage height, 17.50 feet); minimum, 85 second-feet Sept. 14, 1932 (gage height, 1.03 feet).

Maximum stage known, 25.3 feet Oct. 5, 1929 (discharge, 28,600 second-feet).

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	589	3,990	7,980	5,990	3,330	1,480	1,920	764	572	519	852
2	168	572	2,990	8,400	4,450	3,030	1,380	1,780	808	536	405	644
3	155	589	1,980	8,510	3,930	2,700	1,380	1,680	742	536	362	589
4	128	764	1,680	8,080	3,810	2,530	1,380	1,580	682	468	417	519
5	121	1,140	1,480	6,430	3,750	2,360	1,420	1,480	607	420	1,630	436
6	239	942	1,380	4,130	3,690	2,200	1,480	2,830	554	436	3,530	436
7	239	1,140	1,280	3,150	3,690	2,200	1,580	3,690	468	362	3,990	502
8	226	1,630	1,140	2,800	3,630	2,480	1,820	3,210	468	306	3,160	664
9	376	2,820	1,140	2,580	3,630	2,860	2,750	2,970	420	294	1,960	1,400
10	291	3,570	1,120	2,640	4,050	3,030	3,090	2,700	405	261	1,110	1,290
11	261	3,630	1,140	3,420	4,740	2,860	2,530	2,360	436	263	764	942
12	230	3,030	1,280	4,290	5,470	2,530	1,880	1,980	420	263	722	693
13	224	2,580	2,260	4,680	6,070	2,260	1,780	1,720	436	268	920	629
14	215	2,040	3,960	4,800	6,630	2,090	2,140	1,480	572	405	898	2,120
15	174	1,520	5,260	4,540	6,950	1,980	2,480	1,190	682	662	965	2,590
16	174	1,240	5,990	4,540	6,870	2,040	2,640	1,060	502	625	898	1,990
17	279	1,080	6,710	4,870	6,550	2,260	3,790	1,100	452	436	830	1,470
18	556	1,010	7,390	5,260	6,310	2,420	5,160	942	452	348	742	1,120
19	2,530	1,100	8,290	5,610	6,310	2,480	6,150	852	420	318	662	810
20	3,510	1,490	9,060	5,680	6,470	2,640	7,030	808	348	405	764	589
21	3,750	2,860	9,420	5,200	6,550	3,690	7,780	742	326	436	742	452
22	3,140	3,810	8,950	4,230	6,230	4,420	8,620	785	348	436	589	390
23	1,500	3,930	7,370	3,510	5,830	4,610	9,420	764	326	519	536	342
24	830	3,210	5,710	3,090	5,540	4,110	9,660	808	308	420	662	316
25	589	2,360	5,260	2,970	5,060	3,270	9,300	785	329	348	785	296
26	519	1,920	5,330	3,720	4,050	2,640	8,100	764	329	303	988	301
27	519	1,780	5,540	5,000	3,630	2,260	5,720	764	502	282	1,080	270
28	519	2,280	5,910	5,990	3,510	1,980	3,380	701	607	318	1,100	246
29	830	3,330	6,310	6,710	------	1,820	2,530	808	502	405	1,100	232
30	920	3,870	6,790	7,120	------	1,680	2,140	764	536	662	1,080	230
31	662	------	7,390	7,120	------	1,580	------	722	------	625	1,010	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,750	110	774	0.325	0.37
November	3,930	572	2,060	.866	.97
December	9,420	1,120	4,630	1.95	2.25
January	8,510	2,580	5,070	2.13	2.46
February	6,950	3,510	5,120	2.15	2.24
March	4,610	1,580	2,660	1.12	1.29
April	9,660	1,380	4,000	1.68	1.87
May	3,690	701	1,480	.622	.72
June	808	308	492	.207	.23
July	662	261	417	.175	.20
August	3,990	362	1,130	.475	.55
September	2,590	230	779	.327	.36
The year	9,660	110	2,370	1.00	13.51

NEUSE RIVER AT KINSTON, N.C.

LOCATION.—Chain gage at bridge on State highway 12 at Kinston, Lenoir County. Zero of gage is 10.00 feet above mean sea level.

DRAINAGE AREA.—2,700 square miles.

RECORDS AVAILABLE.—February 1930 to September 1933.

DISCHARGE.—Maximum during year, 9,800 second-feet Apr. 26 (gage height, 14.96 feet); minimum, 133 second-feet Oct. 3 (gage height, 1.33 feet).

1930–33: Maximum, 12,000 second-feet Mar. 16, 1932 (gage height, 16.24 feet); minimum, 124 second-feet Sept. 26, 1932 (gage height, 1.29 feet).

Maximum stage known, 24.6 feet July 1919 (discharge, about 39,000 second-feet).

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	153	1,040	3,740	7,050	7,290	4,440	2,060	3,200	1,090	822	864	1,370
2	144	864	4,090	7,410	7,410	4,160	1,960	2,560	1,130	780	780	1,320
3	148	822	3,880	7,780	6,850	3,680	1,910	2,340	1,090	780	664	1,040
4	200	780	3,260	8,170	5,920	3,380	1,860	2,230	1,040	780	594	952
5	213	864	2,180	8,300	5,080	3,140	1,910	2,340	908	700	822	908
6	280	1,460	2,010	8,440	4,680	2,960	1,910	2,560	822	822	1,910	822
7	294	2,180	1,860	7,410	4,520	2,900	1,910	3,080	780	594	3,020	908
8	383	2,780	1,710	5,740	4,600	3,020	2,010	4,230	780	560	3,620	1,320
9	338	2,780	1,610	4,160	4,680	3,140	2,120	4,440	700	494	3,500	1,320
10	368	3,140	1,610	3,560	4,680	3,320	2,340	3,950	664	462	2,670	1,420
11	430	3,620	1,760	3,260	5,000	3,500	3,140	3,500	628	494	1,810	1,710
12	368	3,880	1,910	3,440	5,400	3,440	2,620	3,080	628	700	1,370	1,370
13	353	3,620	1,960	4,140	6,100	3,140	2,720	2,560	628	628	1,180	1,180
14	266	3,200	2,780	4,840	6,650	2,840	2,280	2,230	700	526	1,180	1,090
15	308	2,560	3,950	5,320	6,950	2,670	2,560	1,960	740	560	1,280	1,660
16	338	2,010	4,840	5,480	7,290	2,500	2,900	1,710	864	780	1,230	2,720
17	383	1,760	5,940	5,480	7,530	2,560	3,320	1,510	822	864	1,230	2,620
18	526	1,610	7,050	5,560	7,650	2,780	4,020	1,460	700	740	1,180	2,060
19	594	1,510	7,530	5,740	7,650	2,960	4,680	1,420	664	740	1,230	1,610
20	1,910	1,610	7,910	6,010	7,650	3,080	5,650	1,280	628	740	1,230	1,320
21	2,900	2,120	8,440	6,190	7,650	3,260	6,550	1,230	560	740	1,230	996
22	3,320	3,020	8,720	6,190	7,530	3,680	7,410	1,280	526	780	1,180	822
23	3,320	3,620	9,020	5,830	7,410	4,440	8,580	1,510	526	700	1,180	664
24	2,180	3,880	9,020	4,760	7,170	4,680	8,870	1,510	526	700	1,180	594
25	1,420	3,810	8,300	4,300	6,750	4,680	9,320	1,320	494	526	1,460	526
26	952	3,560	7,050	4,160	6,460	4,370	9,640	1,230	494	594	1,320	462
27	864	2,720	6,550	4,370	5,920	3,740	9,640	1,180	594	594	1,320	430
28	822	2,500	6,280	4,840	5,320	2,900	9,170	1,180	700	560	1,660	430
29	780	2,560	6,280	5,480	-------	2,560	6,850	1,130	740	594	1,710	430
30	908	3,140	6,460	6,280	-------	2,340	4,760	1,130	780	628	1,560	398
31	1,180	-------	6,650	6,850	-------	2,180	-------	1,130	-------	780	1,510	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,320	144	859	0.318	0.37
November	3,880	780	2,430	.900	1.00
December	9,020	1,610	4,980	1.84	2.12
January	8,440	3,260	5,690	2.11	2.43
February	7,650	4,520	6,350	2.35	2.45
March	4,680	2,180	3,300	1.22	1.41
April	9,640	1,860	4,490	1.66	1.85
May	4,440	1,130	2,110	.781	.90
June	1,130	494	732	.271	.30
July	864	462	670	.248	.29
August	3,620	594	1,510	.559	.64
September	2,720	398	1,150	.426	.48
The year	9,640	144	2,840	1.05	14.24

FLAT RIVER AT BAHAMA, N.C.

LOCATION.—Water-stage recorder at head of Lake Michie, 1½ miles above Dial Creek and county highway bridge at Bahama, Durham County.
DRAINAGE AREA.—150 square miles.
RECORDS AVAILABLE.—July 1925 to September 1933.
DISCHARGE.—Maximum during year, 4,750 second-feet May 13 (gage height, 7.38 feet); minimum, 0.94 second-foot Oct. 5 (gage height, 0.43 foot).
1925–33: Maximum, 12,500 second-feet Oct. 2, 1929 (gage height, 10.85 feet); minimum, 0.37 second-foot Sept. 26, 27, 1932 (gage height, 0.23 foot).
REMARKS.—Records good except those estimated May 3–5, which are fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.59	314	80	224	92	112	57	62	150	16.7	8.6	10.8
2	1.32	191	70	166	101	102	55	84	62	12.8	24	10.4
3	1.14	67	59	152	93	94	52	90	44	10.4	27	10.1
4	1.01	45	54	138	96	87	59	80	29	15.9	36	8.9
5	1.48	36	47	127	176	83	57	110	30	12.8	109	137
6	19.5	52	50	112	114	80	86	522	26	9.8	49	53
7	41	824	45	101	93	93	245	245	24	12.8	28	30
8	43	193	44	89	418	152	145	158	24	9.5	21	22
9	25	176	42	828	242	104	94	109	25	7.2	13.9	17.1
10	18.7	336	39	489	145	85	75	87	44	16.3	15.5	16.3
11	14.7	136	90	230	199	74	59	73	369	50	13.6	15.1
12	11.8	79	328	409	392	68	530	59	53	19.5	12.5	15.1
13	10.1	54	480	254	311	68	242	1,720	38	14.7	12.5	15.5
14	9.2	43	686	224	293	80	130	173	36	11.8	13.2	8.0
15	8.6	43	601	289	1,060	85	99	87	26	11.1	12.8	8.0
16	10.1	37	233	210	474	90	1,080	65	21	8.9	11.8	8.0
17	1,350	32	176	173	282	79	1,740	79	11.4	7.7	11.1	8.3
18	1,100	32	178	152	242	77	331	55	10.8	8.9	12.5	7.4
19	141	521	161	136	230	77	285	46	15.9	13.6	12.8	6.4
20	59	274	142	121	456	293	254	40	15.9	11.1	13.6	6.0
21	41	123	130	110	436	254	405	40	19.5	11.4	23	5.2
22	26	80	253	105	233	176	300	245	12.5	9.2	14.7	4.15
23	16.3	63	615	104	191	119	207	77	21	8.3	39	3.30
24	20	90	878	96	166	98	163	52	169	7.7	79	3.15
25	12.5	48	1,480	297	152	79	140	42	35	6.9	22	3.15
26	12.0	1,430	1,320	426	210	73	116	42	22	8.9	15.1	3.00
27	43	420	563	199	149	73	97	42	27	26	13.9	2.56
28	87	180	551	180	123	67	81	116	32	18.7	17.1	2.12
29	40	123	584	132	-------	63	76	47	19.5	15.5	15.1	1.87
30	18.7	97	331	112	-------	58	65	30	19.1	12.0	12.0	1.67
31	22	-------	271	102	-------	58	-------	201	-------	8.9	11.4	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,350	1.01	103	0.687	0.79
November	1,430	32	205	1.37	1.53
December	1,480	39	340	2.27	2.62
January	828	89	209	1.39	1.60
February	1,060	92	256	1.71	1.78
March	293	58	100	.667	.77
April	1,740	52	244	1.63	1.82
May	1,720	30	157	1.05	1.21
June	369	10.8	47.7	.318	.35
July	50	6.9	13.4	.089	.10
August	109	8.6	23.2	.155	.18
September	137	1.67	14.8	.099	.11
The year	1,740	1.01	142	.947	12.86

FLAT RIVER AT DAM NEAR BAHAMA, N.C.

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

DRAINAGE AREA.—171 square miles.

RECORDS AVAILABLE.—August 1927 to September 1933.

DISCHARGE.—Maximum during year, 2,350 second-feet Apr. 17 (gage height, 8.17 feet); minimum, 1.3 second-feet several times in October (gage height, 1.01 feet).

1927–33: Maximum, 11,400 second-feet Oct. 2, 1929 (gage height, 16.72 feet); minimum, 0.4 second-foot Dec. 21–24, 1928 (gage height, 0.91 foot).

REMARKS.—Records good except those estimated May 12–22, Aug. 30 to Sept. 2, which are poor. Flow regulated by storage reservoir. Diversion for Durham water supply above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	69	235	284	253	282	71	232	64	31	23	6.0
2	1.6	57	208	257	208	275	49	84	66	28	8.8	6.7
3	1.6	114	242	246	202	271	64	59	70	29	6.8	7.4
4	1.6	154	138	252	205	278	64	65	60	34	6.4	7.4
5	2.0	145	205	258	143	241	66	74	49	31	4.8	5.8
6	2.4	124	220	247	218	220	62	70	68	26	4.3	32
7	1.6	171	264	263	242	215	57	180	70	24	3.8	8.4
8	1.6	194	223	250	233	205	64	201	77	31	39	3.8
9	1.6	187	207	261	202	209	51	206	73	22	8.2	8.7
10	1.6	190	215	233	203	205	64	208	85	3.3	7.4	4.3
11	1.6	165	154	263	200	207	60	120	70	7.4	5.4	4.3
12	1.6	186	217	291	143	160	59	70	75	3.6	4.8	4.3
13	1.6	172	217	342	219	215	136	280	76	6.0	4.3	38
14	1.6	206	199	297	235	95	221	280	72	5.8	4.8	12
15	2.0	207	193	335	105	68	263	180	66	3.8	7.0	4.3
16	2.4	196	238	329	353	69	240	230	73	3.6	29	12
17	2.8	118	195	276	397	63	1,250	190	72	3.6	7.2	6.8
18	23	210	115	274	352	63	445	190	61	3.8	3.8	5.2
19	66	214	235	262	287	59	326	200	69	3.8	4.3	6.8
20	80	150	243	251	324	67	302	210	76	3.8	3.8	35
21	68	205	248	261	511	62	295	110	76	32	4.3	4.8
22	59	196	210	245	371	70	353	150	71	4.3	4.8	4.8
23	64	215	204	271	291	41	271	221	82	4.3	28	8.9
24	61	169	578	271	286	47	249	134	75	3.6	12	9.9
25	68	207	1,330	243	274	65	256	40	68	11	4.3	5.9
26	61	210	1,460	214	235	57	259	53	79	8.2	8.3	4.8
27	40	203	626	210	282	57	257	80	51	9.2	3.8	35
28	60	289	634	204	279	68	251	71	37	4.8	3.8	4.8
29	68	243	574	240	-------	53	278	72	14	4.3	3.8	4.8
30	54	212	444	302	-------	55	247	75	24	4.3	4.5	5.4
31	64	-------	351	269	-------	63	-------	65	-------	4.3	5.2	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	80	1.6	28.0	0.164	0.19
November	289	57	179	1.05	1.17
December	1,460	115	349	2.04	2.35
January	342	204	265	1.55	1.79
February	511	105	258	1.51	1.57
March	282	41	132	.772	.89
April	1,250	49	221	1.29	1.44
May	280	40	142	.830	.96
June	85	14	65.6	.384	.43
July	34	3.3	12.7	.074	.09
August	39	3.8	8.70	.051	.06
September	38	3.8	10.3	.060	.07
The year	1,460	1.6	139	.813	11.01

DIAL CREEK NEAR BAHAMA, N.C.

LOCATION.—Water-stage recorder three-eighths of a 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 1933.

DISCHARGE.—Maximum during year, 127 second-feet Oct. 17 (gage height, 3.30 feet); no flow at times in October, July, and September.

1925–33: Maximum, 575 second-feet Apr. 27, 1928 (gage height, 5.60 feet); no flow at times in 1926, 1930–33.

REMARKS.—Records good below and fair above 10 second-feet. Discharge determined by weir formulae, checked by current-meter measurements below 15 second-feet.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	9.7	2.05	4.46	3.12	3.12	1.94	2.00	0.74	0.03	0.37	0.30
2	0	2.83	1.79	3.79	3.19	2.91	1.84	2.42	.55	.0[illegible]	.17	.26
3	0	1.36	1.64	3.56	2.84	2.78	1.84	3.41	.46	.0[illegible]	15.6	.20
4	0	.97	1.54	3.48	4.51	2.65	1.79	2.00	.43	0	6.9	.16
5	1.27	.87	1.45	3.19	4.29	2.52	1.64	3.24	.37	0	5.3	.95
6	8.6	4.24	1.32	2.91	2.91	2.46	4.50	4.58	.30	0	.84	.28
7	.40	10.0	1.28	2.78	3.54	3.70	6.8	2.84	.26	0	.43	.23
8	.06	3.26	1.24	2.52	8.2	3.77	3.19	2.34	.23	0	.31	.16
9	.02	8.7	1.16	17.1	4.12	2.71	2.65	1.84	.18	0	.23	.12
10	.01	5.6	1.28	8.2	3.33	2.52	2.28	1.74	.18	1.3[illegible]	.19	.12
11	.01	2.65	4.00	5.5	7.8	2.28	2.11	1.50	.22	11.0	.22	.11
12	0	1.79	7.7	7.0	7.9	2.34	8.1	1.50	.28	1.40	.15	.05
13	0	1.36	13.8	4.73	6.1	2.40	3.79	2.60	.19	.46	.07	.03
14	0	1.12	20	10.0	6.9	2.58	2.84	1.28	.12	.26	.11	.03
15	0	1.04	13.4	11.0	18.6	4.64	2.58	1.01	.08	.19	.11	.07
16	2.24	.94	6.0	7.6	10.9	2.84	25	1.01	.08	.15	.04	.05
17	51	.94	4.73	5.8	7.4	2.78	15.1	.97	.07	.15	.48	.05
18	6.4	.87	4.34	4.91	6.9	2.71	6.5	.90	.04	.23	.12	.04
19	1.84	17.1	3.95	4.37	5.9	2.71	6.3	.80	.02	.13	.05	.01
20	1.04	5.7	3.79	3.87	10.9	4.20	5.2	.77	.01	.11	3.56	0
21	.66	2.91	3.56	3.56	7.3	3.95	8.2	.71	.01	.12	1.45	0
22	.46	2.00	11.1	3.41	5.5	3.05	5.9	2.47	.01	.07	.41	0
23	.37	1.54	14.0	3.19	5.1	2.78	4.37	.94	.01	.03	5.1	0
24	.31	1.41	19.5	2.84	4.29	2.52	3.71	.74	2.02	.0[illegible]	1.59	0
25	.28	1.32	26	19.7	4.20	2.40	3.33	.71	.25	.0[illegible]	.39	0
26	.26	32	25	10.0	4.12	2.52	2.91	.58	.31	2.8[illegible]	.22	0
27	.33	8.0	15.0	6.8	3.71	2.28	2.58	1.31	.98	.5[illegible]	.18	0
28	.48	3.95	12.1	5.0	3.19	2.22	2.46	2.74	.20	.8[illegible]	1.77	0
29	.30	2.91	11.5	3.87	-------	2.05	2.22	.84	.11	.2[illegible]	1.42	0
30	.25	2.34	7.8	3.41	-------	1.94	2.05	.71	.07	.0[illegible]	.39	0
31	.23	-------	6.5	3.12	-------	1.94	-------	1.01	-------	.73	.28	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	51	0	2.48	0.506	0.58
November	32	.87	4.65	.949	1.06
December	26	1.16	8.02	1.64	1.89
January	19.7	2.52	5.86	1.20	1.38
February	18.6	2.84	5.96	1.22	1.27
March	4.64	1.94	2.78	.567	.65
April	25	1.64	4.79	.978	1.09
May	4.58	.58	1.66	.339	.39
June	2.02	.01	.293	.060	.07
July	11.0	0	.679	.139	.16
August	15.6	.04	1.56	.318	.37
September	.95	0	.107	.022	.03
The year	51	0	3.22	.657	8.94

LITTLE RIVER NEAR PRINCETON, N.C.

LOCATION.—Staff gage a quarter of a mile above county bridge, three-quarters of a mile above Little Creek, and 3 miles north of Princeton, Johnston County.
DRAINAGE AREA.—221 square miles.
RECORDS AVAILABLE.—February 1930 to September 1933.
DISCHARGE.—Maximum during year, 1,430 second-feet Jan. 27 (gage height, 7.20 feet); minimum, 1.0 second-foot Oct. 2, 3 (gage height, 0.30 foot).

1930–33: Maximum, 2,380 second-feet Aug. 15, 1931 (gage height, 10.06 feet); minimum, 1.0 second-foot several times in September 1932 and Oct. 2, 3, 1932.

Maximum known gage height, 14.90 feet September 1924.
REMARKS.—Records fair. Daily regulation from operation of mill upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	95	106	459	332	230	120	136	67	28	61	33
2	1.0	62	97	384	384	213	128	111	54	35	36	28
3	1.0	32	145	315	366	213	145	120	40	61	60	33
4	1.4	57	95	281	332	188	128	120	39	38	154	29
5	1.4	60	111	264	366	170	154	111	36	38	204	38
6	12	10	74	230	332	188	170	154	34	33	179	35
7	15	106	73	213	264	179	179	162	28	24	136	37
8	5.7	204	62	204	349	349	204	162	25	14	90	162
9	9.2	213	73	213	459	366	213	136	30	11	72	65
10	7.2	170	66	402	384	264	196	128	33	5.7	54	21
11	9.2	128	56	440	604	230	170	100	31	20	45	13
12	6.8	136	204	332	1,030	179	179	89	32	21	45	15
13	4.5	103	366	298	864	179	230	89	65	13	39	204
14	5.4	120	582	315	628	154	213	79	38	15	57	213
15	9.2	74	972	384	582	170	188	60	27	19	38	76
16	12	61	999	498	582	196	264	66	28	16	28	45
17	36	61	837	498	560	213	837	50	25	11	62	38
18	28	57	704	459	498	213	1,140	54	17	28	27	29
19	170	76	582	384	478	204	730	43	18	23	27	27
20	136	230	498	332	459	459	560	51	23	19	26	17
21	128	298	459	298	478	560	582	46	15	29	24	15
22	92	264	440	247	478	498	582	62	7.6	38	29	15
23	32	213	459	247	402	298	539	58	14	54	43	76
24	62	170	459	213	349	247	440	57	13	36	51	41
25	45	162	421	349	298	204	366	60	14	28	74	16
26	32	120	402	1,190	298	188	298	54	13	18	63	5.4
27	36	136	459	1,340	298	170	230	48	22	22	120	7.6
28	37	179	678	999	281	162	196	111	39	63	56	8.0
29	24	162	704	756	------	145	170	84	76	88	69	8.0
30	41	154	678	539	------	136	154	70	51	120	50	7.2
31	145	------	560	402	------	128	------	62	------	111	41	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	170	1.0	37.0	0.167	0.19
November	298	10	130	.588	.66
December	999	56	401	1.81	2.09
January	1,340	204	435	1.97	2.27
February	1,030	264	455	2.06	2.14
March	560	128	235	1.06	1.22
April	1,140	120	324	1.47	1.64
May	162	43	88.2	.399	.46
June	76	7.6	31.8	.144	.16
July	120	5.7	34.8	.157	.18
August	204	24	66.5	.301	.35
September	213	5.4	45.2	.205	.23
The year	1,340	1.0	189	.855	11.59

CONTENTNEA CREEK NEAR WILSON, N.C.

LOCATION.—Staff gage at municipal power plant at State highway bridge 1 mile above Atlantic Coast Line Railroad bridge and 3 miles southwest of Wilson, Wilson County.

DRAINAGE AREA.—245 square miles.

RECORDS AVAILABLE.—February 1930 to September 1933.

DISCHARGE.—Maximum during year, 1,400 second-feet Jan. 28 (gage height, 6.11 feet); minimum, 0.2 second-foot several days in October (gage height, 0.40 foot).

1930–33: Maximum, 2,140 second-feet Aug. 15, 1931 (gage height, 7.97 feet); minimum, that of October 1932.

REMARKS.—Records good. Flow regulated by storage in pond just above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	39	118	495	383	336	172	156	151	40	24	5.2
2	.6	1.2	55	383	357	320	57	103	31	45	5.8	30
3	.6	140	117	357	383	294	161	103	30	320	5.8	7.6
4	.6	1.7	56	320	383	320	138	103	40	22	72	7.6
5	.4	1.7	98	320	383	107	167	146	33	2.8	64	7.6
6	.2	1.7	87	320	383	183	161	172	11	2.8	357	7.6
7	.2	151	54	320	357	260	237	34	5.2	2.8	142	7.6
8	.2	233	49	120	338	357	193	239	5.2	2.8	5.2	136
9	.2	328	52	249	383	383	210	76	35	2.8	23	6.0
10	.2	186	119	383	410	383	288	127	34	2.8	23	8.2
11	.2	156	75	438	524	343	124	52	46	47	35	3.2
12	.2	124	253	438	797	106	161	52	119	4.2	34	2.8
13	.2	55	283	383	828	238	165	62	116	4.2	5.2	2.8
14	.2	55	524	357	797	116	213	49	24	4.2	24	2.8
15	.2	56	828	357	704	217	190	40	25	4.2	24	2.8
16	.4	56	891	383	614	116	224	37	26	4.2	4.7	2.8
17	.5	88	891	466	543	332	584	35	26	4.2	4.7	2.8
18	64	46	828	495	554	214	923	35	7.0	269	4.7	2.8
19	269	181	614	438	495	182	987	4.7	7.0	183	24	2.8
20	269	322	438	383	438	357	925	47	7.0	138	4.7	2.8
21	209	272	383	353	466	466	704	36	7.0	48	4.7	2.8
22	.9	253	383	282	495	524	554	4.7	7.0	147	4.7	2.8
23	.8	194	410	299	466	466	554	107	7.0	3.4	135	2.8
24	.8	39	466	320	410	345	584	120	7.0	3.4	3.9	2.8
25	36	161	495	614	357	338	495	35	7.0	23	34	2.8
26	1.3	150	495	891	306	98	383	46	27	24	84	2.8
27	92	55	495	1,290	306	239	183	72	77	53	75	2.8
28	1.3	161	584	1,400	336	98	209	181	357	41	39	2.8
29	83	97	644	1,260	-------	161	125	258	169	61	3.9	2.8
30	2.3	140	674	828	-------	161	56	95	22	53	24	2.8
31	50	-------	614	466	-------	98	-------	34	-------	33	5.2	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	269	0.2	35.0	0.143	0.16
November	328	1.2	125	.510	.57
December	891	49	393	1.60	1.84
January	1,400	120	497	2.03	2.34
February	828	306	471	1.92	2.00
March	524	98	263	1.07	1.23
April	987	56	338	1.38	1.54
May	258	4.7	85.9	.351	.40
June	357	5.2	48.8	.199	.22
July	320	2.8	51.5	.210	.24
August	357	3.9	41.9	.171	.20
September	136	2.8	9.33	.038	.04
The year	1,400	.2	195	.796	10.78

CONTENTNEA CREEK AT HOOKERTON, N.C.

LOCATION.—Staff gage just below the East Carolina Railway bridge at Hookerton, Greene County.
DRAINAGE AREA.—691 square miles.
RECORDS AVAILABLE.—November 1928 to September 1933.
DISCHARGE.—Maximum during year, 2,620 second-feet Apr. 23 (gage height, 12.18 feet); minimum, 26 second-feet Oct. 5 (gage height, 1.47 feet).
1928–33: Maximum, 11,100 second-feet Oct. 6, 1929 (gage height, 18.9 feet); minimum, 13 second-feet Sept. 16, 17, 1932 (gage height, 1.17 feet).
REMARKS.—Records poor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	142	359	1,430	2,180	1,140	343	705	392	479	889	147
2	32	125	359	1,400	2,230	1,060	343	497	296	575	868	136
3	28	110	343	1,430	2,100	973	375	426	281	497	826	120
4	28	120	296	1,360	1,880	868	392	426	237	426	805	110
5	26	125	266	1,210	1,720	785	426	375	209	392	551	105
6	29	147	266	1,020	1,530	725	443	973	159	296	327	105
7	36	171	251	847	1,360	705	479	1,210	147	237	281	120
8	78	183	237	745	1,330	847	570	1,140	130	183	266	120
9	125	183	237	685	1,300	889	627	1,020	110	147	237	105
10	159	183	209	745	1,240	910	570	765	92	142	209	100
11	171	171	209	785	1,360	952	533	551	82	159	196	96
12	142	171	266	805	1,640	973	589	533	92	153	209	100
13	110	183	426	910	1,840	973	589	461	110	130	223	110
14	78	209	705	1,040	2,050	952	551	296	142	105	281	115
15	57	209	1,120	1,120	2,230	847	515	281	183	120	237	409
16	46	196	1,330	1,160	2,320	805	497	237	209	147	251	409
17	74	171	1,500	1,240	2,320	847	745	237	153	159	266	266
18	87	159	1,600	1,360	2,280	910	1,140	209	142	171	153	223
19	96	153	1,800	1,400	2,280	745	1,400	183	136	198	125	209
20	100	209	1,920	1,400	2,230	805	1,680	171	130	209	115	209
21	110	343	1,920	1,360	2,100	973	2,180	183	125	251	110	196
22	120	479	1,880	1,300	1,960	1,140	2,520	237	120	608	115	183
23	136	570	1,800	1,160	1,840	1,360	2,570	327	125	646	147	171
24	147	608	1,600	1,060	1,720	1,640	2,470	409	130	665	171	171
25	153	551	1,430	910	1,600	1,800	2,320	443	147	685	183	159
26	136	443	1,360	1,020	1,530	1,800	2,050	409	136	665	209	125
27	125	392	1,240	1,160	1,400	1,500	1,840	327	209	705	223	110
28	110	426	1,210	1,360	1,190	1,160	1,500	343	281	765	223	87
29	120	409	1,270	1,560	-------	889	1,240	296	409	847	196	82
30	130	359	1,330	1,800	-------	589	1,100	327	443	868	183	74
31	153	-------	1,400	1,960	-------	375	-------	409	-------	889	159	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	171	26	96.0	0.139	0.16
November	608	110	263	.381	.43
December	1,920	209	972	1.41	1.63
January	1,960	685	1,190	1.72	1.98
February	2,320	1,190	1,810	2.62	2.73
March	1,800	375	998	1.44	1.66
April	2,570	343	1,090	1.58	1.76
May	1,210	171	465	.673	.78
June	443	82	185	.268	.30
July	889	105	402	.582	.67
August	889	110	298	.431	.50
September	409	74	156	.226	.25
The year	2,570	26	653	.945	12.85

CAPE FEAR RIVER BASIN

HAW RIVER NEAR BENAJA, N.C.

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

DRAINAGE AREA.—168 square miles.

RECORDS AVAILABLE.—October 1928 to September 1933.

DISCHARGE.—Maximum during year, 1,680 second-feet Oct. 19 (gage height, 7.85 feet); minimum, 13.0 second-feet July 10 (gage height, 0.95 foot).

1928–33: Maximum, 5,020 second-feet Oct. 3, 1929 (gage height, 13.54 feet); minimum, 6.3 second-feet Sept. 1, 1932 (gage height, 0.73 foot).

REMARKS.—Slight daily regulation, owing to operation of gristmills. Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	202	123	496	136	136	118	91	120	34	32	55
2	26	276	111	410	134	127	114	91	66	27	55	51
3	23	266	103	353	130	123	114	99	58	21	89	40
4	23	208	96	287	137	120	118	96	51	28	127	69
5	34	134	92	236	155	118	111	106	42	18.5	154	342
6	101	125	91	193	148	113	121	287	42	19.5	123	508
7	106	216	86	170	150	128	148	276	51	20	61	470
8	57	234	83	155	232	152	143	228	42	15.5	44	276
9	44	254	78	273	266	150	118	157	39	15.0	38	106
10	35	276	83	386	266	136	106	113	39	14.6	36	62
11	36	266	123	375	254	120	101	104	43	30	30	50
12	33	254	186	434	240	111	192	106	42	64	26	49
13	28	203	230	364	242	108	266	134	42	51	33	48
14	26	143	298	309	244	113	266	127	38	40	46	64
15	28	113	353	276	298	123	236	88	33	33	43	49
16	42	99	342	222	364	136	191	80	30	30	65	45
17	697	98	331	189	364	130	193	91	28	23	132	44
18	1,550	98	256	170	353	118	193	74	28	33	186	35
19	1,580	159	220	159	298	121	178	66	25	28	168	36
20	968	201	208	150	309	205	193	61	27	45	82	32
21	470	214	180	143	320	298	216	68	24	43	55	33
22	309	188	178	134	309	386	205	125	24	39	47	24
23	197	141	248	132	287	386	178	69	20	25	47	27
24	96	113	364	130	240	309	152	57	42	19.0	46	23
25	76	101	583	145	195	236	134	53	33	19.5	40	21
26	69	197	932	188	176	176	121	51	28	21	34	26
27	127	240	1,140	212	155	152	111	46	28	20	33	21
28	120	234	1,050	208	141	139	99	48	33	59	36	19.5
29	91	188	1,020	189	-------	130	99	45	28	77	150	23
30	76	141	793	159	-------	118	94	424	49	49	99	22
31	69	-------	596	143	-------	118	-------	356	-------	34	56	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,580	23	231	1.38	1.59
November	276	98	186	1.11	1.24
December	1,140	78	341	2.03	2.34
January	496	130	238	1.42	1.64
February	364	130	234	1.39	1.45
March	386	108	162	.964	1.11
April	266	94	154	.917	1.02
May	424	45	123	.732	.84
June	120	20	39.8	.237	.26
July	77	14.6	32.1	.191	.22
August	186	26	71.4	.425	.49
September	508	19.5	89.0	.530	.59
The year	1,580	14.6	158	.943	12.79

HAW RIVER AT HAW RIVER, N.C.

LOCATION.—Water-stage recorder 400 feet below Southern Railway bridge at Haw River, Alamance County.
DRAINAGE AREA.—592 square miles.
RECORDS AVAILABLE.—October 1928 to September 1933.
DISCHARGE.—Maximum during year, 7,520 second-feet Oct. 17 (gage height, 14.51 feet); minimum, 12 second-feet Sept. 28 (gage height, 1.12 feet).
1928–33: Maximum, 18,400 second-feet Feb. 28, 1929 (gage height, 23.96 feet); minimum, 3 second-feet Sept. 5, 1930.
REMARKS.—Daily regulation present. Records excellent except those estimated Oct. 24–26 and Aug. 22–28, which are poor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	1,640	456	1,510	440	472	294	257	484	119	117	101
2	53	1,200	440	1,100	394	456	288	262	292	47	131	125
3	64	734	410	890	361	350	294	347	195	115	124	146
4	95	538	318	772	350	327	294	283	199	62	480	218
5	64	425	294	734	488	313	291	229	219	113	659	800
6	132	487	264	623	425	313	318	880	183	102	428	724
7	371	1,940	254	571	394	332	488	659	170	51	303	708
8	213	978	242	521	1,280	456	504	488	144	94	244	444
9	130	972	244	2,050	1,030	410	440	379	136	40	225	239
10	114	1,480	229	2,230	753	440	352	379	103	94	169	158
11	71	814	355	1,360	792	425	291	370	103	89	114	158
12	74	571	1,080	2,040	1,080	394	1,490	324	177	51	52	114
13	54	521	1,580	1,410	870	321	1,110	425	130	95	60	119
14	101	440	2,150	972	931	304	696	410	127	129	218	120
15	92	315	2,260	890	2,170	391	606	301	147	124	237	125
16	58	352	1,370	696	1,720	440	588	213	155	64	189	61
17	5,230	302	972	588	1,280	358	772	181	140	118	318	36
18	6,580	270	772	606	1,080	324	521	194	58	108	877	96
19	4,020	492	696	571	931	310	697	176	110	53	942	110
20	1,840	850	641	488	1,580	656	792	124	102	101	588	123
21	914	641	659	504	1,850	1,270	772	169	37	111	356	52
22	606	456	888	472	1,230	1,280	588	355	36	94	300	102
23	472	394	2,040	394	890	993	488	258	106	47	260	50
24	470	391	2,900	361	753	772	440	232	194	106	240	22
25	470	391	4,630	382	659	606	373	201	137	114	240	69
26	470	2,390	4,580	792	623	521	394	143	168	95	220	40
27	472	1,680	3,610	623	521	425	367	100	157	145	180	16
28	376	906	3,260	696	410	364	291	104	197	134	150	80
29	275	538	3,410	588	-------	425	264	157	109	207	179	44
30	217	472	2,430	472	-------	382	246	2,050	121	164	231	48
31	222	-------	1,760	394	-------	318	-------	3,200	-------	153	182	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,580	53	788	1.33	1.53
November	2,390	270	786	1.33	1.48
December	4,630	229	1,460	2.47	2.85
January	2,230	361	848	1.43	1.65
February	2,170	350	903	1.53	1.59
March	1,280	304	489	.826	.95
April	1,490	246	512	.865	.97
May	3,200	100	447	.755	.87
June	484	36	155	.262	.29
July	207	40	101	.171	.20
August	942	52	291	.492	.57
September	800	16	175	.296	.33
The year	6,580	16	579	.978	13.28

HAW RIVER NEAR PITTSBORO, N.C.

LOCATION.—Water-stage recorder 2 miles below highway bridge on State Highway 90, about 100 feet above Robinsons Creek, and 5 miles east of Pittsboro, Chatham County. Zero of gage is 180.08 feet above mean sea level.

DRAINAGE AREA.—1,340 square miles.

RECORDS AVAILABLE.—November 1928 to September 1933.

DISCHARGE.—Maximum during year, 15,100 second-feet Oct. 17 (gage height, 13.00 feet); minimum, 17 second-feet Sept. 30 (gage height, 1.31 feet).

1928–33: Maximum, 47,300 second-feet Oct. 2, 1929 (gage height, 22.1 feet); minimum, 9 second-feet Oct. 13, 1930.

Flood of August 1908 reached a stage of about 32.1 feet (discharge, estimated, 98,000 second-feet).

REMARKS.—Records good. Daily regulation present.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	1,120	938	2,810	866	1,010	650	530	1,680	247	261	393
2	46	3,410	874	2,200	938	1,010	618	516	730	38	333	250
3	173	1,460	810	1,760	898	930	594	502	439	196	578	116
4	160	1,000	714	1,580	866	794	610	562	338	191	330	190
5	85	778	610	1,450	1,140	746	578	530	196	39	805	354
6	278	706	602	1,320	1,140	730	706	523	261	60	1,180	1,220
7	390	6,060	523	1,140	898	770	1,700	1,590	216	115	592	903
8	545	3,240	460	1,090	1,920	994	1,400	986	196	102	481	795
9	283	1,860	432	2,090	2,620	1,050	994	770	212	43	391	513
10	297	2,900	460	6,360	1,680	882	850	634	216	61	259	303
11	240	1,940	584	2,950	1,680	850	722	602	134	154	287	378
12	311	1,270	3,860	2,640	2,920	810	1,150	586	200	212	224	267
13	179	962	5,150	3,320	2,350	770	3,370	570	163	424	83	224
14	69	874	6,830	2,250	2,000	722	1,680	666	83	236	300	80
15	57	714	8,310	2,350	3,910	1,050	1,220	618	256	126	265	92
16	46	570	3,500	2,350	5,070	1,630	1,390	495	188	50	183	207
17	8,840	570	2,450	1,720	2,810	1,050	3,030	332	114	100	291	73
18	10,800	530	1,810	1,450	2,250	850	1,760	292	51	128	291	132
19	6,240	882	1,630	1,360	2,050	778	1,180	292	152	166	1,010	99
20	2,940	1,800	1,450	1,270	2,120	1,420	1,540	252	156	162	978	102
21	1,740	1,320	1,360	1,090	4,220	2,200	1,540	261	86	190	762	85
22	1,050	970	1,540	1,050	2,500	2,600	1,580	270	153	316	597	56
23	786	754	4,400	1,010	1,950	1,900	1,220	518	64	160	464	109
24	658	658	5,840	906	1,630	1,500	1,010	439	127	251	409	37
25	523	642	9,150	1,380	1,450	1,220	858	370	30	141	332	73
26	397	4,700	12,500	1,950	1,720	1,050	762	276	132	95	199	122
27	78	6,500	7,170	1,580	1,500	870	746	286	265	116	86	80
28	886	2,280	6,640	1,450	1,090	834	674	163	247	106	226	30
29	650	1,400	5,860	1,320	-------	754	562	180	152	181	1,020	31
30	432	1,050	4,600	1,090	-------	794	488	166	174	62	706	18
31	377	-------	3,360	914	-------	738	-------	3,770	-------	234	492	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	10,800	46	1,280	0.955	1.10
November	6,500	530	1,760	1.31	1.46
December	12,500	432	3,370	2.51	2.89
January	6,360	906	1,850	1.38	1.59
February	5,070	866	2,010	1.50	1.56
March	2,600	722	1,080	.806	.93
April	3,370	488	1,170	.873	.97
May	3,770	163	598	.446	.51
June	1,680	30	247	.184	.21
July	424	38	151	.113	.13
August	1,180	83	465	.347	.40
September	1,220	18	244	.182	.20
The year	12,500	18	1,180	.881	11.95

CAPE FEAR RIVER AT LILLINGTON, N.C.

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

DRAINAGE AREA.—3,530 square miles.

RECORDS AVAILABLE.—December 1923 to September 1933.

DISCHARGE.—Maximum during year, 29,200 second-feet Oct. 18 (gage height, 13.75 feet); minimum,61 second-feet Oct. 3 (gage height, 0.33 foot).

1923–33: Maximum, 101,000 second-feet Oct. 2, 1929 (gage height, 27.55 feet); minimum, 8 second-feet Oct. 8, 1926 (gage height, 0.01 foot).

REMARKS.—Records good except those estimated Oct. 6–8, Nov. 10–22, Aug. 6 to Sept. 20, which are fair. Large diurnal fluctuation caused by operation of Buckhorn power plant 14 miles above.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	238	940	2,700	6,880	2,550	2,840	1,660	1,200	3,150	794	596	
2	73	4,090	2,070	5,350	2,720	2,600	1,540	1,250	1,470	394	260	
3	143	3,560	1,830	4,400	2,930	2,490	1,540	1,340	998	341	829	850
4	367	2,520	1,580	3,800	2,810	2,320	1,480	1,230	536	359	1,330	
5	238	1,780	1,480	3,360	3,800	1,680	1,400	1,420	635	161	2,550	
6	280	1,440	1,330	3,080	4,100	2,230	1,600	1,540	264	78		
7	1,560	11,200	1,290	2,820	3,200	1,930	5,840	2,250	648	73		
8	1,450	13,900	1,210	2,540	3,860	2,040	6,900	2,360	705	312	2,200	1,900
9	1,090	6,020	944	3,810	7,460	3,060	3,950	1,780	238	172		
10	555	5,500	1,190	13,200	5,510	2,500	2,850	1,480	665	75		
11	675	4,500	1,350	9,230	5,220	2,160	2,160	1,380	305	74		
12	440	3,500	10,900	6,010	10,800	2,040	2,520	1,330	447	557		
13	284	2,300	19,000	6,520	8,560	1,900	7,670	1,190	279	428	600	1,200
14	184	2,000	20,900	5,350	6,350	1,780	5,220	1,190	674	808		
15	416	1,800	26,600	6,030	6,460	2,460	3,420	1,070	255	648		
16	203	1,800	17,800	8,750	12,200	4,950	4,010	1,010	414	195		
17	10,700	1,800	8,980	7,070	8,450	3,800	8,580	788	454	406		
18	27,300	1,800	6,700	5,670	6,180	2,780	5,960	698	175	255	1,400	550
19	23,000	1,800	5,190	4,710	5,510	2,470	4,400	610	78	177		
20	12,300	2,900	4,100	3,950	5,510	2,980	4,400	610	164	572		
21	4,490	3,500	3,950	3,350	10,300	5,520	3,950	533	301	450		334
22	2,660	3,200	4,550	2,920	8,190	6,180	3,800	1,260	82	646		260
23	1,450	2,510	10,600	2,800	5,670	5,140	3,420	918	456	314	1,300	79
24	1,620	1,920	13,800	2,650	4,400	3,580	2,850	913	206	412		74
25	1,220	1,580	16,300	3,290	3,800	2,850	2,360	890	251	362		74
26	896	2,300	23,800	11,800	3,460	2,430	2,040	468	650	78		74
27	914	11,900	21,900	7,910	3,950	2,160	1,840	710	284	321		292
28	910	6,980	19,900	5,350	3,500	2,040	1,660	682	542	267	1,000	236
29	1,210	4,270	15,700	4,550	-------	1,840	1,460	635	457	322		82
30	960	3,420	13,000	3,650	-------	1,780	1,300	250	184	191		82
31	859	-------	9,210	2,890	-------	1,720	-------	2,020	-------	78		------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	27,300	73	3,180	0.901	1.04
November	13,900	940	3,890	1.10	1.23
December	26,600	944	9,350	2.65	3.06
January	13,200	2,540	5,280	1.50	1.73
February	12,200	2,550	5,620	1.59	1.66
March	6,180	1,680	2,780	.788	.91
April	8,580	1,300	3,390	.960	1.07
May	2,360	250	1,130	.320	.37
June	3,150	78	532	.151	.17
July	808	73	333	.094	.11
August	2,550	260	1,230	.348	.40
September	----------	74	803	.227	.25
The year	27,300	73	3,120	.884	12.00

CAPE FEAR RIVER AT FAYETTEVILLE, N.C.

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

DRAINAGE AREA.—4,290 square miles.

RECORDS AVAILABLE.—January 1889 to May 1903, September 1928 to September 1933.

DISCHARGE.—Maximum during year, 30,500 second-feet Dec. 16 (gage height, 33.34 feet); minimum, 186 second-feet July 9 (gage height, 0.77 foot).

1889–1903, 1928–33: Maximum, 110,000 second-feet Oct. 4, 1929 (gage height, 63.43 feet); minimum, 73 second-feet Oct. 6, 1930.

Maximum known, 133,000 second-feet (estimated) Aug. 29, 1908 (gage height, about 68.0 feet).

REMARKS.—Records fair. Discharge estimated Nov. 16–18. Regulation during low-water periods from operation of Buckhorn Shoals power plant.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	475	1,220	3,960	10,900	4,380	4,520	2,270	1,670	3,210	615	440	2,380
2	368	2,340	2,980	8,700	4,450	4,730	2,120	1,670	2,450	860	780	1,770
3	242	4,240	2,740	6,900	4,660	3,680	2,020	1,720	1,770	685	720	1,370
4	217	3,340	2,270	5,640	4,590	3,540	2,120	1,770	1,120	492	1,220	840
5	362	2,560	2,070	5,080	4,870	3,160	2,070	1,770	720	492	2,760	1,360
6	422	2,220	2,070	4,590	5,660	2,740	2,020	2,800	820	375	7,150	2,740
7	553	7,370	1,970	4,240	5,430	3,100	3,840	3,100	562	260	4,340	4,730
8	1,180	18,000	1,870	3,750	5,150	3,400	8,360	3,750	740	220	2,980	4,450
9	1,460	9,730	1,770	3,540	8,980	3,890	5,900	3,220	800	229	1,920	3,890
10	1,040	7,660	1,570	11,200	8,540	4,100	3,980	2,560	492	302	1,270	2,500
11	720	7,000	1,870	12,600	8,600	3,540	3,280	2,380	668	310	900	1,970
12	780	5,000	6,330	8,600	13,200	3,040	2,680	2,170	510	668	800	1,420
13	562	3,540	19,000	8,450	13,300	2,860	6,430	1,970	510	920	1,040	2,120
14	440	2,920	23,600	7,700	10,300	2,740	7,240	1,620	528	840	920	2,620
15	304	2,620	29,600	7,280	9,260	2,800	4,700	1,470	685	920	1,220	1,770
16	458	2,500	24,800	10,700	13,600	4,790	5,350	1,420	475	740	1,670	1,120
17	2,870	2,500	15,400	11,000	12,800	5,430	11,400	1,320	440	475	2,020	900
18	26,300	2,600	11,800	8,520	10,000	4,450	10,500	1,080	510	650	2,320	685
19	25,800	2,860	9,350	7,340	9,600	4,000	7,140	920	355	702	2,920	685
20	16,900	4,480	7,340	6,100	8,680	3,540	6,280	840	260	840	3,100	615
21	7,280	5,430	6,180	5,080	11,900	6,050	5,980	760	254	1,720	3,160	416
22	4,670	4,940	6,380	4,450	12,500	7,466	5,290	880	368	1,520	2,680	492
23	2,670	4,030	10,200	4,100	9,320	7,200	4,800	1,620	260	1,420	2,170	528
24	1,870	3,280	15,600	3,890	7,440	5,440	4,170	1,220	410	920	2,020	314
25	1,770	2,560	18,100	4,270	6,020	4,450	3,540	1,120	375	760	1,570	262
26	1,520	2,380	23,400	12,500	5,360	3,470	3,040	1,040	355	650	1,420	266
27	1,270	9,220	26,600	12,400	5,220	3,040	2,620	780	780	410	1,620	254
28	1,320	9,740	26,300	8,720	5,150	2,920	2,380	1,080	528	475	1,170	320
29	1,270	6,220	20,400	7,300	-------	2,680	2,120	1,120	580	668	1,420	458
30	1,520	4,620	18,000	5,900	-------	2,500	1,820	1,080	632	650	1,820	328
31	1,220	-------	14,100	4,940	-------	2,380	-------	1,000	-------	562	2,380	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	26,300	217	3,480	0 811	0.94
November	18,000	1,220	4,900	1.14	1.27
December	29,600	1,570	11,500	2.70	3.11
January	12,600	3,540	7,300	1 70	1.96
February	13,600	4,380	8,180	1.90	1.97
March	7,460	2,380	3,920	.914	1.05
April	11,400	1,820	4,520	1.05	1.17
May	3,750	760	1,640	.382	.44
June	3,210	254	739	.172	.19
July	1,720	220	689	.161	.18
August	7,150	440	2,000	.466	.54
September	4,730	254	1,450	.338	.38
The year	29,600	217	4,180	.951	13.20

REEDY FORK NEAR GIBSONVILLE, N.C.

LOCATION.—Water-stage recorder a quarter of a mile below Huffine's mill, 1¼ miles above Buffalo Creek, and 6 miles northwest of Gibsonville, Guilford County.

DRAINAGE AREA.—133 square miles.

RECORDS AVAILABLE.—September 1928 to September 1933.

DISCHARGE.—Maximum during year, 2,750 second-feet Oct. 18 (gage height, 9.43 feet); minimum, 1.0 second-foot July 14 (gage height, 0.40 foot).

1928–33: Maximum, 4,090 second-feet Oct. 3, 1929 (gage height, 12.65 feet); minimum, 0.8 second-foot Aug. 27, 1932 (gage height, 0.35 foot).

REMARKS.—Records fair except those estimated Oct. 13–15, which are poor. Flow regulated at low stages by storage for Greensboro water supply, which is diverted at confluence of Horsepen Creek and Reedy Fork, 14 miles upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	155	181	349	136	189	47	34	32	15.8	18.8	18.4
2	17.1	170	192	269	71	138	44	74	26	11.6	13.8	19.0
3	27	187	154	220	58	60	45	115	21	10.6	97	14.0
4	22	179	64	220	61	51	43	45	20	13.0	160	19.5
5	32	174	47	234	74	47	39	38	20	12.8	201	114
6	76	177	42	216	60	46	48	99	21	18.9	160	153
7	89	158	36	209	135	53	120	113	21	18.3	144	110
8	64	132	38	200	279	68	185	73	20	14.6	152	37
9	52	220	31	288	253	104	179	86	18.6	8.0	106	28
10	52	229	38	295	225	172	77	168	18.2	20	32	21
11	45	117	61	266	234	185	41	96	23	13.0	24	18.4
12	45	108	136	349	194	126	212	60	22	18.6	17.3	17.8
13	50	172	203	295	117	56	168	111	19.4	19.2	33	21
14	50	96	312	236	115	47	174	164	17.8	8.4	52	22
15	50	86	292	234	211	59	194	62	16.6	12.1	31	15.6
16	53	134	317	138	253	53	164	34	16.6	3.2	50	17.1
17	1,200	60	243	160	312	43	99	30	15.0	19.8	159	14.2
18	2,200	45	196	211	274	42	117	28	14.6	14.7	683	19.1
19	980	98	166	205	225	45	192	26	13.0	13.6	530	16.8
20	368	142	172	154	214	106	196	26	14.6	15.6	314	11.0
21	209	108	218	196	266	239	148	51	14.2	11.1	200	15.4
22	185	89	239	148	298	271	78	49	11.6	12.2	170	14.0
23	174	117	284	69	234	261	101	62	13.8	4.0	113	11.8
24	86	172	358	57	225	220	74	78	22	19.8	38	6.2
25	47	150	583	71	196	177	99	29	12.0	14.8	22	15.0
26	38	194	813	117	183	181	138	22	15.8	16.0	20	15.0
27	74	194	810	156	89	76	84	20	22	19.3	19.0	17.0
28	53	106	658	218	117	110	41	15.0	18.2	34	21	12.4
29	37	103	658	205	-------	181	36	20	18.2	19.5	24	14.4
30	29	132	546	94	-------	96	34	168	15.8	17.8	20	11.6
31	31	-------	439	128	-------	50	-------	60	-------	19.6	21	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,200	17.1	209	1.57	1.81
November	229	45	140	1.05	1.17
December	813	31	275	2.07	2.39
January	349	57	200	1.50	1.73
February	312	58	182	1.37	1.43
March	271	42	115	.865	1.00
April	212	34	107	.805	.90
May	168	15	66.3	.498	.57
June	32	11.6	18.5	.139	.16
July	34	3.2	15.2	.114	.13
August	683	13.8	118	.887	1.02
September	153	6.2	28.0	.211	.24
The year	2,200	3.2	123	.925	12.55

BUFFALO CREEK NEAR GREENSBORO, N.C.

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

DRAINAGE AREA.—32.8 square miles.

RECORDS AVAILABLE.—August 1928 to September 1933.

DISCHARGE.—Maximum during year, 1,590 second-feet Oct. 17 (gage height, 8.15 feet); minimum, 1.3 second-feet July 27.

1928–33: Maximum, 1,540 second-feet Feb. 28, 1929 (gage height, 8.74 feet); minimum, 0.2 second-foot Oct. 2, 1930.

REMARKS.—Records fair above 10 second-feet; poor below and for estimated periods, Nov. 15–19, June 14 to July 25, Aug. 1–31, Sept. 1–22, 29, 30. Sewage from Greensboro enters just above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	107	22	67	22	24	16.9	10.6	5.0	4	7	5
2	4.6	85	18.6	39	26	21	16.4	10.2	3.8	3	25	4
3	4.3	24	16.9	34	22	20	16.1	12.3	3.9	4	15	4
4	5.0	16.1	15.8	31	32	19.5	16.4	10.2	3.9	4	10	6
5	5.0	13.9	15.6	28	42	18.3	14.6	11.8	3.7	3	7	12
6	654	40	15.1	26	23	18.3	24	43	3.5	4	5	9
7	19.8	141	14.4	22	29	34	31	16.6	7.4	4	5	6
8	6.7	67	14.2	22	137	40	18.9	13.9	4.3	4	4	5
9	4.8	73	12.6	163	53	24	15.3	11.0	3.7	3	4	4
10	4.6	127	16.6	249	28	20	14.8	10.4	3.2	3	4	4
11	4.5	42	58	66	42	18.0	14.2	10.6	3.2	13	4	4
12	4.0	26	164	134	74	17.7	145	70	2.7	8	4	6
13	3.9	20	178	75	65	17.7	102	36	2.8	5	14	6
14	3.6	17.2	210	47	70	18.0	27	11.5	5	5	35	6
15	3.9	15	227	42	152	32	20	9.0	5	4	8	5
16	37	15	77	34	147	25	29	9.2	4	4	34	4
17	1,020	20	46	29	57	19.2	33	16.6	3	5	24	4
18	388	42	50	28	53	18.9	21	8.1	3	6	45	4
19	63	90	40	26	43	18.9	76	6.7	4	5	9	5
20	24	107	36	24	115	85	46	6.2	4	7	6	6
21	16.4	35	38	22	193	188	25	5.6	4	9	8	4
22	12.6	23	80	23	59	119	23	6.0	5	4	5	3
23	10.8	17.2	225	22	42	9.8	18.3	5.8	5	4	4	1.6
24	10.2	15.3	268	19.5	34	28	15.8	5.4	4	4	4	1.6
25	9.6	14.8	350	64	42	23	15.1	4.8	3	2	4	1.6
26	10.2	184	365	106	66	24	13.2	4.7	3	1.4	4	1.7
27	50	232	177	47	31	21	11.9	4.6	9	12.8	3	1.7
28	21	47	203	46	26	19.5	11.2	5.1	10	27	6	1.6
29	11.7	29	214	27	-------	18.0	10.4	4.8	5	3.0	15	1.5
30	10.6	24	104	24	-------	16.6	10.2	20	5	2.0	11	1.5
31	9.2	-------	78	22	-------	16.6	-------	21	-------	1.8	8	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,020	3.6	78.6	2.40	2.77
November	232	13.9	57.0	1.74	1.94
December	365	12.6	108	3.29	3.79
January	249	19.5	51.9	1.58	1.82
February	193	22	61.6	1.88	1.96
March	188	9.8	32.0	.976	1 13
April	145	10.2	28.4	.866	.97
May	70	4.6	13.6	.415	.48
June	10	2.7	4.40	.134	.15
July	27	1.4	5.54	.166	.19
August	45	3	11.0	.335	.39
September	12	1.5	4.29	.131	.15
The year	1,020	1.4	62.5	1.90	15.74

NORTH BUFFALO CREEK NEAR GREENSBORO, N.C.

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

DRAINAGE AREA.—36.4 square miles.

RECORDS AVAILABLE.—August 1928 to September 1933.

DISCHARGE.—Maximum during year, 1,650 second-feet Oct. 17 (gage height, 10.98 feet); minimum, 3.2 second-feet July 10 (gage height, 0.90 foot).

1928–33: Maximum, that of Oct. 17, 1932; minimum, 1.6 second-feet Aug. 28, 1932.

REMARKS.—Records good except those estimated, Nov. 15–20, which are fair. Sewage from Greensboro and Proximity Mills enters above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10.0	193	26	64	30	28	21	17.1	13.4	9.4	16.7	16.0
2	7.1	39	23	45	32	26	18.8	19.7	11.0	6.6	53	9.7
3	7.7	27	19.3	41	27	24	18.8	29	9.1	9.4	32	8.2
4	9.7	22	18.4	38	43	22	24	19.7	7.7	7.4	65	10.4
5	11.0	18.8	18.8	35	37	21	20	28	8.8	6.6	64	26
6	105	98	19.3	32	26	21	35	61	12.7	8.5	12.0	16.0
7	21	103	19.3	28	38	40	36	22	18.8	9.4	10.0	13.0
8	11.7	43	21	26	161	36	21	23	12.7	9.1	11.0	13.4
9	10.0	157	19.3	408	47	26	18.4	21	10.7	5.8	10.4	11.4
10	9.7	65	26	108	34	24	18.8	24	8.2	6.3	10.4	7.7
11	11.4	37	55	56	58	20	18.8	19.7	6.8	29	11.7	9.4
12	11.0	27	173	144	69	18.4	226	55	8.0	16.3	7.7	11.0
13	11.4	22	163	55	54	21	43	22	10.0	11.0	33	13.0
14	10.4	19.7	210	46	70	23	30	13.7	10.0	11.4	78	12.7
15	9.1	20	134	41	250	60	26	13.7	9.7	10.4	17.1	13.0
16	140	15	51	37	99	35	44	16.7	9.7	7.4	78	9.4
17	1,230	20	43	34	58	28	34	18.4	7.7	10.0	52	8.0
18	149	60	42	32	56	24	26	15.6	5.6	11.7	112	9.4
19	42	150	38	31	45	23	160	14.1	8.0	11.0	19.7	12.0
20	30	72	38	28	197	87	48	10.4	9.4	12.7	13.4	12.3
21	22	32	42	26	123	246	43	11.0	9.4	20	19.3	12.0
22	16.7	27	159	26	58	57	34	10.7	9.4	9.4	16.0	12.0
23	12.7	25	202	26	46	38	28	12.7	9.4	11.0	15.2	8.5
24	14.5	21	279	26	38	31	26	11.4	9.4	8.2	15.2	4.8
25	16.3	21	358	108	36	28	26	12.0	6.3	10.0	13.7	7.1
26	17.1	351	286	67	39	26	24	11.4	6.8	10.0	9.7	9.4
27	53	65	175	56	30	24	22	8.5	15.6	60	7.1	9.7
28	20	36	186	43	29	25	21	8.8	18.4	58	11.4	9.7
29	15.2	30	204	30	------	24	18.8	8.5	11.0	12.3	46	9.1
30	11.7	28	88	29	------	23	16.3	37	11.0	6.6	17.1	6.6
31	13.4	------	93	28	------	22	------	27	------	8.0	17.6	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,230	7.1	66.4	1.82	2.10
November	351	15	61.5	1.69	1.89
December	358	18.4	104	2.86	3.30
January	408	26	57.9	1.59	1.83
February	250	26	65.4	1.80	1.87
March	246	18.4	37.1	1.02	1.18
April	226	16.3	38.2	1.05	1.17
May	61	8.5	20.1	.552	.64
June	18.8	5.6	10.2	.280	.31
July	60	5.8	13.6	.374	.43
August	112	7.1	28.9	.734	.92
September	26	4.8	11.0	.302	.34
The year	1,230	4.8	42.8	1.17	15.98

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

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

DRAINAGE AREA.—33 square miles.

RECORDS AVAILABLE.—June 1923 to September 1926; July 1928 to September 1933.

DISCHARGE.—Maximum during year, 1,740 second-feet Oct. 17 (gage height, 12.46 feet); minimum, 1.8 second-feet Oct. 4 (gage height, 1.82 feet).

1923–26, 1928–33: Maximum, that of Oct. 17, 1932; minimum, 0.3 second-foot Sept. 1, 1932.

REMARKS.—Records good except those estimated, Nov. 2–19 and July 20–27, which are poor. Flow slightly regulated by gristmill 4 miles above.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	92	12.1	59	21	22	18.1	14.8	10.8	7.3	4.6	8.7
2	2.8	30	11.1	38	22	20	17.0	14.4	11.4	6.2	82	8.1
3	3.1	11	10.8	32	20	19.6	16.6	15.8	11.7	7.0	32	8.1
4	2.5	10	10.8	30	31	19.2	16.2	14.1	11.4	6.0	17.1	8.1
5	9.4	9	10.1	27	24	18.5	15.2	30	10.5	5.6	12.1	12.7
6	35	35	9.5	24	18.5	18.1	19.6	31	9.5	5.6	6.2	8.1
7	6.2	45	9.2	22	49	33	20	16.6	10.1	4.9	5.3	7.8
8	4.9	20	8.7	22	114	30	15.8	16.2	8.9	4.4	4.9	7.8
9	4.2	80	7.8	268	37	23	14.8	13.8	8.4	3.7	4.2	7.8
10	4.2	45	14.1	70	27	21	14.4	15.2	7.3	3.7	6.7	6.7
11	4.0	20	37	44	40	20	14.4	13.8	13.0	30	4.2	6.0
12	3.7	18	122	116	43	19.6	235	42	11.7	13.3	3.7	6.5
13	3.3	17	117	45	38	20	42	17.7	9.2	7.5	215	8.9
14	3.9	16	166	36	50	21	28	13.8	8.1	7.3	243	7.8
15	3.3	15	85	30	146	28	23	14.4	8.1	6.7	22	6.5
16	95	15	39	27	62	18.9	39	24	8.7	8.1	229	5.8
17	1,120	15	74	25	42	18.5	28	21	8.1	7.3	120	5.6
18	76	20	67	24	43	18.1	21	12.4	6.7	7.3	131	5.3
19	43	70	41	23	33	18.9	94	11.1	6.7	6.2	26	4.9
20	26	25	30	22	174	35	36	10.5	5.8	6	18.1	5.1
21	19.2	17.0	21	20	77	276	26	10.5	5.3	6	15.5	4.9
22	15.8	14.1	66	20	43	50	23	10.5	4.6	6	12.4	4.2
23	13.8	12.7	107	19.2	34	34	20	9.5	4.6	6	11.7	3.9
24	12.7	12.7	229	18.1	28	26	19.2	9.5	6.2	6	10.1	3.7
25	11.7	12.7	366	53	44	24	18.5	8.7	6.5	6	8.9	3.5
26	11.7	166	265	34	37	22	17.3	8.1	12.1	6	8.9	3.3
27	22	35	173	38	26	20	15.8	9.8	8.9	60	8.1	3.0
28	11.7	21	180	28	23	19.2	15.5	11.1	8.4	8.9	32	2.8
29	10.1	16.2	133	22	-------	18.1	15.2	10.8	14.9	6.0	36	2.6
30	9.5	14.1	68	22	-------	17.7	14.8	12.7	8.1	4.4	10.1	2.5
31	9.5	-------	87	22	-------	17.7	-------	14.4	-------	3.7	9.5	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,120	2.5	51.6	1.56	1.80
November	166	9	31.0	.939	1.05
December	366	7.8	83.1	2.52	2.90
January	268	18.1	41.3	1.25	1.44
February	174	18.5	48.1	1.46	1.52
March	276	17.7	31.2	.945	1.09
April	235	14.4	30.4	.921	1.03
May	42	8.1	15.4	.467	.54
June	14.9	4.6	8.86	.268	.30
July	60	3.7	8.81	.267	.31
August	243	3.7	43.6	1.32	1.52
September	12.7	2.5	6.02	.182	.20
The year	1,120	2.5	33.3	1.01	13.70

DEEP RIVER NEAR RANDLEMAN, N.C.

LOCATION.—Water-stage recorder 500 feet below county bridge at Coltrane's mill, half a mile south of Guilford County line, and 7 miles north of Randleman, Randolph County. Zero of gage is 638.11 feet above mean sea level.

DRAINAGE AREA.—124 square miles.

RECORDS AVAILABLE.—October 1928 to September 1933.

DISCHARGE.—Maximum during year (estimated), 4,700 second-feet Oct. 17; minimum, 1.7 second-feet Aug. 26, Sept. 24 (gage height, 1.47 feet).

1928–33: Maximum, 5,790 second-feet Feb. 28, 1929 (gage height, 23.9 feet); minimum, 0.5 second-foot Nov. 28, 1931 (gage height, 1.41 feet).

REMARKS.—Records good except those estimated Oct. 17 to Nov. 19, Feb. 9 to Mar. 16, which are poor. Flow regulated by Coltrane's mill and by storage in High Point Reservoir.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29		95	339	57		49	65	37	14.8	16.2	27
2	5.6		74	262	83		35	51	30	4.5	102	22
3	15.3	125	67	87	134	96	54	42	26	9.1	358	11.6
4	11.7		78	73	70		106	68	16.8	9.8	74	8.2
5	4.8		100	66	76		104	73	11.6	40	60	12.4
6	126		68	71	71		62	70	32	28	65	18.9
7	69		41	59	99		55	70	27	25	88	8.5
8	19.4	230	27	48	432	100	43	83	13.7	9.8	34	3.8
9	6.6		28	813			9.8	59	18.2	6.1	8.4	7.5
10	17.9		31	438			37	32	30	7.4	8.2	5.2
11	11.1		80	208			29	27	25	13.4	4.5	2.8
12	7.2		537	482			573	45	7.7	21	13.8	5.9
13	7.5	100	676	239			306	82	10.8	13.9	63	42
14	11.6		821	168		110	205	45	16.8	5.6	854	55
15	8.6		652	147	240		67	60	7.8	7.3	92	53
16	67		255	136			66	29	10.5	5.6	472	49
17	4,700	85	200	112		44	76	58	16.2	14.9	179	13.2
18			195	107		55	71	45	26	8.0	428	14.2
19	700		174	97		49	138	31	4.5	10.4	80	14.4
20		88	163	90		148	161	27	4.8	12.4	50	10.6
21		111	81	150		842	91	15.8	13.6	85	64	14.8
22		108	225	147		266	71	43	15.4	48	47	13.9
23		94	489	145		168	73	26	20	5.6	23	5.2
24		98	1,050	55		67	86	15.4	15.2	38	27	4.0
25		84	1,590	132	145	87	77	16.8	5.8	13.4	21	7.8
26	48	684	1,280	109		92	38	27	9.4	10.0	6.8	7.4
27		276	692	120		111	59	29	11.8	8.2	6.1	2.7
28		156	740	139		128	50	26	10.2	93	13.7	5.8
29		117	734	96		124	37	6.8	13.6	33	141	2.4
30		105	423	110		116	29	41	12.6	7.7	99	2.5
31			399	115		114		54		34	84	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,700	4.8	250	2.02	2.33
November	684	84	151	1.22	1.36
December	1,590	27	389	3.14	3.62
January	813	48	173	1.40	1.61
February	432	57	184	1.48	1.54
March	842	44	131	1.06	1.22
April	573	9.8	95.3	.769	.86
May	83	6.8	44.0	.355	.41
June	37	4.5	16.7	.135	.15
July	93	4.5	20.7	.167	.19
August	854	4.5	116	.935	1.08
September	55	2.4	15.1	.122	.14
The year	4,700	2.4	132	1.06	14.51

DEEP RIVER AT RAMSEUR, N.C.

LOCATION.—Water-stage recorder 2,000 feet below railroad station at Ramseur, Randolph County, and 1½ miles below mouth of Sandy Creek.
DRAINAGE AREA.—343 square miles.
RECORDS AVAILABLE.—November 1922 to September 1933.
DISCHARGE.—Maximum during year, 11,700 second-feet Oct. 17 (gage height, 16.20 feet); minimum, 11 second-feet June 17, 21 (gage height 0.38 foot).
1922–33: Maximum (estimated), 21,100 second-feet Sept. 19, 1928 (gage height, 25.44 feet); minimum, 6 second-feet several times in October and November 1931. Average, 10 years (1923–33), 342 second-feet.
REMARKS.—Records good except those below 150 second-feet and those estimated Nov. 2, 3, which are fair. Marked regulation, owing to operation of power plants. Considerable storage at High Point Reservoir.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	609	236	678	253	377	205	136	63	40	33	109
2	32	460	211	552	213	374	154	138	78	32	55	51
3	42	328	147	355	318	241	187	146	56	55	380	48
4	34	168	170	267	255	177	174	129	42	25	182	78
5	30	142	192	252	340	178	223	154	68	47	82	60
6	34	328	186	218	243	178	314	188	45	26	55	97
7	54	1,220	147	208	220	227	813	162	72	59	106	48
8	78	316	117	187	1,020	343	272	190	52	26	84	58
9	39	462	106	1,450	645	251	195	164	54	28	91	21
10	59	678	78	1,370	400	321	192	135	39	56	53	25
11	62	359	479	588	514	202	159	118	34	123	56	53
12	45	249	1,930	887	730	164	1,360	120	61	182	31	33
13	42	217	2,530	673	598	172	878	93	62	81	41	27
14	36	218	3,000	481	577	176	528	87	97	68	819	25
15	26	197	2,280	446	1,340	896	271	109	76	21	262	22
16	86	174	815	375	1,200	675	273	115	64	21	347	20
17	9,600	130	566	323	673	279	356	106	37	51	485	19
18	3,910	101	499	299	553	221	240	97	21	26	436	23
19	570	362	422	284	490	238	253	87	47	32	191	51
20	329	481	386	258	874	900	362	65	40	34	95	46
21	202	268	328	285	1,240	1,540	258	51	19	32	168	45
22	90	242	555	308	619	861	196	87	30	20	112	37
23	72	213	1,360	304	546	480	195	102	27	23	87	22
24	122	175	2,280	254	344	354	212	72	21	42	140	20
25	119	184	3,520	269	279	241	202	77	18	48	144	25
26	101	2,600	3,700	558	719	270	171	72	21	52	74	27
27	148	1,120	1,540	302	422	268	137	41	28	61	128	26
28	184	450	1,550	381	315	282	138	35	31	46	81	26
29	177	312	1,500	273	------	270	125	71	67	20	208	21
30	45	268	937	248	------	257	102	53	73	21	217	20
31	74	------	774	264	------	252	------	76	------	41	153	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,600	26	532	1.55	1.79
November	2,600	101	434	1.27	1.42
December	3,700	78	1,050	3.06	3.53
January	1,450	187	439	1.28	1.48
February	1,340	213	569	1.66	1.73
March	1,540	164	376	1.10	1.27
April	1,360	102	305	.889	.99
May	190	35	106	.309	.36
June	97	18	48.1	.140	.16
July	182	20	46.4	.135	.16
August	819	31	174	.507	.58
September	109	19	39.4	.115	.13
The year	9,600	18	343	1.00	13.60

DEEP RIVER AT MONCURE, N.C.

LOCATION.—Water-stage recorder 1½ miles northwest of Moncure, Chatham County. Zero of gage is 185.88 feet above mean sea level.

DRAINAGE AREA.—1,340 square miles.

RECORDS AVAILABLE.—May 1898 to December 1899, July 1930 to September 1933.

DISCHARGE.—Maximum during year, 18,800 second-feet Oct. 17 (gage height, 8.31 feet); minimum, 28 second-feet Sept. 26 (gage height, 0.66 foot).

1898–99, 1930–33: Maximum, 24,600 second-feet Feb. 8, 1899; minimum, 20 second-feet Nov. 24, 1931 (gage height, 0.56 foot).

REMARKS.—Records excellent except those estimated Oct. 25–28, Feb. 13–22, May 8–16, July 23 to Sept. 17, which are fair. Flow regulated by power plants upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	550	750	2,460	1,050	1,150	685	475	218	547		
2	64	1,290	676	1,950	1,190	1,060	676	415	182	116		
3	60	1,390	589	1,660	1,320	1,050	649	491	195	73		
4	161	740	491	1,410	1,250	951	580	598	96	66	400	250
5	138	452	507	1,180	2,060	810	589	598	54	58		
6	492	437	491	1,110	1,790	770	1,050	547	119	44		
7	1,130	9,630	475	984	1,290	780	4,680	962	240	110	1,400	1,100
8	676	7,860	475	863	2,450	1,220	3,670	800	224	116		
9	161	2,460	408	2,190	3,690	1,450	1,560	650	177	64	510	
10	305	2,210	422	6,720	2,210	1,050	1,020	550	182	43		
11	99	1,860	771	3,660	2,900	863	830	480	142	94		380
12	54	1,210	11,100	2,060	6,400	852	1,920	460	73	224		
13	224	863	12,600	1,980	3,500	740	4,180	480	384	138		
14	77	800	12,900	2,060	3,000	712	2,210	500	292	280		
15	96	623	13,700	3,220	3,500	1,960	1,420	480	168	262	220	
16	77	598	8,720	4,690	4,200	2,640	1,660	400	153	157		
17	12,200	555	3,030	3,140	2,600	1,760	2,460	298	73	89		60
18	15,300	572	2,210	2,290	2,300	1,120	1,630	262	94	186		40
19	15,400	995	1,770	1,760	2,200	1,180	1,270	245	64	164		75
20	4,570	1,460	1,580	1,470	2,600	1,650	1,250	245	131	153		94
21	995	1,580	1,820	1,280	3,600	3,030	1,220	200	146	195	700	82
22	667	940	2,560	1,180	2,500	3,030	1,120	240	150	157		55
23	483	721	6,090	1,170	2,210	2,130	1,060	292	75			36
24	438	623	6,400	1,100	1,800	1,360	885	195	56			30
25	650	507	6,560	2,620	1,540	1,100	760	204	49	220		29
26	400	747	11,300	7,560	1,460	885	721	177	44		200	28
27	200	4,050	11,800	3,580	1,630	852	649	190	58			44
28	190	2,660	9,580	2,060	1,420	810	564	305	131			116
29	400	1,300	6,880	1,610	------	770	491	104	150	110		164
30	415	896	5,220	1,320	------	760	468	177	176		1,100	125
31	365	------	3,350	1,130	------	721	------	182	------		520	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	15,400	54	1,820	1.33	1.57
November	9,630	437	1,690	1.23	1.41
December	13,700	408	4,680	3.49	4.02
January	7,560	863	2,310	1.72	1.98
February	6,400	1,050	2,420	1.81	1.88
March	3,030	712	1,270	.948	1.09
April	4,680	468	1,400	1.04	1.16
May	962	104	394	.294	.34
June	384	44	143	.177	.12
July	547	43	154	.115	.13
August	1,400	----------	433	.323	.37
September	1,100	28	212	.158	.18
The year	15,400	28	1,410	1.05	14.25

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

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

DRAINAGE AREA.—13.9 square miles.

RECORDS AVAILABLE.—July 1928 to September 1933.

DISCHARGE.—Maximum during year, 1,160 second-feet Oct. 17 (gage height, 5.85 feet); minimum, estimated, 2 second-feet Oct. 1–4.

1928–33: Maximum, that of Oct. 17, 1932; minimum, 1.3 second-feet Dec. 17, 1930 (gage height, 0.13 foot).

REMARKS.—Records fair except those estimated Oct. 1–9, Jan. 1–19, July 19–26, which are poor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	63	7.3	40	9.8	9.8	8.1	6.1	4.4	3.5	3.4	5.2
2	2	9.8	6.7	25	10.2	9.0	7.8	5.7	4.2	3.2	95	4.6
3	2	6.4	6.4	20	8.7	8.7	7.8	6.1	4.1	3.2	18.5	4.2
4	2	5.9	6.4	18	18.0	8.7	7.6	5.5	4.0	3.2	8.9	6.1
5	20	5.5	6.1	17	13.5	8.1	7.3	17.7	4.4	3.1	11.2	6.6
6	4	26	5.9	17	9.4	8.1	8.4	13.0	5.7	3.1	4.4	4.6
7	3	30	5.9	16	48	14.5	9.0	6.7	5.7	3.0	4.1	4.4
8	3	11.8	5.7	16	65	10.6	7.3	6.4	5.5	2.9	3.8	4.4
9	3	52	5.5	110	18.0	8.4	7.0	5.7	5.3	2.9	3.7	4.2
10	3.0	20	9.6	35	14.0	7.8	6.7	6.1	5.3	2.9	6.1	4.1
11	3.0	11.0	26	30	30	7.6	6.7	5.3	4.8	29	3.7	4.2
12	3.0	8.1	88	60	29	7.6	112	27	3.7	4.0	3.6	3.8
13	3.1	6.7	78	30	24	7.3	15.5	7.0	3.7	3.4	162	4.2
14	3.1	6.1	108	25	37	7.6	11.4	5.5	3.6	3.4	32	4.2
15	3.1	5.7	45	20	140	28	9.4	5.3	3.6	3.4	6.1	4.1
16	72	5.5	20	13	38	10.2	22	8.0	3.5	3.4	128	4.1
17	509	5.5	15.5	11	24	9.4	14.0	6.1	3.5	3.6	94	3.8
18	33	5.5	18.0	10	29	8.7	9.8	5.2	3.4	3.6	48	3.7
19	12.6	42	14.0	10	19.4	9.0	82	4.8	3.4	3	10.2	3.6
20	7.8	12.6	13.0	9.8	145	24	17.5	4.8	3.2	3	6.4	3.7
21	5.9	8.7	13.0	10.2	41	156	12.6	4.6	3.2	3	5.9	3.7
22	5.3	7.3	53	9.8	23	24	11.0	4.4	3.2	3	5.3	3.6
23	5.0	6.7	79	9.4	18.0	15.5	9.4	4.4	3.2	3	5.2	3.5
24	4.8	6.1	157	8.7	14.5	12.2	8.7	4.2	3.5	3	5.0	3.4
25	4.6	6.4	224	38	15.0	11.4	7.8	4.2	3.4	4	4.2	3.2
26	4.4	103	96	18.0	13.0	11.0	7.6	4.1	3.7	4	4.1	3.2
27	8.9	18.0	108	22	11.0	9.8	6.7	5.6	3.7	43	4.1	3.1
28	4.8	11.0	104	14.5	10.2	9.0	6.7	4.6	3.5	5.7	45	3.1
29	4.4	9.0	85	11.4	-------	8.4	6.4	4.2	26	4.1	15.4	3.0
30	4.2	8.1	37	10.2	-------	8.4	6.1	8.0	3.8	3.7	5.7	3.1
31	4.4	-------	58	9.4	-------	8.1	-------	5.3	-------	3.5	5.3	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	509	2	24.2	1.74	2.01
November	103	5.5	17.4	1.25	1.40
December	224	5.5	48.6	3.50	4.04
January	110	8.7	22.4	1.61	1.86
February	145	8.7	31.3	2.25	2.34
March	156	7.3	15.7	1.13	1.30
April	112	6.1	15.3	1.10	1.23
May	27	4.1	6.83	.491	.57
June	26	3.2	4.74	.341	.38
July	43	2.9	5.51	.396	.46
August	162	3.4	24.5	1.76	2.02
September	6.6	3.0	4.02	.289	.32
The year	509	2	18.4	1.32	17.93

LOWER LITTLE RIVER AT LINDEN, N.C.

LOCATION.—Chain gage at State highway bridge 1 mile west of Linden, Cumberland County, three-quarters of a mile above Stewart Creek, and 3¼ miles above mouth. Zero of gage is 71.37 feet above mean sea level.

DRAINAGE AREA.—450 square miles.

RECORDS AVAILABLE.—November 1928 to September 1933.

DISCHARGE.—Maximum during year, 1,760 second-feet Aug. 19 (gage height, 7.15 feet); minimum, 34 second-feet June 18 (gage height, 2.15 feet).

1928–33: Maximum, 10,300 second-feet Oct. 2, 1929; maximum gage height, 35.5 feet Oct. 4, 1929; minimum discharge, 33 second-feet Sept. 14, 1932.

Maximum stage known, 37.3 feet Sept. 21, 1928 (estimated discharge, 13,000 second-feet).

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	159	300	1,250	755	716	244	218	272	52	193	394
2	101	181	272	999	716	638	300	218	149	52	300	330
3	56	181	286	834	755	599	286	218	120	93	394	315
4	48	159	300	755	794	599	272	346	72	98	502	258
5	100	139	286	677	875	599	286	330	70	60	957	231
6	98	272	300	599	755	638	286	560	108	49	957	1,210
7	130	599	315	560	677	957	378	834	81	47	482	1,500
8	101	999	258	638	957	999	521	834	59	40	300	1,250
9	130	1,120	272	638	834	957	483	502	53	42	193	834
10	93	716	258	677	794	755	378	362	54	40	120	521
11	70	560	411	794	1,210	716	315	464	54	60	120	346
12	81	411	834	834	1,500	677	378	330	83	288	300	300
13	77	330	346	794	1,500	599	362	258	130	205	286	272
14	73	300	1,250	755	1,420	483	362	218	108	139	346	258
15	66	286	1,670	834	1,170	599	362	231	69	70	346	428
16	60	258	1,590	916	1,080	638	677	181	66	87	394	362
17	362	244	1,420	1,040	957	599	1,040	120	52	81	834	258
18	716	231	1,080	1,080	999	755	999	120	38	159	1,500	205
19	755	428	999	957	1,250	599	599	95	52	315	1,670	193
20	464	638	638	755	1,250	638	411	87	66	595	1,290	139
21	378	677	875	677	1,340	716	502	73	45	884	957	130
22	300	560	1,040	599	1,210	638	483	130	58	521	599	120
23	115	362	1,040	599	1,040	599	483	84	52	258	599	90
24	149	346	1,170	502	916	502	362	92	53	205	428	56
25	120	330	1,170	599	794	483	362	74	43	108	394	100
26	103	346	1,080	1,160	794	428	346	61	42	95	362	100
27	159	464	1,080	1,250	755	362	362	63	42	118	428	77
28	106	378	1,170	794	716	362	346	159	40	108	464	72
29	149	315	1,250	1,120	------	346	272	181	39	72	560	73
30	170	315	1,380	755	------	315	218	181	38	193	834	87
31	159	------	1,380	677	------	315	------	244	------	181	560	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	755	48	181	0.402	0.46
November	1,120	139	410	.911	1.02
December	1,670	258	830	1.84	2.12
January	1,250	502	810	1.80	2.08
February	1,500	677	993	2.21	2.30
March	999	315	607	1.35	1.56
April	1,040	218	422	.938	1.05
May	834	61	254	.564	.65
June	272	38	73.6	.164	.18
July	834	37	168	.373	.43
August	1,670	120	570	1.27	1.46
September	1,500	56	350	.778	.87
The year	1,670	37	470	1.04	14.18

PEE DEE RIVER BASIN

YADKIN RIVER AT WILKESBORO, N.C.

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

DRAINAGE AREA.—480 square miles.

RECORDS AVAILABLE.—October 1928 to September 1933. April 1903 to June 1909; October 1920 to September 1928 at North Wilkesboro, 1 mile below.

DISCHARGE.—Maximum during year, 19,200 second-feet Oct. 17 (gage height, 20.94 feet); minimum, 219 second-feet Oct. 4 (gage height, 1.69 feet).

1903–9, 1920–33: Maximum, about 23,000 second-feet (revised) Oct. 2, 1929; minimum, 152 second-feet Sept. 19, 1932 (gage height, 1.50 feet). Average, 13 years (1920–33), 748 second-feet.

Maximum stage recorded, 34.5 feet July 1916.

REMARKS.—Records fair. Low-water flow regulated by operation of power plant on Reddies River 1 mile upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	303	4,510	677	1,800	739	771	892	822	683	647	460	466
2	278	1,520	659	1,450	746	752	860	834	647	569	406	395
3	265	1,020	634	1,280	714	739	815	1,070	634	569	477	438
4	265	847	575	1,180	733	714	802	834	616	690	472	433
5	428	771	575	1,090	758	708	771	1,630	580	551	411	784
6	1,380	708	575	1,020	690	708	999	2,030	598	528	327	622
7	593	752	580	925	887	1,240	1,150	1,150	598	511	298	483
8	422	683	580	892	2,180	1,600	958	990	545	494	283	438
9	368	2,330	563	1,250	1,320	1,120	892	892	586	455	274	449
10	342	2,180	647	1,120	1,060	958	860	925	616	455	255	400
11	337	1,280	727	990	1,020	892	834	892	586	472	265	368
12	317	990	892	990	925	841	1,210	3,120	701	534	260	368
13	308	834	1,020	892	854	822	990	5,940	727	477	265	389
14	303	764	1,150	860	892	815	892	1,710	696	427	327	438
15	298	708	1,150	822	1,350	892	892	1,320	677	494	255	664
16	1,470	671	925	796	1,250	815	2,760	1,120	647	522	332	444
17	15,300	665	892	777	1,120	783	2,630	1,060	628	433	342	384
18	3,300	622	892	764	1,020	834	1,730	958	610	460	1,250	363
19	1,590	1,390	746	758	958	1,120	1,700	892	592	406	505	348
20	1,090	1,480	727	746	1,250	1,350	1,520	860	580	455	620	332
21	892	990	696	714	1,250	1,350	1,320	841	604	778	416	322
22	777	847	752	714	1,090	1,150	1,180	841	545	522	368	312
23	702	752	1,120	702	1,020	1,020	1,090	815	545	368	337	317
24	640	696	1,480	683	925	925	990	841	892	348	322	298
25	622	665	2,500	991	892	925	990	860	665	337	293	298
26	628	1,210	2,620	1,190	841	860	925	802	677	332	288	298
27	1,400	1,060	2,030	958	802	841	892	764	790	449	308	283
28	796	834	3,760	925	777	828	860	771	604	1,270	283	278
29	665	752	3,080	822	------	802	841	727	665	580	317	283
30	610	714	1,940	783	------	783	822	1,060	742	517	547	278
31	770	------	2,050	758	------	796	------	891	------	477	545	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	15,300	265	1,210	2.52	2.90
November	4,510	622	1,110	2.31	2.58
December	3,760	563	1,200	2.50	2.88
January	1,800	683	956	1.99	2.29
February	2,180	690	1,000	2.08	2.17
March	1,600	708	928	1.93	2.22
April	2,760	771	1,140	2.38	2.66
May	5,940	727	1,230	2.56	2.95
June	892	545	643	1.34	1.50
July	1,270	332	520	1.08	1.24
August	1,250	255	391	.815	.94
September	784	278	399	.831	.93
The year	15,300	255	894	1.86	25.26

YADKIN RIVER AT YADKIN COLLEGE, N.C.

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

DRAINAGE AREA.—2,250 square miles.

RECORDS AVAILABLE.—July 1928 to September 1933.

DISCHARGE.—Maximum during year, 52,200 second-feet Oct. 18 (gage height, 25.96 feet); minimum, 719 second-feet Sept. 26 (gage height, 0.48 foot).

1928–33: Maximum, 67,800 second-feet Oct. 3, 1929 (gage height, 29.8 feet); minimum, 395 second-feet Sept. 20, 1932 (gage height, 0.05 foot).

REMARKS.—Records good. Slight regulation caused by operation of small power plant about 10 miles upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,380	14,400	2,730	8,630	2,930	2,930	2,730	2,630	2,830	1,580	1,650	1,480
2	1,200	26,900	2,630	6,020	2,930	2,830	2,830	2,730	2,130	1,680	2,030	1,480
3	1,050	6,590	2,530	4,930	2,830	2,830	2,930	3,380	1,930	1,430	2,430	1,340
4	1,030	4,270	2,430	4,490	2,830	2,730	2,730	3,820	1,880	1,380	2,380	1,250
5	1,020	3,530	2,380	4,050	2,930	2,730	2,630	3,100	1,880	1,340	2,180	1,900
6	5,920	3,230	2,330	3,830	2,830	2,630	2,730	9,000	1,830	1,300	1,880	2,230
7	6,040	3,430	2,280	3,530	2,730	2,830	3,430	6,000	2,030	1,160	1,480	1,930
8	2,700	3,430	2,230	3,430	6,380	3,780	3,530	3,940	1,830	1,160	1,300	1,630
9	1,880	4,420	2,180	4,140	6,950	4,600	3,030	3,430	1,680	1,120	1,200	1,430
10	1,530	13,600	2,180	5,480	4,380	3,530	2,830	3,230	1,630	1,040	1,200	1,380
11	1,430	9,220	2,630	4,380	3,730	3,130	2,730	3,230	1,630	1,120	1,120	1,250
12	1,340	4,710	3,780	4,270	3,940	2,930	4,120	3,380	1,980	1,430	1,120	1,120
13	1,250	3,730	4,600	3,940	3,530	2,930	4,450	4,920	1,930	1,300	1,230	2,790
14	1,200	3,330	4,820	3,530	3,430	2,930	3,330	7,820	2,080	1,200	2,200	2,560
15	1,160	3,030	5,840	3,330	4,880	2,930	3,030	3,950	1,630	1,120	1,530	1,680
16	1,460	2,830	4,580	3,230	6,900	3,330	3,030	3,330	1,480	1,070	2,950	1,680
17	20,900	2,730	3,630	3,130	4,930	3,030	5,390	3,230	1,480	1,250	2,790	1,480
18	48,800	2,630	3,230	3,030	4,160	2,830	5,650	2,830	1,430	1,200	2,630	1,200
19	32,500	6,260	3,830	3,030	3,830	2,930	4,710	2,630	1,380	1,160	3,530	1,070
20	6,170	9,240	3,130	3,030	4,240	5,120	4,930	2,530	1,340	1,300	2,530	1,020
21	4,160	5,130	2,830	2,930	5,980	7,130	4,160	2,430	1,300	2,260	1,830	962
22	3,330	3,830	2,930	2,830	4,750	5,130	3,730	2,430	1,250	1,580	1,630	908
23	2,930	3,230	4,000	2,830	4,050	4,050	3,530	2,380	1,200	1,480	1,430	881
24	2,930	2,930	6,140	2,830	3,730	3,630	3,330	2,280	1,630	1,250	1,380	863
25	3,030	2,830	9,250	2,830	3,530	3,330	3,230	2,280	1,740	1,070	1,250	854
26	2,630	4,090	15,100	3,950	3,430	3,230	3,030	2,230	1,630	1,030	1,200	809
27	4,260	5,320	9,940	4,270	3,230	3,130	2,930	2,130	1,530	1,040	1,070	818
28	5,580	3,920	12,300	3,730	3,030	3,030	2,830	2,130	1,730	1,230	1,050	818
29	3,260	3,230	15,900	3,330	-------	2,830	2,830	2,030	1,780	3,240	1,340	800
30	2,630	2,930	9,670	3,030	-------	2,830	2,730	2,390	1,730	3,140	1,250	782
31	2,380	-------	5,440	3,030	-------	2,730	-------	2,930	-------	2,030	1,200	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	48,800	1,020	5,710	2.54	2.93
November	26,900	2,630	5,630	2.50	2.79
December	15,900	2,180	5,080	2.26	2.61
January	8,630	2,830	3,840	1.71	1.97
February	6,950	2,730	4,040	1.80	1.87
March	7,130	2,630	3,370	1.50	1.73
April	5,650	2,030	3,440	1.53	1.71
May	9,000	2,030	3,380	1.50	1.73
June	2,830	1,200	1,720	.764	.85
July	3,240	1,030	1,460	.649	.75
August	3,530	1,050	1,740	.773	.89
September	2,790	782	1,350	.600	.67
The year	48,800	782	3,400	1.51	20.50

PEE DEE RIVER NEAR ROCKINGHAM, N.C.

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

DRAINAGE AREA.—6,910 square miles.

RECORDS AVAILABLE.—September 1927 to September 1933.

DISCHARGE.—Maximum during year, 69,700 second-feet Oct. 19 (gage height, 12.48 feet); minimum, 30 second-feet Oct. 9 (gage height, 0.60 foot).

1927–33: Maximum, 212,000 second-feet Sept. 19, 1928 (gage height, 25.38 feet, present datum); minimum, that of Oct. 9, 1932.

REMARKS.—Records excellent above 300 second-feet and fair below except those estimated, Mar. 21–25 and May 11–26, which are poor. Flow regulated by series of storage basins extending from a point near station to a point above forks of Yadkin River.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,920	7,920	9,200	18,700	8,580	8,550	5,890	3,370	5,240	3,000	2,990	4,430
2	468	25,200	6,640	17,500	8,700	8,490	1,710	7,190	2,860	3,530	3,090	3,680
3	2,000	35,800	8,260	13,000	8,440	7,880	4,510	7,300	819	2,290	4,270	1,100
4	1,730	20,000	1,510	11,300	7,460	4,580	7,120	6,000	52	2,010	6,280	1,060
5	3,800	11,200	4,350	9,880	2,840	1,670	8,770	4,380	1,510	2,970	6,350	3,740
6	5,840	6,880	6,860	9,350	7,730	6,620	8,620	8,420	3,500	1,880	4,430	6,680
7	4,000	11,300	8,770	8,560	8,660	7,750	6,800	10,200	2,760	3,270	2,390	6,280
8	3,870	12,600	7,420	5,510	8,650	7,270	8,190	13,400	3,770	3,600	4,760	4,920
9	40	10,200	8,070	13,700	18,000	7,020	3,510	10,300	4,180	1,680	4,560	2,360
10	1,260	11,700	6,870	26,800	17,300	7,100	7,560	9,730	2,720	4,170	2,590	424
11	2,630	22,600	3,690	18,600	14,500	6,870	8,450	8,600	2,350	3,430	3,760	1,780
12	3,240	16,000	9,550	12,000	18,500	3,340	8,270	4,200	2,910	3,700	1,840	3,320
13	3,090	7,200	30,800	12,500	16,600	7,840	13,200	3,800	7,170	2,860	1,280	4,850
14	2,530	8,070	40,000	11,600	13,200	8,690	11,700	3,400	4,500	3,720	2,810	4,400
15	3,680	9,440	45,100	9,920	12,000	7,420	9,800	6,700	3,550	2,700	6,730	4,940
16	2,850	7,920	31,100	12,900	11,200	9,080	5,440	12,500	2,530	1,800	6,460	5,800
17	31,100	7,920	18,200	10,800	10,200	8,580	6,720	8,680	2,410	2,610	9,710	83
18	60,800	7,920	14,600	9,620	11,700	7,930	9,040	7,180	1,250	3,780	8,400	2,080
19	61,500	7,920	14,400	9,260	13,700	1,790	11,200	6,710	3,300	3,250	6,830	1,670
20	54,700	5,910	10,900	7,210	15,300	6,610	9,690	6,130	2,580	4,280	6,490	3,870
21	16,800	16,600	12,000	6,560	4,520	15,300	10,700	3,610	2,540	2,880	6,580	3,820
22	8,260	11,400	12,300	1,760	9,000	48,700	8,500	2,940	4,120	2,960	3,040	3,240
23	3,560	9,970	17,500	8,320	12,800	43,400	4,690	3,460	5,630	3,030	3,410	3,420
24	6,160	9,050	27,700	8,920	10,600	19,100	6,290	3,080	2,870	2,440	3,150	1,150
25	7,220	2,740	32,900	9,370	6,520	9,700	7,180	4,470	2,440	3,680	2,100	2,200
26	5,120	6,620	47,300	14,100	9,160	6,920	7,720	6,940	2,710	3,030	1,810	4,740
27	6,620	19,900	49,400	13,800	11,300	8,830	8,100	6,150	5,010	4,320	508	3,690
28	7,670	16,700	41,200	11,900	9,400	8,830	7,270	2,500	4,030	3,940	3,140	4,160
29	7,670	11,000	41,000	8,340	-------	6,930	6,030	2,630	3,380	2,880	3,960	2,980
30	2,550	9,480	37,200	8,940	-------	5,490	3,730	3,350	4,270	448	2,710	2,740
31	5,000	-------	24,300	8,680	-------	6,080	-------	3,150	-------	1,230	4,180	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	61,500	40	10,600	1.53	1.76
November	35,800	2,740	12,200	1.77	1.98
December	49,400	1,510	20,300	2.94	3.39
January	26,800	1,760	11,300	1.64	1.89
February	18,500	2,840	10,900	1.58	1.64
March	48,700	1,670	10,100	1.46	1.68
April	13,200	1,710	7,550	1.09	1.22
May	13,400	2,500	6,140	.889	1.02
June	7,170	52	3,230	.467	.52
July	4,320	448	2,950	.427	.49
August	9,710	508	4,210	.609	.70
September	6,680	83	3,320	.480	.54
The year	61,500	40	8,570	1.24	16.83

FISHER RIVER NEAR COPELAND, N.C.

LOCATION.—Staff gage 300 feet above highway bridge on State Highway 268, 1 mile above Cody Creek, and 2 miles west of Copeland, Surrey County.
DRAINAGE AREA.—125 square miles.
RECORDS AVAILABLE.—October 1931 to September 1933.
DISCHARGE.—Maximum during year, 6,890 second-feet Nov. 1 (gage height, 10.60 feet); minimum, 36 second-feet Sept. 29–30 (gage height, 1.84 feet).
1931–33: Maximum, that of Nov. 1, 1932; minimum, 21 second-feet Sept. 18, 1932 (gage height, 1.70 feet).
REMARKS.—Records fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	2,070	152	265	149	162	172	177	117	89	89	70
2	55	361	145	247	147	154	200	167	109	77	525	63
3	52	247	137	214	147	154	169	321	103	78	427	60
4	49	200	135	200	162	149	167	180	101	75	283	63
5	720	177	131	185	175	149	162	780	97	72	111	77
6	867	177	128	200	177	154	265	361	97	65	88	68
7	142	200	124	182	185	152	230	247	99	61	77	73
8	110	214	135	172	361	475	177	214	89	58	70	70
9	93	875	149	361	265	214	169	200	93	54	68	66
10	86	475	159	283	214	185	167	214	95	54	68	61
11	93	283	162	214	230	177	157	200	101	68	77	50
12	77	230	177	185	185	175	302	182	105	80	66	54
13	70	185	185	182	177	169	169	169	103	75	140	214
14	70	172	214	177	185	172	175	159	95	65	80	140
15	68	172	200	167	404	175	175	147	91	72	66	84
16	101	157	180	162	247	172	632	152	89	79	91	79
17	3,210	157	164	157	230	164	341	175	84	68	77	66
18	605	145	162	157	214	169	265	142	79	70	230	63
19	283	475	167	159	200	450	341	135	73	77	103	66
20	230	283	172	154	302	720	265	133	70	142	122	66
21	162	214	162	152	283	321	230	135	72	84	70	65
22	142	200	154	152	247	247	214	131	68	68	75	61
23	128	175	149	149	200	230	200	131	70	56	72	44
24	117	164	361	149	185	230	200	128	84	50	66	48
25	111	154	500	200	177	230	185	120	79	49	60	44
26	111	321	427	283	175	230	185	117	80	54	58	39
27	578	200	302	182	169	185	175	117	79	61	55	38
28	167	177	525	177	164	175	175	120	126	185	50	38
29	140	169	525	169	------	172	172	115	117	720	52	37
30	128	162	450	159	------	169	169	120	164	91	60	37
31	122	------	361	152	------	167	------	149	------	84	70	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,210	49	288	2.30	2.65
November	2,070	145	306	2.45	2.73
December	525	124	229	1.83	2.11
January	361	149	192	1.54	1.78
February	404	147	213	1.70	1.77
March	720	149	221	1.77	2.04
April	632	157	220	1.76	1.96
May	780	115	188	1.50	1.73
June	164	68	94.3	.754	.84
July	720	49	96.0	.768	.89
August	525	50	114	.912	1.05
September	214	37	66.8	.534	.60
The year	3,210	37	186	1.49	20.15

SOUTH YADKIN RIVER AT COOLEEMEE, N. C.

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

DRAINAGE AREA.—560 square miles.

RECORDS AVAILABLE.—June 1928 to September 1933.

DISCHARGE.—Maximum during year, 16,200 second-feet Oct. 18 (gage height, 25.83 feet); minimum, 15 second-feet Oct. 4 (gage height, 0.49 foot).

1928–33: Maximum (estimated), 24,800 second-feet Oct. 3, 1929 (gage height, 32.25 feet); minimum, 10 second-feet Nov. 25, 1931 (gage height, 0.40 foot).

REMARKS.—Records good below 1,000 second-feet and fair above except those estimated, Nov. 27 to Dec. 1, which are fair. Flow regulated by Erwin Cotton Mills.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	2,410	650	1,910	634	653	664	489	421	234	332	329
2	158	7,640	604	1,470	636	635	489	484	408	289	315	192
3	217	5,480	585	1,160	619	617	566	558	265	373	530	254
4	166	1,410	550	1,030	758	633	566	656	362	141	571	246
5	194	934	519	944	549	576	533	950	414	284	636	1,180
6	1,220	775	512	866	626	577	598	2,460	373	231	358	1,560
7	982	726	502	970	724	630	879	1,650	317	248	330	560
8	414	735	489	690	1,910	829	772	871	321	189	266	467
9	306	1,300	478	1,260	1,540	724	494	700	374	140	281	274
10	336	2,950	578	1,400	983	646	569	629	228	229	122	310
11	200	2,380	551	1,010	901	626	552	722	304	247	328	343
12	233	1,280	1,330	1,220	990	581	1,560	1,470	413	415	122	302
13	213	680	1,620	921	855	588	904	2,250	370	250	222	654
14	212	700	1,750	819	862	591	664	1,280	382	259	452	780
15	183	637	1,590	770	1,400	666	663	748	294	226	230	439
16	406	601	1,080	733	1,400	679	630	630	303	160	1,690	258
17	5,240	586	850	709	1,060	590	726	651	232	289	752	354
18	13,800	564	750	691	982	651	697	555	278	237	998	378
19	8,800	2,080	748	676	831	582	723	500	324	246	478	331
20	2,550	2,550	725	663	1,400	1,190	759	503	287	245	362	283
21	875	1,290	674	649	1,510	1,750	654	456	274	743	357	288
22	772	856	736	610	1,060	1,030	666	475	261	290	337	287
23	412	712	1,270	631	906	810	546	432	258	258	264	151
24	472	650	2,040	608	817	719	564	441	287	241	256	250
25	444	589	2,770	721	837	707	543	445	423	227	277	290
26	415	2,090	4,100	1,040	737	630	531	421	371	208	114	251
27	694	2,300	3,840	827	691	642	510	393	336	202	214	249
28	1,080	1,200	3,030	806	668	613	494	446	433	882	262	255
29	614	750	3,190	670	-------	595	492	472	276	872	220	303
30	425	700	2,590	675	-------	579	486	423	376	569	225	183
31	463	-------	1,700	648	-------	568	-------	475	-------	397	254	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	13,800	96	1,370	2.45	2.82
November	7,640	564	1,590	2.84	3.17
December	4,100	478	1,370	2.45	2.82
January	1,910	608	897	1.60	1.84
February	1,910	549	960	1.71	1.78
March	1,750	568	707	1.26	1.45
April	1,560	486	650	1.16	1.29
May	2,460	393	762	1.36	1.57
June	433	228	332	.593	.66
July	882	140	317	.566	.65
August	1,690	114	392	.700	.81
September	1,560	151	400	.714	.80
The year	13,800	96	812	1.45	19.66

ROCKY RIVER NEAR NORWOOD, N.C.

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

DRAINAGE AREA.—1,380 square miles.

RECORDS AVAILABLE.—October 1929 to September 1933.

DISCHARGE.—Maximum during year, 44,100 second-feet Oct. 17 (gage height, 27.55 feet); minimum, 35 second-feet Sept. 30 (gage height, 0.17 foot).

1929–33: Maximum (estimated), 52,500 second-feet Oct. 2, 1929 (gage height, 31.4 feet); minimum, 19 second-feet Oct. 28, 1931 (gage height, 0.10 foot).

Maximum known stage, about 35 feet in August 1908 (estimated discharge, 60,000 second-feet).

REMARKS.—Records good. Some regulation during extreme low flow.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132	4,650	586	2,170	631	728	440	211	486	150	169	89
2	108	3,360	510	1,480	830	654	428	211	204	218	196	106
3	76	1,010	440	1,220	873	579	416	258	138	166	2,840	101
4	83	586	399	1,090	778	543	382	446	115	141	1,650	83
5	122	434	376	990	1,380	510	354	354	101	103	2,320	129
6	1,170	522	354	891	972	483	382	2,530	87	83	731	2,260
7	1,430	2,520	324	762	670	606	2,190	2,970	312	70	222	734
8	515	1,660	304	694	3,080	2,000	1,260	677	339	62	132	536
9	234	1,080	290	4,570	3,270	1,090	631	470	150	60	98	909
10	160	1,680	276	6,730	1,380	702	477	490	103	58	89	250
11	138	1,380	540	2,660	2,080	579	410	639	101	56	68	163
12	98	778	9,200	1,840	4,940	510	1,530	503	841	326	129	126
13	103	565	10,800	1,680	2,540	477	2,820	299	3,980	389	430	114
14	92	458	12,700	1,630	1,780	470	1,100	234	809	132	2,350	2,830
15	83	388	12,200	2,440	1,800	2,340	654	189	281	85	428	1,000
16	4,230	344	4,640	1,630	3,080	1,780	565	172	172	399	7,510	333
17	38,600	324	2,730	1,220	1,780	787	586	147	132	459	4,710	193
18	22,800	299	2,000	1,040	2,210	646	543	132	115	188	2,660	150
19	7,420	962	1,680	909	3,480	728	889	120	101	239	2,000	118
20	1,360	2,770	1,530	821	4,230	2,300	753	118	87	156	4,490	108
21	900	1,300	2,340	728	7,390	7,490	646	106	76	132	1,030	92
22	529	770	3,780	685	3,010	5,660	496	101	74	153	483	83
23	365	550	9,010	654	1,950	1,730	440	94	76	211	314	74
24	309	446	8,310	608	1,530	1,160	376	94	215	123	196	72
25	250	399	7,160	2,170	1,260	864	334	101	286	101	156	58
26	230	1,930	16,000	5,300	1,130	770	319	108	182	74	135	44
27	258	5,100	9,290	1,930	954	710	286	108	103	53	118	43
28	267	1,840	8,590	1,380	812	601	250	110	556	64	213	58
29	214	936	7,640	972	-------	550	234	103	295	72	531	46
30	193	694	4,560	762	-------	496	226	113	222	73	169	41
31	169	-------	2,910	662	-------	458	-------	1,870	-------	101	96	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	38,600	76	2,670	1.93	2.22
November	5,100	299	1,320	.957	1.07
December	16,000	276	4,560	3.30	3.80
January	6,730	608	1,690	1.22	1.41
February	7,390	631	2,140	1.55	1.61
March	7,490	458	1,260	.913	1.05
April	2,820	226	681	.493	.55
May	2,970	94	454	.329	.38
June	3,980	74	358	.259	.29
July	459	56	151	.109	.13
August	7,510	68	1,180	.855	.99
September	2,830	41	365	.264	.29
The year	38,600	41	1,400	1.01	13.79

LYNCHES RIVER AT EFFINGHAM, S.C.

LOCATION.—Staff gage 100 feet upstream from highway bridge, 150 feet upstream from Atlantic Coast Line Railroad bridge, and 1 mile south of Effingham, Florence County. Zero of gage is 57.31 feet above mean sea level.

DRAINAGE AREA.—1,070 square miles.

RECORDS AVAILABLE.—August 1929 to September 1933.

DISCHARGE.—Maximum during year, 6,830 second-feet Oct. 24 (gage height, 15.30 feet); minimum, 168 second-feet June 26, 27.

1929–33: Maximum, 15,200 second-feet Oct. 7, 1929 (gage height, 19.25 feet); minimum, 152 second-feet Oct. 24, 25, 1931.

Maximum stage known, 20.0 feet Aug. 30, 1908 (estimated discharge, 18,000 second-feet).

REMARKS.—Record good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	1,040	1,220	2,560	1,560	2,500	792	475	295	310	370	340
2	310	1,060	1,240	2,370	1,770	2,260	744	445	310	280	355	325
3	325	1,060	1,360	2,410	2,050	2,020	721	491	280	280	400	310
4	310	1,220	1,360	2,720	2,260	1,840	678	491	355	310	445	325
5	310	1,180	1,280	2,840	2,190	1,740	658	491	370	355	430	310
6	280	1,300	1,180	2,720	1,910	1,460	678	571	325	400	385	370
7	265	1,980	1,100	2,560	1,700	1,400	658	587	295	370	415	523
8	280	2,050	976	2,330	1,910	1,420	639	678	265	280	475	604
9	325	1,880	894	2,120	1,940	1,340	621	768	235	235	507	699
10	415	1,910	842	1,940	1,980	1,240	621	744	220	205	491	744
11	491	1,740	894	1,800	2,300	1,280	658	721	265	190	445	744
12	587	1,740	1,300	1,630	2,660	1,280	744	768	295	265	325	744
13	678	1,630	1,560	1,660	2,780	1,280	817	842	265	325	265	699
14	744	1,490	1,770	1,800	2,780	1,300	842	721	250	460	250	587
15	571	1,400	1,910	1,910	2,840	1,420	768	491	265	555	250	445
16	385	1,400	2,120	1,980	2,780	1,420	621	430	325	555	235	415
17	868	1,300	2,330	1,940	2,660	1,400	587	415	415	621	235	445
18	1,220	1,180	2,610	1,980	2,500	1,240	571	385	430	678	265	491
19	1,340	1,100	2,980	1,940	2,910	1,100	555	340	340	523	310	523
20	1,660	1,060	3,580	1,880	2,980	1,000	571	310	265	475	430	460
21	1,770	948	3,920	1,800	2,840	976	571	280	235	817	523	370
22	2,090	948	4,020	1,770	2,660	948	571	280	220	1,180	639	310
23	5,430	921	3,750	1,700	2,260	921	555	265	205	1,340	721	280
24	6,680	1,000	3,260	1,740	2,190	921	587	265	190	1,460	768	235
25	5,320	1,000	2,780	1,660	2,190	976	621	265	182	1,060	842	250
26	3,840	1,120	2,500	1,600	2,500	1,000	658	250	175	792	894	250
27	2,780	1,360	2,410	1,560	2,720	1,060	604	250	175	721	948	220
28	2,220	1,340	2,410	1,520	2,840	1,100	571	265	205	699	921	205
29	1,880	1,300	2,330	1,490	-------	1,060	523	265	220	475	507	190
30	1,520	1,240	2,460	1,400	-------	1,000	491	250	265	355	430	182
31	1,160	-------	2,560	1,420	-------	868	-------	265	-------	340	385	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,680	265	1,500	1.40	1.61
November	2,050	921	1,330	1.24	1.38
December	4,020	842	2,090	1.95	2.25
January	2,840	1,400	1,960	1.83	2.11
February	2,980	1,560	2,380	2.22	2.31
March	2,500	868	1,320	1.23	1.42
April	842	491	643	.601	.67
May	842	250	454	.424	.49
June	430	175	271	.253	.28
July	1,460	190	546	.510	.59
August	948	235	479	.448	.52
September	744	182	420	.393	.44
The year	6,680	175	1,110	1.04	14.07

LUMBER RIVER AT BOARDMAN, N.C.

LOCATION.—Staff gage at State highway bridge 1½ miles below Big Swamp and 1 mile below Atlantic Coast Line Railroad bridge at Boardmar, Columbus County.

DRAINAGE AREA.—1,240 square miles.

RECORDS AVAILABLE.—September 1929 to September 1933.

DISCHARGE.—Maximum during year, 5,230 second-feet Feb. 22, 23 (gage height, 8.30 feet); minimum, 158 second-feet June 27, July 9, 10 (gage height, 0.60 foot).

1929–33: Maximum, 7,430 second-feet Oct. 9, 1929 (gage height, 9.20 feet); minimum, 132 second-feet Oct. 12, 1930.

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312	1,360	2,380	3,440	2,650	3,270	1,190	1,030	385	232	355	355
2	298	1,300	2,260	3,440	2,800	3,110	1,140	987	385	232	355	326
3	284	1,300	2,260	3,270	2,800	2,950	1,080	987	385	210	370	298
4	271	1,420	2,260	3,110	2,950	2,800	1,030	945	400	206	385	312
5	258	1,570	2,260	2,950	3,110	2,650	987	907	400	194	400	370
6	245	1,660	2,150	2,950	3,270	2,510	945	872	400	182	466	466
7	245	1,850	2,050	2,800	3,440	2,380	945	840	385	170	466	538
8	258	2,150	1,950	2,650	3,620	2,260	907	840	370	170	466	618
9	271	2,380	1,850	2,650	3,620	2,150	872	810	340	158	466	731
10	284	2,510	1,750	2,510	3,810	2,050	840	783	298	158	449	810
11	284	2,650	1,660	2,510	3,810	1,950	810	783	284	194	466	872
12	298	2,950	1,750	2,380	3,810	1,950	783	756	271	232	483	872
13	312	2,950	2,050	2,380	4,000	1,850	783	731	258	271	483	872
14	326	2,800	2,380	2,260	4,200	1,850	783	706	271	298	500	840
15	326	2,650	2,800	2,260	4,200	1,850	810	706	284	326	538	810
16	355	2,650	3,110	2,260	4,200	1,750	907	683	298	355	538	731
17	432	2,510	3,440	2,150	4,400	1,750	1,080	683	312	370	557	660
18	519	2,380	3,810	2,260	4,600	1,660	1,300	683	326	370	557	597
19	597	2,510	4,000	2,510	4,600	1,660	1,570	639	312	385	557	519
20	683	2,650	4,200	2,650	4,810	1,660	1,660	576	284	385	557	466
21	731	2,650	4,400	2,650	5,020	1,490	1,750	519	258	400	557	415
22	783	2,800	4,400	2,650	5,230	1,490	1,950	449	232	415	538	355
23	840	2,950	4,400	2,650	5,020	1,420	1,850	432	219	415	538	312
24	810	2,950	4,400	2,800	4,600	1,420	1,660	432	206	432	538	284
25	840	2,800	4,400	2,800	4,400	1,420	1,570	415	194	449	538	271
26	907	2,650	4,200	2,800	4,400	1,360	1,490	400	170	449	538	245
27	987	2,510	4,200	2,800	4,000	1,360	1,360	385	170	466	519	245
28	1,190	2,380	4,000	2,800	3,620	1,300	1,240	370	206	432	483	232
29	1,360	2,380	3,810	2,800	-------	1,300	1,140	355	232	400	449	232
30	1,490	2,380	3,620	2,800	-------	1,240	1,080	370	245	370	415	219
31	1,420	-------	3,620	2,800	-------	1,240	-------	370	-------	355	385	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,490	245	588	0.474	0.55
November	2,950	1,300	2,360	1.90	2.12
December	4,400	1,660	3,090	2.49	2.87
January	3,440	2,150	2,700	2.18	2.51
February	5,230	2,650	3,960	3.19	3.32
March	3,270	1,240	1,910	1.54	1.78
April	1,950	783	1,180	.952	1.06
May	1,030	355	659	.531	.61
June	400	170	293	.236	.26
July	466	158	313	.252	.29
August	557	355	481	.388	.45
September	872	219	496	.400	.45
The year	5,230	158	1,490	1.20	16.27

BLACK RIVER AT KINGSTREE, S.C.

LOCATION.—Tape gage at highway bridge at Kingstree, Williamsburg County. Zero of gage is 23.97 feet above mean sea level.

DRAINAGE AREA.—1,240 square miles.

RECORDS AVAILABLE.—August 1929 to September 1933.

DISCHARGE.—Maximum during year, 4,600 second-feet Feb. 19, 20 (gage height, 11.2 feet); minimum, 13 second-feet several times in June and July (gage height, 0.50 foot).

1929-33: Maximum, 6,400 second-feet Jan. 25, 1930 (gage height, 12.2 feet); minimum, 5 second-feet from Oct. 18 to Dec. 4, 1931 (gage height, 0.20 foot).

Maximum stage known, 18.0 feet Sept. 21, 1928 (estimated discharge, 26,300 second-feet).

REMARKS.—Records good.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	358	1,460	1,200	2,510	1,550	2,620	721	259	40	13	259	35
2	330	1,410	1,140	2,400	1,660	2,300	699	246	46	13	234	40
3	316	1,320	1,100	2,400	1,790	2,110	677	234	59	15	198	46
4	302	1,200	1,070	2,300	1,860	1,940	635	210	59	26	176	46
5	344	1,170	1,040	2,300	1,940	1,790	614	198	43	28	165	73
6	373	1,170	1,040	2,300	2,020	1,660	594	187	34	20	154	222
7	373	1,200	1,070	2,110	2,020	1,600	574	176	29	17	144	535
8	358	1,280	1,070	1,940	1,940	1,600	554	176	24	16	124	699
9	330	1,360	1,070	1,860	2,110	1,600	535	165	21	13	97	788
10	316	1,500	1,100	1,790	2,510	1,550	516	154	20	15	89	811
11	302	1,790	1,100	1,660	2,740	1,460	479	144	17	32	73	835
12	276	2,110	1,100	1,600	3,010	1,410	461	134	17	66	59	835
13	251	2,200	1,070	1,550	3,460	1,360	443	124	17	97	52	835
14	227	2,300	1,070	1,600	3,940	1,360	409	124	18	106	43	835
15	215	2,200	1,170	1,660	4,260	1,320	376	124	20	102	35	811
16	316	2,110	1,280	1,660	4,430	1,280	360	115	17	93	34	765
17	451	2,020	1,410	1,720	4,430	1,280	360	106	16	81	32	656
18	678	1,940	1,550	1,790	4,260	1,240	344	103	13	97	40	574
19	859	1,790	1,720	1,940	4,600	1,200	329	97	13	124	38	479
20	1,070	1,660	2,020	2,110	4,600	1,170	314	97	13	154	56	392
21	1,280	1,600	2,510	2,110	4,430	1,170	329	89	13	187	66	329
22	1,360	1,550	3,010	2,110	4,430	1,140	329	81	13	246	66	272
23	1,410	1,460	3,310	2,110	4,430	1,100	329	81	13	376	66	234
24	1,460	1,360	3,460	2,020	4,260	1,070	329	56	13	516	66	222
25	1,500	1,320	3,310	1,940	3,940	1,010	344	52	13	677	59	210
26	1,550	1,360	3,160	1,940	3,620	958	344	43	13	765	56	210
27	1,600	1,460	3,010	1,860	3,310	908	344	35	13	721	43	198
28	1,600	1,500	2,870	1,790	3,010	859	314	35	16	656	35	176
29	1,550	1,360	2,740	1,660	------	811	300	34	13	554	35	144
30	1,500	1,280	2,620	1,600	------	788	286	29	13	443	35	124
31	1,460	------	2,510	1,550	------	765	------	29	------	314	35	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,600	215	784	0.632	0.73
November	2,300	1,170	1,580	1.27	1.42
December	3,460	1,040	1,840	1.48	1.71
January	2,510	1,550	1,930	1.56	1.80
February	4,600	1,550	3,230	2.60	2.71
March	2,620	765	1,370	1.10	1.27
April	721	286	441	.356	.40
May	259	29	121	.098	.11
June	59	13	22.3	.018	.02
July	765	13	212	.171	.20
August	259	32	85.9	.069	.08
September	835	35	414	.334	.37
The year	4,600	13	989	.798	10.82

SANTEE RIVER BASIN

WATEREE RIVER NEAR CAMDEN, S.C.

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

RECORDS AVAILABLE.—January 1903 to June 1910, October 1929 to September 1933.

DISCHARGE.—Maximum during year, 32,000 second-feet Dec. 28 (gage height, 25.37 feet); minimum (estimated), 153 second-feet Oct. 3 (gage height, 1.49 feet) caused by shut-down of power plant.

1904–10, 1929–33: Maximum determined, 199,000 second-feet Oct. 3, 1929 (gage height, 36.2 feet); minimum, that of Oct. 3, 1932.

Maximum stage known, 40.4 feet July 18, 1916, from United States Weather Bureau record. Maximum stage during flood of August 1908, 38.4 feet.

REMARKS.—Records good. Large diurnal fluctuation caused by operation of power plant at Wateree Dam. Considerable regulation by storage in reservoirs upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,740	7,030	7,770	18,300	8,110	8,240	5,330	4,300	4,730	4,290	3,770	4,180
2	719	6,590	7,290	15,200	8,410	6,910	2,020	6,370	4,380	3,290	4,040	3,200
3	4,200	10,700	5,650	11,700	7,200	7,170	4,100	7,190	4,570	5,070	3,490	2,860
4	5,370	12,200	1,430	9,170	6,270	5,510	6,170	7,040	1,140	4,760	2,630	4,200
5	4,380	8,610	4,290	8,680	2,630	3,020	4,200	6,720	4,060	4,610	2,390	4,510
6	4,770	5,630	6,420	7,920	4,790	5,960	4,870	4,610	6,080	5,810	1,180	4,600
7	4,770	7,280	6,320	7,260	8,160	7,000	5,350	5,420	5,650	6,020	2,180	3,820
8	2,690	7,160	6,730	7,970	7,580	6,500	4,590	8,060	6,530	6,140	3,490	3,190
9	752	5,780	6,800	8,070	8,780	6,490	2,160	7,860	7,410	2,960	3,560	2,230
10	3,170	6,180	4,810	9,100	10,800	7,160	5,320	7,280	5,810	4,180	3,080	2,450
11	4,200	9,130	2,880	11,400	8,780	7,150	6,950	7,590	1,800	5,120	3,690	4,700
12	3,720	6,890	5,550	10,700	7,380	4,320	6,980	8,330	3,750	3,780	3,250	4,690
13	4,160	5,440	8,960	10,200	8,130	6,620	6,870	5,470	5,840	3,440	988	4,430
14	4,370	7,630	16,500	9,230	9,240	7,660	6,470	1,000	6,050	3,090	2,920	5,280
15	3,870	7,730	19,300	7,170	7,700	6,770	3,830	3,650	6,180	3,250	4,670	5,080
16	1,690	6,890	18,200	8,710	7,880	6,680	434	7,500	6,270	1,770	4,260	4,050
17	4,740	6,650	15,000	8,590	7,980	5,520	3,950	7,620	5,880	2,070	4,870	2,750
18	3,850	6,590	8,160	6,840	10,300	4,550	5,040	6,830	3,150	3,730	5,180	4,110
19	15,500	5,170	7,450	6,640	11,800	1,500	6,220	7,860	4,530	3,160	3,800	4,960
20	20,800	1,850	8,710	6,410	12,000	4,730	5,160	5,410	6,210	3,770	2,450	4,980
21	15,900	4,100	10,100	4,570	13,300	8,170	7,170	1,330	6,270	2,990	4,850	4,890
22	11,500	6,140	11,200	2,500	14,300	11,700	6,200	4,440	6,230	2,680	5,810	5,000
23	5,250	6,540	11,700	6,220	11,900	10,900	3,570	6,650	6,230	1,650	5,550	4,450
24	5,070	5,200	11,100	8,600	9,670	8,530	6,200	6,430	5,950	2,360	5,030	1,730
25	8,410	6,220	8,590	8,340	7,740	5,680	6,510	6,790	2,630	3,070	5,130	4,380
26	8,870	5,560	14,900	7,650	3,980	1,830	5,560	6,720	4,100	3,430	2,540	5,770
27	7,920	4,690	24,600	10,000	5,780	5,850	5,390	3,480	6,160	2,970	2,540	5,540
28	7,410	10,400	29,600	8,000	7,340	7,540	6,570	268	6,220	3,620	4,780	5,430
29	6,220	9,410	29,200	3,380	-------	6,510	3,500	3,770	6,310	2,820	6,040	4,740
30	1,550	7,640	25,200	6,510	-------	7,070	540	5,030	6,450	1,660	5,070	1,770
31	4,750	-------	20,400	8,630	-------	7,080	-------	4,920	-------	3,020	4,950	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	20,800	719	6,010	1.20	1.38
November	12,200	1,850	6,900	1.38	1.54
December	29,600	1,430	11,800	2.36	2.72
January	18,300	2,500	8,510	1.70	1.96
February	14,300	2,630	8,500	1.70	1.77
March	11,700	1,500	6,460	1.29	1.49
April	7,170	434	4,910	.980	1.09
May	8,330	268	5,680	1.13	1.30
June	7,410	1,140	5,220	1.04	1.19
July	6,140	1,650	3,620	.723	.834
August	6,040	988	3,810	.760	.876
September	5,770	1,730	4,130	.824	.919
The year	29,600	268	6,290	1.26	17.04

SANTEE RIVER AT FERGUSON, S.C.

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

DRAINAGE AREA.—14,800 square miles.

RECORDS AVAILABLE.—December 1907 to September 1933.

DISCHARGE.—Maximum during year, 56,000 second-feet Jan. 3 (gage height, 14.08 feet); minimum, 6,070 second-feet Oct. 11 (gage height, 4.10 feet).

1907–33: Maximum, 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), caused by regulation of storage reservoirs upstream.

REMARKS.—Records good. Discharge estimated July 2. No daily fluctuation, but very distinct weekly fluctuations during medium and low-water periods, caused by power plants at Parr Shoals Reservoir on Broad River, Camden Reservoir on Wateree River, and Lake Murray on Saluda River.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,200	18,500	24,100	53,000	28,800	35,000	18,100	13,400	14,500	16,500	10,000	17,000
2	13,400	18,800	26,000	53,000	26,000	30,500	17,200	9,050	15,800	16,700	11,300	17,800
3	11,800	20,500	28,800	56,000	25,000	27,200	15,600	10,200	16,500	14 900	13,800	18,100
4	8,400	22,000	27,200	53,000	23,300	25,000	13,400	13,800	16,700	11.800	14,900	16,700
5	8.530	24,100	25,000	53,000	22,600	23,300	13,600	15,600	15,300	12.700	15,100	14,100
6	11,000	28,800	20,500	50,000	21,400	20,900	14,500	16,500	10,400	12.900	14,700	15,800
7	11,800	38,000	18,800	47,000	19,600	18,500	14,500	16,700	11,800	13 600	13,100	17,500
8	12,900	41,000	19,200	44,000	19,600	18,500	14,100	16,200	14,300	14 900	10,900	18,100
9	13,400	38,000	19,200	38,000	20,500	19,200	14,100	17,000	15,300	15 800	11,800	19,200
10	11,800	35,000	18,800	35,000	22,000	19,600	13,100	17,500	16,200	14 700	12,900	20,000
11	7,380	30,500	18,800	32,500	24,100	19,600	12,100	17,800	16,700	11.000	13,400	20,900
12	7,500	28,800	16,500	32,500	27,200	19,600	13,100	17,800	15,800	12.100	13,200	21,400
13	10,000	27,200	15,800	32,500	32,500	18,800	14,500	17,500	12,700	14 300	13,200	22,000
14	10,700	27,200	18,800	35,000	38,000	17,200	14,900	17,200	12,700	15,300	11,600	22,000
15	10,900	27,200	21,400	38,000	41,000	17,200	15,300	15,600	14,500	16 000	8,530	22,000
16	11,200	26,000	23,300	41,000	41,000	17,800	15,800	12,700	15,800	16,000	10,300	22,000
17	10,600	25,000	27,200	41,000	38,000	17,500	13,800	12,700	16,500	13 600	13,400	21,400
18	12,300	24,100	38,000	38,000	38,000	17,500	10,700	14,100	16,700	9,600	16,200	19,200
19	16,700	23,300	47,000	35,000	35,000	17,500	12,400	14,500	14,500	10 900	17,800	15,600
20	18,800	23,300	50,000	30,500	35,000	16,200	15,100	14,500	10,900	13 800	18,800	15,600
21	21,400	21,400	50,000	28,800	35,000	16,200	16,500	14,900	12,400	14 900	20,000	16,700
22	44,000	20,500	47,000	26,000	35,000	17,800	17,000	14,100	14,500	15 800	20,500	17,000
23	53,000	20,500	47,000	23,300	41,000	19,600	17,500	10,700	15,300	16,700	20,500	17,000
24	53,000	20,900	44,000	20,000	44,000	20,900	16,500	11,900	15,800	16,700	20,500	17,000
25	50,000	20,500	41,000	20,000	44,000	22,600	15,100	14,500	16,200	15 600	20,500	14,900
26	47,000	20,000	41,000	20,900	44,000	24,100	15,600	15,800	14,700	14 500	19,600	11,300
27	41,000	20,000	38,000	22,000	41,000	24,100	16,200	16,000	11,600	14 500	19,200	13,200
28	35,000	20,000	41,000	24,100	38,000	22,000	16,000	16,200	13,100	14 500	18,500	15,300
29	30,500	20,900	41,000	27,200	-------	20,500	15,800	14,100	15,300	14 500	16,000	16,200
30	26,000	22,600	44,000	30,500	-------	20,000	15,600	9,180	16,200	14 500	15,800	16,500
31	22,600	-------	47,000	30,500	-------	19,200	-------	10,700	-------	12.900	16,200	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	53,000	7,380	21,200	1.43	1.65
November	41,000	18,500	25,200	1.70	1.90
December	50,000	15,800	31,800	2.15	2.48
January	56,000	20,000	35,800	2.42	2.79
February	44,000	19,600	32,200	2.18	2.27
March	35,000	16,200	20,800	1.41	1.63
April	18,100	10,700	14,900	1.01	1.13
May	17,800	9,050	14,500	.980	1.13
June	16,700	10,400	14,600	.986	1.10
July	16,700	9,600	14,300	.966	1.11
August	20,500	8,530	15,200	1.03	1.19
September	22,000	11,300	17,700	1.20	1.34
The year	56,000	7,380	21,500	1.45	19.72

LINVILLE RIVER AT BRANCH, N.C.

LOCATION.—Staff gage at steel highway bridge 800 feet from Branch post office, Burke County, and a quarter of a mile above Lake James.
DRAINAGE AREA.—65 square miles.
RECORDS AVAILABLE.—June 1922 to September 1933.
DISCHARGE.—Maximum during year, 3,800 second-feet Oct. 17, Apr. 16 (gage height, 6.00 feet); minimum, 20 second-feet Oct. 2, 3 (gage height, 1.58 feet).
1922–33: Maximum (estimated), 16,800 second-feet Aug. 15, 1928 (gage height, about 12.0 feet); minimum, 7 second-feet Sept. 8, 1925 (gage height, 1.28 feet). Average, 11 years, 133 second-feet.
REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	535	103	345	156	124	153	113	103	70	94	130
2	21	297	96	292	160	113	130	113	87	55	209	103
3	21	235	89	244	150	110	122	133	81	417	302	96
4	22	178	89	209	139	105	122	127	72	194	205	87
5	57	156	85	178	136	108	127	282	66	119	130	248
6	156	139	83	167	122	103	190	356	64	98	113	136
7	96	133	83	150	164	222	201	209	61	76	96	127
8	83	133	81	150	475	213	146	194	61	62	85	133
9	70	361	83	197	297	133	139	178	62	53	74	136
10	57	361	89	194	231	119	127	253	110	50	72	130
11	37	235	101	167	201	116	119	257	74	89	68	92
12	34	190	146	164	174	113	170	361	64	127	68	94
13	33	164	182	139	170	110	146	287	66	98	61	105
14	30	136	282	133	167	105	119	226	62	83	66	105
15	24	122	282	124	267	113	190	194	53	81	72	92
16	1,390	119	209	119	257	130	2,730	170	48	76	76	89
17	2,860	113	213	113	231	110	785	153	48	108	96	76
18	785	110	170	110	209	119	505	136	48	96	505	76
19	318	182	136	108	222	153	505	124	48	81	190	66
20	231	235	133	103	389	292	361	113	45	96	124	61
21	186	170	124	101	253	277	312	105	44	146	103	57
22	146	156	142	105	217	201	267	103	38	108	96	50
23	113	136	194	103	209	170	226	103	50	85	92	52
24	103	119	282	119	178	153	197	94	170	70	81	52
25	98	113	568	329	164	139	190	98	96	64	70	48
26	103	167	568	267	150	133	160	124	79	61	66	50
27	475	142	475	213	142	130	142	94	68	103	89	48
28	235	127	955	201	136	122	136	89	61	446	72	48
29	164	113	635	170	------	119	124	85	52	160	66	48
30	142	105	446	156	------	108	116	96	66	108	85	47
31	170	------	389	150	------	105	------	156	------	98	170	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,860	21	268	4.12	4.75
November	535	105	183	2.82	3.15
December	955	81	242	3.72	4.29
January	345	101	172	2.65	3.06
February	475	122	206	3.17	3.30
March	292	103	141	2.17	2.50
April	2,730	116	299	4.60	5.13
May	361	85	165	2.54	2.93
June	170	38	68.2	1.05	1.17
July	446	50	115	1.77	2.04
August	505	61	119	1.83	2.11
September	248	47	89.4	1.38	1.54
The year	2,860	21	172	2.65	35.97

LITTLE SUGAR CREEK NEAR CHARLOTTE, N.C.

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

DRAINAGE AREA.—41.4 square miles.

RECORDS AVAILABLE.—July 1924 to September 1933.

DISCHARGE.—Maximum during year, 4,760 second-feet Sept. 13 (gage height, 12.85 feet); minimum, 5.3 second-feet Oct. 3 (gage height, 1.65 feet).

1924–33: Maximum, about 7,030 second-feet Aug. 16, 1928 (gage height, 14.97 feet); minimum, 1.6 second-feet July 30, Aug. 1, 1925.

REMARKS.—Records good below and fair above 1,000 second-feet except those estimated, Dec. 23–28, Sept. 14–25, which are poor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.7	172	21	52	34	29	25	16.0	13.2	17.4	8.9	8.9
2	6.3	27	20	45	37	28	24	50	12.0	11.5	7.9	8.4
3	5.6	18.8	19.5	44	30	27	24	75	11.5	27	138	7.4
4	5.6	16.7	18.8	39	41	27	23	21	11.5	12.5	14.6	7.0
5	15.1	16.0	18.1	38	34	26	22	228	10.5	8.9	23	27
6	60	34	17.4	36	28	25	59	58	10.5	7.9	9.4	16.0
7	9.0	41	17.4	33	71	68	54	28	11.0	7.4	7.9	24
8	6.7	22	16.7	33	145	37	26	37	10.5	7.0	7.4	14.6
9	6.3	74	16.7	216	45	29	23	22	10.0	6.6	7.0	9.4
10	6.0	36	25	74	37	28	22	54	11.0	6.3	8.4	8.4
11	6.3	23	125	53	95	25	19.5	25	10.5	28	104	7.4
12	6.3	18.8	291	52	74	25	140	20	35	10.5	68	7.0
13	6.0	16.0	266	42	55	25	29	18.8	18.1	7.9	18.2	2,070
14	5.6	16.0	353	41	48	28	24	18.1	10.0	6.6	17.9	830
15	5.6	16.0	120	41	100	33	23	16.7	9.4	96	18.6	300
16	644	16.0	71	39	58	26	28	16.0	8.9	28	497	110
17	985	15.3	65	38	48	26	24	15.3	8.9	35	52	40
18	96	121	58	34	63	40	21	13.9	8.4	11.0	23	14
19	45	36	52	33	53	54	129	13.2	8.4	11.5	18.1	14
20	28	24	56	29	169	174	29	12.5	8.4	11.0	12.5	14
21	23	20	71	29	76	330	23	12.0	7.9	10.5	11.0	13
22	20	18.8	200	29	55	58	22	12.0	7.9	8.9	10.5	13
23	18.1	18.1	190	29	48	42	22	12.0	7.4	8.4	10.0	13
24	16.0	17.4	210	28	41	36	20	12.0	8.4	6.6	9.4	12
25	14.6	17.4	200	128	36	33	19.5	19.5	7.4	27	8.4	12
26	13.2	231	300	55	34	33	18.8	12.0	7.0	17.1	8.4	8.9
27	12.0	53	110	37	30	29	16.7	12.5	7.0	10.0	8.4	8.4
28	12.0	32	170	32	30	28	16.0	13.9	11.4	7.0	8.4	7.9
29	11.0	26	108	27	-------	27	16.0	11.5	62	7.0	8.4	7.9
30	10.5	24	90	26	-------	25	16.0	54	66	6.6	9.4	7.4
31	39	-------	76	25	-------	25	-------	24	-------	8.9	10.5	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	985	5.6	69.2	1.67	1.92
November	231	15.3	40.6	.981	1.09
December	353	16.7	109	2.63	3.03
January	216	25	47.0	1.14	1.31
February	169	28	57.7	1.39	1.45
March	330	25	46.6	1.13	1.30
April	140	16.0	32.0	.773	.86
May	228	11.5	30.8	.744	.86
June	66	7.0	14.3	.345	.38
July	96	6.3	15.4	.372	.43
August	497	7.0	37.6	.908	1.05
September	2,070	7.0	121	2.92	3.26
The year	2,070	5.6	51.7	1.25	16.94

BROAD RIVER NEAR CHIMNEY ROCK, N.C.

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

DRAINAGE AREA.—97 square miles.

RECORDS AVAILABLE.—March 1927 to September 1933; May 1907 to June 1909 at Uree, 1⅛ miles downstream.

DISCHARGE.—Maximum during year, 7,080 second-feet Oct. 16 (gage height, 7.68 feet); minimum, 1.1 second-feet Apr. 3 (gage height, 0.34 foot).

1907–9, 1927–33: Maximum (estimated), 20,500 second-feet Aug. 15, 1928 (gage height, 15.0 feet); minimum, 0.7 second-foot Sept. 13, 1928 (gage height, 0.26 foot).

REMARKS.—Records good. Large diurnal fluctuation caused by operation of power plant at dam. Practically no storage utilized in Lake Lure.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	522	140	292	148	143	210	188	141	68	76	151
2	2.9	300	142	349	172	136	80	228	144	2.5	145	151
3	68	224	99	273	139	227	209	229	141	138	115	4.3
4	2.5	221	61	247	215	170	121	229	71	140	116	155
5	68	177	149	272	56	117	130	462	146	72	78	300
6	145	214	218	253	224	140	216	643	71	71	3.9	143
7	142	160	134	219	238	300	252	309	144	72	158	261
8	33	141	67	142	422	233	161	351	71	35	77	320
9	2.9	382	134	301	279	224	101	278	72	2.9	76	282
10	70	442	134	270	221	142	208	232	144	140	73	77
11	71	386	65	217	224	224	133	230	64	74	35	157
12	66	230	239	221	212	69	223	265	145	76	68	157
13	2.5	139	288	226	211	220	139	207	70	75	34	107
14	72	219	265	173	127	138	139	115	71	76	118	80
15	34	144	210	142	220	284	268	220	70	111	70	263
16	2,100	227	210	263	190	277	1,040	225	135	94	150	245
17	1,380	144	247	139	230	140	795	138	71	124	70	99
18	727	138	145	140	234	241	555	141	2.7	75	141	155
19	482	318	218	129	136	142	369	227	145	111	158	3.1
20	227	190	139	223	297	382	265	142	70	144	3.9	155
21	141	223	218	173	368	325	305	70	56	77	148	2.9
22	221	223	141	115	318	175	300	216	70	148	69	131
23	68	220	208	272	223	213	148	140	76	3.3	75	69
24	218	142	383	138	265	217	269	142	257	152	75	3.1
25	68	138	501	226	223	229	225	139	107	75	74	148
26	136	239	689	154	85	117	229	144	141	73	70	3.5
27	219	114	614	208	236	213	221	167	140	75	4.8	132
28	215	221	644	132	227	136	145	91	68	115	153	3.5
29	130	222	704	232	-------	207	165	182	66	70	40	67
30	2.5	219	636	143	-------	133	140	142	219	14	353	67
31	353	-------	495	163	-------	129	-------	142	-------	195	204	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,100	2.5	243	2.51	2.89
November	522	114	229	2.36	2.63
December	704	61	275	2.84	3.27
January	349	115	208	2.14	2.47
February	422	56	219	2.26	2.35
March	382	69	195	2.01	2.32
April	1,040	80	259	2.67	2.98
May	643	70	214	2.21	2.55
June	257	2.7	106	1.09	1.22
July	195	2.5	87.2	.899	1.04
August	353	3.9	97.8	1.01	1.16
September	320	2.9	130	1.34	1.50
The year	2,100	2.5	188	1.94	26.38

BROAD RIVER NEAR BOILING SPRINGS, N.C.

LOCATION.—Water-stage recorder half a mile above mouth of Sandy Run Creek and 3½ miles southwest of Boiling Springs, Cleveland County.
DRAINAGE AREA.—815 square miles.
RECORDS AVAILABLE.—June 1925 to September 1933.
DISCHARGE.—Maximum during year, 23,300 second-feet Oct. 17 (gage height, 13.04 feet); minimum, 283 second-feet Oct. 4 (gage height, 0.60 foot).
1925–33: Maximum, 56,800 second-feet Aug. 16, 1928 (gage height, 23.3 feet); minimum, 186 second-feet Sept. 21, 22, 1925.
REMARKS.—Records good except those estimated, Dec. 15–26, Mar. 7–26, 28, 29, 31, Apr. 1–20, which are fair. Some regulation caused by operation of power plants on Second Broad and Green Rivers.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	443	12,700	1,870	3,160	1,730	1,870	1,500	1,110	1,350	1,010	970	1,730
2	443	5,240	1,610	2,730	1,600	1,560	1,400	1,650	1,170	716	966	1,260
3	435	2,920	1,450	2,790	1,550	1,700	1,200	1,830	1,000	654	1,050	764
4	560	2,240	1,190	2,550	1,520	1,420	1,100	1,620	888	956	1,610	668
5	699	2,070	1,000	2,230	1,370	1,260	1,600	2,300	794	795	1,100	1,230
6	934	1,500	1,550	2,150	1,040	1,140	1,700	5,280	1,030	883	768	1,950
7	964	1,230	1,620	2,120	2,030	4,100	2,200	2,600	1,000	874	520	1,340
8	846	1,680	1,400	1,730	4,920	2,400	1,800	1,970	992	779	825	1,590
9	492	2,460	1,230	1,850	3,170	1,900	1,400	2,370	905	558	772	1,530
10	494	3,060	1,180	2,620	2,540	1,800	1,200	2,150	860	502	789	1,290
11	668	2,360	1,350	2,260	2,280	1,500	1,200	2,130	860	820	856	1,000
12	715	2,160	1,760	2,100	1,850	1,400	1,100	2,760	780	1,240	967	863
13	712	1,450	2,880	2,010	1,530	1,500	1,500	2,330	970	942	644	915
14	461	1,110	3,330	1,990	1,930	1,600	1,500	1,520	892	870	590	903
15	386	1,600	3,000	1,520	2,180	2,800	2,300	1,200	869	790	1,050	847
16	4,270	1,620	2,500	1,240	2,160	1,900	3,700	1,480	991	652	3,680	945
17	22,100	1,640	2,100	1,330	2,000	1,700	2,600	2,010	980	720	1,170	736
18	13,100	1,440	1,700	1,300	2,120	1,600	2,200	1,750	703	922	2,140	564
19	5,640	2,240	2,100	1,710	1,660	2,300	2,100	1,690	634	1,140	2,120	1,020
20	4,100	2,540	1,900	1,650	2,060	3,000	2,000	1,710	906	1,360	1,110	959
21	3,290	1,700	1,800	1,640	3,100	2,200	2,300	1,210	837	1,270	671	900
22	2,610	1,680	2,000	1,330	2,500	1,900	2,100	920	753	1,450	1,150	670
23	2,190	1,580	2,400	1,120	2,250	1,600	1,650	1,320	830	916	1,080	636
24	1,520	1,510	2,900	1,780	2,120	1,500	1,260	1,320	1,130	658	950	437
25	1,570	1,450	4,700	2,230	2,100	1,400	1,990	1,270	1,340	1,110	776	355
26	1,520	4,380	5,800	2,380	1,590	1,400	1,690	1,320	997	923	729	628
27	1,680	2,600	5,620	2,030	1,280	1,260	1,520	1,330	1,240	902	533	574
28	1,680	1,590	5,790	2,010	1,790	1,200	1,570	1,260	1,220	906	515	652
29	1,470	1,920	5,960	1,420	-------	1,100	1,690	954	1,260	1,130	870	576
30	1,280	1,940	4,380	1,320	-------	1,620	1,370	1,310	974	920	1,680	562
31	1,040	-------	3,680	1,710	-------	1,500	-------	1,400	-------	676	1,920	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	22,100	386	2,530	3.10	3.57
November	12,700	1,110	2,450	3.01	3.36
December	5,960	1,000	2,640	3.24	3.74
January	3,160	1,120	1,970	2.42	2.79
February	4,920	1,040	2,070	2.54	2.64
March	4,100	1,100	1,780	2.18	2.51
April	3,700	1,100	1,750	2.15	2.40
May	5,280	920	1,780	2.18	2.51
June	1,350	634	972	1.19	1.33
July	1,450	502	905	1.11	1.28
August	3,680	515	1,120	1.37	1.58
September	1,950	355	936	1.15	1.28
The year	22,100	355	1,740	2.13	28.99

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 September 1933.

DISCHARGE.—Maximum during year, 86,400 second-feet Oct. 18 (gage height, 19.72 feet); minimum, about 197 second-feet Oct. 10 (gage height, 0.36 foot). 1925–33: Maximum (estimated), 239,000 second-feet Oct. 3, 1929 (gage height, 30.7 feet); minimum, about 113 second-feet Sept. 21, 1931 (gage height, 0.23 foot).

REMARKS.—Records good. Diurnal fluctuation caused by operation of Parr Shoals hydroelectric plant, 11 miles upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,730	11,100	6,080	13,900	5,960	6,040	3,500	5,420	4,150	3,220	4,620	6,850
2	1,520	33,400	6,760	12,200	5,960	5,880	4,420	4,770	4,060	2,180	5,630	5,860
3	1,840	26,400	5,030	10,300	5,860	5,720	5,780	5,200	3,660	2,560	3,800	4,120
4	2,110	15,000	3,790	8,380	5,660	5,650	5,230	5,320	1,460	3,710	5,160	3,540
5	2,300	7,230	5,080	8,620	5,340	4,120	5,160	5,460	2,200	3,780	4,540	4,600
6	4,000	6,020	4,900	8,000	6,030	5,680	4,900	5,460	1,990	2,840	4,280	5,320
7	4,940	6,800	5,220	6,790	5,770	5,600	5,140	11,700	3,790	2,840	3,020	9,900
8	3,560	5,120	5,220	6,670	10,300	6,850	4,480	8,680	3,020	2,360	2,670	19,100
9	1,390	5,800	5,070	9,640	18,300	7,640	5,430	6,820	2,740	1,640	2,680	17,700
10	905	15,300	3,760	17,200	13,200	7,280	5,820	6,280	1,920	970	2,440	8,740
11	2,070	13,600	4,490	13,100	10,300	5,330	5,120	6,030	2,760	1,540	1,800	5,960
12	1,860	8,150	18,800	10,000	10,700	5,300	5,240	5,780	1,460	4,820	2,010	4,960
13	1,630	5,800	24,100	8,760	10,000	6,070	5,870	3,990	1,840	5,560	1,120	5,000
14	2,020	6,860	24,800	7,400	8,100	5,800	6,600	5,180	3,760	4,440	2,490	6,290
15	2,120	5,140	26,800	7,080	7,530	5,640	4,000	5,820	3,920	1,680	3,670	4,820
16	2,260	5,220	21,700	7,440	7,700	6,240	4,270	4,380	3,580	1,800	14,700	3,640
17	37,800	5,220	15,600	6,400	7,780	6,710	7,460	4,180	785	2,620	24,300	1,830
18	73,300	5,330	11,900	6,380	11,600	4,880	9,030	4,380	1,680	3,910	14,700	2,140
19	71,700	4,980	11,700	6,060	12,700	4,970	8,300	4,620	1,710	4,620	9,230	3,560
20	28,300	11,500	10,200	5,720	13,700	7,920	9,020	4,900	1,460	5,880	8,400	3,280
21	11,500	11,200	9,660	5,800	17,700	14,900	7,880	1,460	2,160	8,080	6,520	2,980
22	6,540	7,650	9,900	5,060	14,200	12,300	5,340	3,080	2,320	9,400	5,630	2,810
23	5,390	6,560	13,700	6,300	10,700	8,400	5,340	3,590	2,140	6,360	3,600	2,220
24	5,400	5,940	15,500	5,720	8,940	7,040	6,340	4,290	2,840	3,230	3,080	1,050
25	3,860	5,740	18,000	6,780	7,930	6,300	5,350	4,260	2,100	3,600	3,360	2,320
26	4,040	6,840	27,900	11,200	7,060	4,940	5,220	4,580	3,520	2,850	7,340	2,040
27	3,900	25,800	35,500	11,000	7,100	6,480	5,120	3,480	4,850	3,620	2,620	1,960
28	4,280	16,900	36,800	7,770	6,440	5,800	4,980	1,040	3,920	4,050	3,460	2,340
29	3,200	9,880	35,300	6,680	-------	5,450	3,700	3,660	3,000	3,040	2,850	2,170
30	2,920	6,970	30,000	6,900	-------	5,320	1,990	4,130	3,920	778	6,960	1,830
31	4,880	-------	21,100	5,900	-------	4,980	-------	5,030	-------	2,780	8,910	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	73,300	905	9,780	2.04	2.35
November	33,400	4,980	10,200	2.12	2.36
December	36,800	3,760	15,300	3.19	3.68
January	17,200	5,060	8,360	1.74	2.01
February	18,300	5,340	9,380	1.95	2.03
March	14,900	4,120	6,490	1.35	1.56
April	9,030	1,990	5,530	1.15	1.28
May	11,700	1,040	4,930	1.03	1.19
June	4,850	785	2,760	.575	.64
July	9,490	778	3,570	.744	.86
August	24,300	1,120	5,660	1.18	1.36
September	19,100	1,050	4,960	1.03	1.15
The year	73,300	778	7,250	1.51	20.47

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 1933.

DISCHARGE.—Maximum during year, 6,100 second-feet Oct. 17 (gage height, 6.97 feet); minimum, 11 second-feet July 16 (gage height, 0.67 foot).

1925–33: Maximum, 15,000 second-feet Aug. 16, 1928 (gage height, 17.26 feet); minimum, 9.6 second-feet June 21, 1925.

REMARKS.—Records good except those estimated, Apr. 7–20, which are fair. Large diurnal fluctuation caused by operation of Cliffside Mills, a quarter of a mile upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	4,100	310	601	295	341	310	300	225	139	185	450
2	24	2,030	288	434	306	316	313	274	230	94	150	262
3	119	608	250	456	294	276	355	290	149	211	226	206
4	113	440	248	436	272	284	326	282	148	188	460	229
5	135	388	288	409	298	286	258	602	240	232	216	223
6	152	272	252	402	322	315	362	1,500	206	200	239	437
7	187	324	226	418	388	414	380	616	192	162	131	193
8	132	286	252	340	1,250	500	380	480	188	134	174	188
9	33	410	226	492	736	400	340	398	182	20	122	210
10	127	546	155	510	500	349	280	412	131	142	165	209
11	128	392	289	423	430	272	280	404	151	160	130	236
12	121	352	556	424	434	306	320	564	236	310	166	190
13	122	258	690	399	416	339	320	506	166	228	144	205
14	132	314	866	419	376	325	280	362	195	207	184	250
15	62	259	810	296	442	880	240	352	217	114	213	222
16	974	248	564	384	464	470	380	302	215	76	782	136
17	4,790	256	456	290	425	390	560	366	110	208	260	169
18	3,460	241	514	332	412	408	480	300	80	150	545	214
19	794	540	450	318	393	472	420	278	222	268	412	197
20	454	643	386	409	642	662	380	286	158	422	222	174
21	335	439	358	316	731	647	328	242	174	266	223	220
22	326	356	392	327	550	525	336	262	142	207	174	204
23	224	312	610	326	482	446	338	261	150	179	162	92
24	223	285	898	296	426	399	330	263	126	206	160	110
25	201	286	1,580	453	393	355	326	236	168	176	194	114
26	212	1,350	2,190	570	335	358	320	264	224	160	120	146
27	343	738	1,570	418	382	380	292	184	174	160	80	168
28	276	468	1,470	410	314	305	280	251	162	201	196	174
29	264	372	1,520	294	-------	326	252	276	190	177	404	166
30	202	343	922	346	-------	287	264	238	162	162	592	130
31	762	-------	760	317	-------	299	-------	234	-------	198	446	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,790	24	500	2.17	2.50
November	4,100	241	595	2.59	2.89
December	2,190	155	656	2.85	3.29
January	601	290	396	1.72	1.98
February	1,250	272	454	1.97	2.05
March	880	272	398	1.73	1.99
April	560	240	334	1.45	1.62
May	1,500	184	374	1.63	1.88
June	240	80	177	.770	.86
July	422	20	186	.809	.93
August	782	80	254	1.10	1.27
September	450	92	204	.887	.99
The year	4,790	20	377	1.64	22.25

NORTH PACOLET RIVER AT FINGERVILLE, S.C.

LOCATION.—Water-stage recorder about 800 feet downstream from mouth of Obed Creek at McMiller's mill and 1 mile south of Fingerville, Spartanburg County.

DRAINAGE AREA.—116 square miles.

RECORDS AVAILABLE.—November 1929 to September 1933.

DISCHARGE.—Maximum during year (estimated), 6,820 second-feet Oct. 17 (gage height, 15.73 feet); minimum, 39 second-feet several times in October.

1929–33: Maximum, that of Oct. 17, 1932; minimum (estimated), 13 second-feet several times in October 1931.

REMARKS.—Records good. Discharge estimated May 20–25, 27, 29–31, June 1–24, 27–30, July 1 to Aug. 13, 20–31, Sept. 1–25. Diurnal fluctuation caused by operation of mills upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	2,180	183	386	223	217	219	199	150	110	130	160
2	84	861	162	338	221	215	207	198	140	110	160	140
3	81	271	138	315	213	201	201	228	140	140	170	130
4	80	198	130	304	215	199	192	201	130	130	160	180
5	106	177	126	285	217	194	184	350	130	110	120	180
6	204	170	122	266	199	188	279	666	120	110	110	220
7	122	181	117	244	305	376	322	343	120	100	110	300
8	99	170	118	221	876	406	255	320	120	100	110	340
9	90	308	112	384	516	304	223	273	120	100	100	260
10	89	432	118	384	338	274	211	252	120	100	100	160
11	92	261	156	338	315	231	205	246	130	260	140	160
12	83	223	345	338	304	223	421	445	130	320	110	150
13	76	199	459	304	274	213	270	252	140	140	100	120
14	79	183	474	281	263	213	229	217	120	120	95	120
15	77	175	446	250	334	233	310	199	110	110	148	120
16	1,150	167	326	242	315	213	697	200	110	110	711	120
17	5,150	167	304	233	279	209	763	313	110	120	346	100
18	1,750	158	281	227	277	209	418	201	100	130	484	100
19	387	377	242	221	259	253	362	194	100	300	488	90
20	236	322	221	215	475	374	315	140	100	240	200	85
21	182	227	211	211	515	355	292	160	100	360	190	85
22	160	201	233	207	386	304	274	180	100	240	160	85
23	151	183	317	203	350	279	246	170	100	140	130	80
24	148	170	426	209	304	261	233	160	140	140	100	80
25	142	166	963	398	274	240	231	180	355	130	100	80
26	112	642	1,700	384	244	244	217	192	198	170	120	78
27	141	481	858	304	227	225	207	170	140	140	150	77
28	130	277	925	283	221	217	203	205	130	130	100	76
29	118	233	960	244	-------	213	199	160	120	170	110	74
30	114	211	553	235	-------	207	198	160	120	170	240	76
31	466	-------	436	229	-------	205	-------	160	-------	130	260	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,150	76	387	3.34	3.85
November	2,180	158	332	2.86	3.19
December	1,700	112	392	3.38	3.90
January	398	203	280	2.41	2.78
February	876	199	319	2.75	2.86
March	406	188	248	2.14	2.47
April	763	184	286	2.47	2.76
May	666	140	237	2.04	2.35
June	355	100	131	1.13	1.26
July	360	100	157	1.35	1.56
August	711	95	186	1.60	1.84
September	340	74	134	1.16	1.29
The year	5,150	74	257	2.22	30.11

PACOLET RIVER NEAR FINGERVILLE, S.C.

LOCATION.—Water-stage recorder 100 feet above new county higl way bridge, a quarter of a mile downstream from confluence of North and South Pacolet Rivers, and 2½ miles southeast of Fingerville, Spartanburg County.

DRAINAGE AREA.—212 square miles.

RECORDS AVAILABLE.—November 1929 to September 1933.

DISCHARGE.—Maximum during year, 11,000 second-feet Oct. 17 (gage height, 13.31 feet); minimum, 59 second-feet Oct. 2 (gage height, 0.32 foot) caused by shut-down of power plants.

1929–33: Maximum, that of Oct. 17, 1932; minimum, about 28 second-feet Oct. 19, 1931.

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

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jnly	Aug.	Sept.
1	137	3,830	412	577	345	345	356	332	230	177	207	291
2	124	1,820	322	595	350	341	249	324	224	155	236	219
3	141	644	251	550	337	318	337	354	220	197	251	184
4	136	480	170	535	337	321	333	321	205	187	245	280
5	156	426	249	520	246	224	329	472	203	162	200	262
6	282	206	242	505	328	318	388	864	193	163	160	354
7	158	298	236	490	498	570	399	362	192	160	188	520
8	172	279	242	244	1,110	656	372	574	186	154	178	584
9	127	540	233	582	898	546	244	540	186	139	174	505
10	142	755	206	634	628	490	436	510	183	156	162	188
11	136	557	202	579	596	358	482	396	182	326	200	406
12	128	510	556	574	320	242	532	561	185	374	154	310
13	136	232	718	546	535	336	470	390	198	204	147	229
14	130	385	716	525	516	332	472	279	180	179	162	222
15	104	435	772	268	601	348	424	329	174	170	248	198
16	1,200	326	635	354	584	337	726	317	169	158	1,090	188
17	8,260	279	522	358	540	329	1,020	432	175	191	636	141
18	2,840	265	434	350	525	308	668	325	161	257	728	154
19	1,090	616	500	350	273	288	606	310	161	424	818	135
20	626	388	460	341	696	576	557	259	169	366	280	151
21	472	358	455	341	782	618	535	207	165	510	420	114
22	426	337	485	244	634	568	515	280	170	479	399	138
23	193	313	580	445	596	516	264	270	170	200	377	127
24	246	301	718	465	557	381	350	263	210	267	231	117
25	212	260	1,210	595	530	363	354	293	405	258	153	154
26	244	968	2,710	588	268	270	337	308	251	298	174	138
27	256	1,010	1,580	511	354	350	325	250	199	268	204	110
28	184	618	1,610	535	345	345	325	258	179	250	161	128
29	178	465	1,640	261	-------	350	317	242	180	282	161	122
30	152	430	1,030	354	-------	341	230	252	172	225	356	141
31	728	-------	742	350	-------	341	-------	245	-------	232	387	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,260	104	630	2.97	3.42
November	3,830	206	611	2.88	3.21
December	2,710	170	672	3.17	3.66
January	634	244	457	2.16	2.49
February	1,110	246	512	2.42	2.52
March	656	224	388	1.83	2.11
April	1,020	230	432	2.04	2.28
May	864	207	359	1.69	1.95
June	405	161	196	.925	1.03
July	510	139	244	1.15	1.33
August	1,090	147	306	1.44	1.66
September	584	110	227	1.07	1.19
The year	8,260	104	419	1.98	26.85

SOUTH PACOLET RIVER RESERVOIR NEAR FINGERVILLE, S.C.

LOCATION.—Water-stage recorder at highway bridge across South Pacolet River Reservoir, 1 mile upstream from dam and 1¾ miles south of Fingerville, Spartanburg County. Zero of gage is 760 feet above mean sea level.

DRAINAGE AREA.—92 square miles.

RECORDS AVAILABLE.—March 1930 to September 1933.

EXTREMES.—Maximum gage height during year, 17.09 feet Oct. 17; minimum, 7.26 feet June 24.

1930–33: Maximum gage height, that of Oct. 17, 1932; minimum, 2.76 feet Oct. 8, 1930.

REMARKS.—Records good. City of Spartanburg diverts about 3 million gallons daily for water supply from reservoir, also uses water for power purposes. Crest of concrete spillway is 772 feet with 3 feet of flashboards used to increase storage during periods of low flow. Capacity of reservoir, 117,500,000 cubic feet at gage height 15 feet.

Gage height, in feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10.54	16.14	12.91	15.46	12.58	12.69	12.21	12.72	9.92	10.53	11.48	12.42
2	10.59	15.75	12.09	15.21	12.63	12.73	12.50	12.57	9.79	10.57	11.32	12.18
3	10.50	15.23	11.88	14.86	12.62	12.74	12.72	12.73	9.63	10.66	11.17	12.32
4	10.28	14.70	12.15	14.44	12.61	12.75	12.58	12.67	9.66	10.81	11.16	12.15
5	10.32	13.95	12.21	13.93	12.95	13.10	12.41	12.59	9.47	10.70	11.30	11.93
6	10.90	13.90	11.99	13.35	13.18	13.37	12.43	13.52	9.47	10.67	11.47	12.39
7	11.20	14.16	11.72	12.67	13.09	13.47	13.00	14.16	9.37	10.58	11.28	13.02
8	11.24	14.05	11.47	12.83	13.99	13.39	13.20	14.23	9.25	10.48	11.00	14.00
9	11.29	14.23	11.17	13.59	15.29	12.78	13.45	13.58	9.12	10.45	10.74	14.17
10	11.32	14.84	10.96	13.80	14.98	11.98	13.52	12.65	9.99	10.30	10.67	14.03
11	11.30	14.18	11.59	13.41	14.50	11.74	12.57	11.89	9.01	10.42	10.63	13.71
12	11.33	13.92	12.43	12.98	14.81	12.16	12.61	12.02	9.06	11.29	10.71	12.60
13	11.31	13.78	13.35	12.39	14.82	12.56	13.21	12.27	9.11	11.50	10.83	12.34
14	11.24	13.73	14.45	11.65	14.17	12.60	12.43	12.38	9.08	11.50	10.70	12.10
15	11.32	12.69	15.27	11.78	13.79	12.70	12.25	12.35	8.96	11.49	10.74	11.91
16	12.85	11.75	15.26	12.23	13.59	12.70	13.57	12.08	8.85	12.00	14.09	12.09
17	16.58	11.46	15.13	12.38	13.07	12.67	14.90	11.85	8.77	12.26	15.30	12.21
18	14.78	11.18	15.36	12.46	12.48	13.15	14.84	11.51	8.67	12.39	14.64	12.28
19	13.46	11.50	15.06	12.56	12.65	13.72	14.50	11.15	8.46	12.05	15.37	12.29
20	12.34	12.70	14.54	12.64	13.26	14.26	13.92	10.84	8.32	12.47	15.30	12.30
21	11.45	13.12	13.94	12.69	13.73	13.90	13.20	11.00	8.05	13.31	14.78	12.32
22	10.38	13.09	13.36	13.10	13.63	13.21	12.41	11.00	7.78	13.60	13.56	12.33
23	10.08	12.95	13.11	13.26	13.17	12.39	12.34	10.78	7.55	13.27	12.18	12.30
24	10.26	12.79	13.43	12.39	12.53	12.10	12.71	10.63	7.35	13.08	10.95	12.33
25	10.23	12.81	15.22	12.32	11.80	12.06	12.71	10.41	8.65	12.56	10.73	12.21
26	10.22	14.15	16.05	13.03	11.99	12.46	12.69	10.09	10.03	12.35	10.85	12.14
27	10.06	15.63	15.69	12.86	12.49	12.68	12.60	9.78	10.31	12.00	11.41	12.14
28	10.24	15.16	15.69	12.19	12.59	12.60	12.49	10.25	10.47	11.65	11.53	12.20
29	10.48	14.53	15.71	12.20	-------	12.49	12.35	10.33	10.52	11.15	11.60	12.21
30	10.81	13.77	15.49	12.58	-------	12.37	12.55	10.17	10.53	11.60	12.32	12.10
31	11.45	-------	15.32	12.59	-------	12.25	-------	10.01	-------	11.66	12.52	-------

TIGER RIVER NEAR WOODRUFF, S.C.

LOCATION.—Water-stage recorder at Nesbitts Bridge, half a mile downstream from confluence of North and South Tiger Rivers and 6½ miles east of Woodruff, Spartanburg County.

DRAINAGE AREA.—351 square miles (revised).

RECORDS AVAILABLE.—October 1929 to September 1933.

DISCHARGE.—Maximum during year, 7,840 second-feet Oct. 17 (gage height, 7.60 feet); minimum, 63 second-feet Oct. 3 (gage height, 1.72 feet).

1929–33: Maximum, that of Oct. 17, 1932; minimum, 50 second-feet Sept. 19, 1932 (gage height, 1.63 feet).

Maximum stage known, about 20.0 feet during flood of August 1928 (discharge not determined). Maximum stage during September 1929 flood, 14.65 feet (estimated discharge, 30,100 second-feet).

REMARKS.—Records good. Diurnal fluctuation caused by operation of mills upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	152	2,180	482	989	505	557	470	350	367	330	320	399
2	100	3,800	384	777	559	552	278	500	351	201	270	292
3	82	1,850	371	828	517	524	402	504	322	150	304	677
4	174	890	250	777	502	507	484	450	184	300	442	344
5	251	720	309	704	410	351	536	492	147	129	532	318
6	309	356	400	736	471	450	518	646	337	295	189	377
7	210	399	322	605	644	650	528	539	223	195	246	1,470
8	182	470	285	458	1,270	716	496	530	213	168	325	1,880
9	118	768	301	786	1,460	704	383	736	222	133	223	1,630
10	116	881	340	1,100	1,200	570	400	704	272	98	205	798
11	195	712	608	953	1,020	535	494	576	189	1,220	178	396
12	210	650	1,710	820	681	372	538	489	138	1,360	152	434
13	224	356	1,880	665	598	426	528	368	307	510	99	339
14	215	312	1,880	672	650	621	538	291	224	258	264	405
15	166	388	1,710	591	637	580	556	317	215	289	312	450
16	2,030	356	1,330	509	628	495	650	344	216	271	863	315
17	6,550	388	1,210	584	612	390	678	405	233	165	1,180	211
18	5,810	390	792	586	712	466	1,010	402	132	282	586	314
19	2,070	743	680	549	598	440	845	284	121	465	463	355
20	968	688	712	542	673	590	668	310	272	473	246	337
21	665	490	752	605	971	836	574	246	206	1,660	221	289
22	509	522	795	470	1,020	777	527	268	267	949	325	254
23	254	470	1,090	470	881	622	360	407	154	440	309	266
24	263	377	1,440	496	777	567	398	336	264	290	293	116
25	341	374	1,780	714	628	549	521	330	1,020	323	261	123
26	336	1,220	2,770	953	483	420	475	278	420	390	592	234
27	351	1,180	3,380	836	510	452	434	316	452	308	224	225
28	322	696	2,920	688	581	531	438	222	458	281	164	188
29	336	688	2,430	549	-------	497	386	256	341	244	283	143
30	171	584	2,000	542	-------	448	239	352	657	121	396	187
31	515	-------	1,410	522	-------	482	-------	394	-------	305	434	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,550	82	780	2.22	2.56
November	3,800	312	797	2.27	2.53
December	3,380	250	1,180	3.36	3.87
January	1,100	458	680	1.94	2.24
February	1,460	410	721	2.05	2.14
March	836	351	538	1.53	1.76
April	1,010	239	512	1.46	1.63
May	736	222	408	1.16	1.34
June	1,020	121	297	.846	.94
July	1,660	98	407	1.16	1.34
August	1,180	99	352	1.00	1.15
September	1,880	116	459	1.31	1.46
The year	6,550	82	594	1.69	22.96

ENOREE RIVER NEAR ENOREE, S.C.

LOCATION.—Water-stage recorder half a mile upstream from Yarborough Bridge, three-quarters of a mile upstream from mouth of Warrior Creek, and 4 miles southeast of Enoree, Spartanburg County.

DRAINAGE AREA.—307 square miles.

RECORDS AVAILABLE.—August 1929 to September 1933.

DISCHARGE.—Maximum during year, 11,800 second-feet Oct. 17 (gage height, 6.04 feet); minimum, about 10 second-feet Sept. 30, caused by shut-down of power plants upstream.

1929–33: Maximum (estimated), 35,800 second-feet Oct. 2, 1929 (gage height, 10.5 feet); minimum, that of Sept. 30, 1933.

REMARKS.—Records good. Diurnal fluctuation caused by operation of power plants upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	3,540	384	778	430	448	358	324	213	172	334	389
2	122	3,500	312	671	452	425	342	267	250	149	175	284
3	114	1,440	295	602	428	424	399	387	180	250	425	236
4	173	499	298	565	420	427	322	342	218	198	364	276
5	414	408	361	536	370	427	294	503	201	182	326	260
6	346	452	282	508	424	440	406	532	232	145	210	317
7	206	318	309	480	492	523	468	407	170	140	240	2,000
8	174	372	274	462	1,540	564	374	478	260	138	183	1,320
9	176	686	264	1,210	1,130	484	376	478	178	108	141	635
10	118	900	302	1,040	677	447	312	397	146	158	145	367
11	194	535	937	709	608	427	368	384	218	308	196	291
12	90	447	2,960	620	608	418	332	360	262	794	94	273
13	200	343	3,220	568	552	432	377	326	244	367	97	254
14	144	292	2,660	512	518	418	372	219	210	192	170	391
15	169	338	2,220	496	507	408	324	334	158	179	214	322
16	3,920	272	1,080	496	507	387	423	298	164	213	429	261
17	11,000	330	946	476	476	396	575	275	154	181	735	163
18	7,710	250	792	467	584	338	484	273	133	170	753	199
19	1,850	846	748	457	565	420	516	232	156	296	528	192
20	554	589	671	447	852	538	423	263	202	305	202	175
21	418	441	629	427	918	570	387	166	134	339	191	140
22	342	395	1,020	437	745	454	346	280	138	337	183	162
23	278	372	1,310	427	608	414	340	403	160	300	186	99
24	261	298	1,410	438	552	390	347	384	154	225	146	98
25	284	306	1,930	808	518	390	378	310	887	192	143	144
26	258	1,440	3,620	840	496	400	303	263	565	288	1,130	165
27	249	1,030	3,950	599	476	402	328	220	358	180	588	136
28	249	600	4,030	513	460	378	314	296	258	208	221	131
29	222	462	2,690	456	-------	345	332	252	181	114	160	129
30	202	414	1,400	464	-------	308	229	332	322	144	260	83
31	531	-------	939	455	-------	378	-------	293	-------	230	648	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,000	90	1,000	3.26	3.76
November	3,540	250	737	2.40	2.68
December	4,030	264	1,360	4.43	5.11
January	1,210	427	579	1.89	2.18
February	1,540	370	604	1.97	2.05
March	570	308	426	1.39	1.60
April	575	229	372	1.21	1.35
May	603	166	335	1.09	1.26
June	887	133	237	.772	.86
July	794	108	232	.756	.87
August	1,130	94	317	1.03	1.19
September	2,000	83	330	1.07	1.19
The year	11,000	83	546	1.78	24.10

SALUDA RIVER NEAR PELZER, S.C.

LOCATION.—Water-stage recorder half a mile downstream from mouth of Hurricane Creek and 2 miles north of Pelzer, Anderson County.
DRAINAGE AREA.—411 square miles.
RECORDS AVAILABLE.—September 1929 to September 1933.
DISCHARGE.—Maximum during year, 7,990 second-feet Oct. 17 (gage height, 6.39 feet); minimum, 99 second-feet Oct. 1 (gage height, 1.12 feet).
1929–33: Maximum, 9,400 second-feet Oct. 2, 1929 (gage height, 6.88 feet); minimum, 27 second-feet Oct. 20, 1930 (gage height, about 0.82 foot).
REMARKS.—Records good. Diurnal fluctuation caused by operation of power plants at Piedmont and Greenville.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	428	4,850	808	2,510	1,050	1,030	988	832	533	470	468	357
2	400	3,850	746	2,350	1,050	936	810	886	576	662	427	408
3	422	2,000	738	2,010	835	991	778	954	514	524	569	434
4	399	1,370	741	1,820	983	836	788	918	456	626	430	1,040
5	437	1,250	730	1,700	948	968	785	999	526	442	523	1,410
6	826	963	690	1,580	872	908	888	1,430	498	402	485	958
7	661	920	516	1,490	1,190	1,240	1,180	1,470	626	389	437	1,230
8	416	805	703	1,360	2,410	1,170	1,140	1,500	496	380	402	964
9	389	894	637	1,800	2,680	1,280	961	1,370	451	411	396	958
10	417	890	775	1,900	1,860	1,050	932	1,220	624	417	386	928
11	457	967	1,500	1,660	1,470	941	871	1,110	512	456	385	728
12	399	998	2,560	1,510	1,280	998	948	1,120	428	719	340	451
13	372	916	2,140	1,370	1,260	900	987	876	670	564	364	772
14	384	710	2,450	1,300	1,350	1,100	838	852	660	399	384	567
15	340	718	2,420	1,260	1,350	870	1,010	868	386	389	334	442
16	1,540	770	1,900	1,280	1,250	781	1,390	810	400	422	1,710	850
17	6,130	724	1,760	1,320	1,130	807	1,930	764	370	476	597	536
18	7,410	659	1,710	1,290	1,260	884	2,000	750	427	430	481	434
19	4,150	968	1,470	1,190	1,150	958	1,640	602	742	481	440	399
20	1,980	1,100	1,430	1,100	1,380	1,230	1,390	552	448	480	587	504
21	1,410	1,120	1,380	1,090	1,500	1,340	1,340	800	344	998	442	660
22	1,150	1,170	1,320	1,000	1,640	1,240	1,230	855	386	640	412	382
23	792	871	1,520	1,070	1,440	1,020	980	890	461	474	398	249
24	864	808	1,710	1,010	1,360	968	1,010	828	573	478	403	264
25	802	790	2,150	1,240	1,340	982	1,080	734	1,590	432	322	349
26	757	1,300	5,440	1,410	1,140	1,080	887	532	1,240	390	364	362
27	669	1,270	5,990	1,340	1,100	808	874	774	698	660	429	236
28	659	1,080	5,010	1,240	1,030	859	876	1,100	404	560	636	238
29	681	939	5,320	1,000	-------	889	798	602	434	398	396	257
30	638	776	4,560	1,040	-------	874	846	634	422	446	1,080	313
31	1,080	-------	3,030	1,060	-------	859	-------	686	-------	518	986	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,410	340	1,210	2.94	3.39
November	4,850	659	1,210	2.94	3.28
December	5,990	516	2,060	5.01	5.78
January	2,510	1,000	1,430	3.48	4.01
February	2,680	835	1,330	3.24	3.37
March	1,340	781	993	2.42	2.79
April	2,000	778	1,070	2.60	2.90
May	1,500	532	913	2.22	2.56
June	1,590	344	570	1.39	1.55
July	998	380	501	1.22	1.41
August	1,710	322	517	1.26	1.45
September	1,410	236	589	1.43	1.60
The year	7,410	236	1,030	2.51	34.09

SALUDA RIVER AT CHAPPELLS, S.C.

LOCATION.—Water-stage recorder 300 feet below new highway bridge at Chappells, Newberry County, and 8¼ miles upstream from 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 1933.

DISCHARGE.—Maximum during year, 19,200 second-feet Oct. 19 (gage height, 21.28 feet); minimum, 422 second-feet June 19 (gage height, 1.78 feet).

1927–33: Maximum, 63,700 second-feet Oct. 2, 1929 (gage height, 31.5 feet); minimum, 184 second-feet Oct. 20, 1931 (gage height, 0.88 foot).

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

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	949	3,990	1,750	8,200	2,280	2,240	1,790	1,430	1,350	1,080	1,170	2,190
2	792	6,460	1,710	4,860	2,370	2,240	1,670	1,670	1,110	1,080	955	1,550
3	578	8,320	1,650	3,970	2,320	1,960	1,670	1,670	1,110	885	990	889
4	944	6,980	1,390	3,610	2,100	2,100	1,830	1,710	955	1,470	850	724
5	644	2,790	1,470	3,360	2,060	1,670	1,590	1,630	728	1,270	990	1,390
6	1,180	2,240	1,750	3,090	2,100	1,920	1,590	1,940	1,110	1,230	850	2,380
7	1,270	1,920	1,510	2,910	2,100	2,420	1,750	2,420	1,070	885	798	6,610
8	1,070	1,960	1,390	2,680	4,580	2,820	1,960	2,320	920	815	990	10,700
9	762	2,250	1,350	3,820	5,760	2,460	1,920	2,500	1,030	798	728	11,200
10	594	2,780	1,390	5,240	4,840	2,370	1,750	2,320	920	644	677	3,500
11	915	2,460	2,660	4,340	4,060	2,190	1,920	2,380	850	900	694	1,830
12	611	2,060	7,750	3,510	3,690	1,750	1,670	1,960	885	1,550	694	1,830
13	660	1,670	10,900	3,090	3,040	1,920	1,630	2,010	1,110	1,110	578	1,460
14	762	1,790	11,000	2,820	2,730	1,920	1,710	1,470	885	1,100	832	2,390
15	644	1,750	9,700	2,550	2,680	2,010	1,630	1,430	1,030	745	955	1,810
16	2,450	1,510	9,120	2,550	2,640	2,010	1,550	1,710	815	1,490	611	1,230
17	9,320	1,510	8,000	2,500	2,500	1,750	2,320	1,390	694	1,540	1,580	1,150
18	16,400	1,550	5,170	2,500	5,340	1,750	2,640	1,390	644	1,270	2,190	1,270
19	18,000	2,490	4,480	2,460	6,080	1,670	3,040	1,310	546	955	1,490	1,270
20	13,100	3,180	4,030	2,370	5,110	2,610	2,730	1,270	1,090	3,160	885	920
21	6,860	2,680	3,750	2,190	6,000	3,600	2,280	990	955	3,320	885	885
22	2,550	2,280	3,560	2,060	4,230	2,860	2,100	990	677	2,240	1,150	1,030
23	2,060	2,170	3,970	2,060	3,460	2,460	1,880	1,630	1,180	1,330	745	1,070
24	1,550	1,960	4,310	2,190	3,090	2,140	1,670	2,080	879	1,070	745	815
25	1,790	1,610	4,310	3,300	2,820	2,010	1,880	1,630	3,820	1,270	762	628
26	1,590	2,660	5,680	4,120	2,640	1,790	1,880	1,510	5,680	1,030	1,940	752
27	1,550	3,810	7,720	3,390	2,500	2,060	1,670	1,350	3,520	1,310	2,090	798
28	1,430	3,310	10,500	2,820	2,320	1,880	1,550	1,150	1,790	1,270	1,110	745
29	1,310	2,460	14,200	2,460	-------	1,790	1,550	1,720	1,030	1,350	1,310	728
30	1,190	2,140	13,400	2,190	-------	1,750	1,310	1,550	990	815	1,320	660
31	1,160	-------	10,500	2,280	-------	1,790	-------	1,630	-------	711	2,140	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	18,000	578	3,050	2.36	2.71
November	8,320	1,510	2,820	2.19	2.44
December	14,200	1,350	5,490	4.26	4.91
January	8,200	2,060	3,210	2.49	2.87
February	6,080	2,060	3,410	2.64	2.75
March	3,600	1,670	2,130	1.65	1.90
April	3,040	1,310	1,870	1.45	1.62
May	2,500	990	1,680	1.30	1.50
June	5,680	546	1,310	1.02	1.14
July	3,320	644	1,280	.992	1.14
August	2,190	578	1,090	.845	.97
September	11,200	628	2,150	1.67	1.86
The year	18,000	546	2,450	1.90	25.81

SALUDA RIVER NEAR SILVERSTREET, S.C.

LOCATION.—Water-stage recorder 200 feet upstream from new Higgins Ferry Bridge, 1 mile downstream from mouth of Little River, and 2½ miles south of Silverstreet, Newberry County. Zero of gage is 345.907 feet (revised) above mean sea level.

DRAINAGE AREA.—1,570 square miles.

RECORDS AVAILABLE.—January 1927 to September 1933.

DISCHARGE.—Maximum during year, 19,600 second-feet Sept. 8 (gage height, 21.52 feet); minimum, 560 second-feet Aug. 14 (gage height, 4.39 feet).

1927–33: Maximum (estimated), 83,800 second-feet Oct. 3, 1929 (gage height, 33.97 feet); minimum, 248 second-feet Sept. 29, 1927 (gage height, 3.45 feet).

REMARKS.—Records good except those for Jan. 3 to July 19, which were estimated because of backwater from Lake Murray. Some regulation from operation of power plants upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	935	3,670	1,980	11,200	2,600	2,400	2,000	1,600	1,600	1,200	1,350	2,390
2	935	6,620	1,860	7,470	2,800	2,400	2,000	1,800	1,400	1,200	1,180	1,810
3	628	7,760	1,810	5,000	2,800	2,200	1,900	1,800	1,300	1,000	1,150	1,070
4	890	8,480	1,590	4,200	2,400	2,400	2,000	1,800	1,100	1,500	935	762
5	755	3,950	1,540	3,800	2,400	2,000	1,900	1,900	850	1,500	1,040	1,320
6	1,020	2,450	1,860	3,400	2,600	2,200	1,800	1,800	1,200	1,400	935	3,490
7	1,540	2,150	1,640	3,200	2,600	2,600	2,000	2,600	1,200	1,000	810	15,100
8	1,150	2,150	1,540	3,000	4,600	3,200	2,200	2,600	1,000	900	1,040	17,800
9	874	2,520	1,420	4,200	6,500	2,800	2,200	2,800	1,200	900	810	14,700
10	672	3,400	1,480	6,500	5,500	2,600	2,000	2,600	1,000	750	718	7,960
11	880	2,880	2,290	5,500	4,600	2,600	2,200	2,800	950	1,100	718	2,090
12	679	2,270	8,600	4,200	4,200	2,000	2,000	2,200	900	1,800	718	2,260
13	672	1,860	12,500	3,600	3,400	2,200	1,900	2,200	1,200	1,300	672	1,830
14	785	1,920	13,800	3,200	3,200	2,200	1,900	1,700	1,000	1,300	764	4,020
15	695	1,920	12,800	2,800	3,000	2,200	1,800	1,700	1,100	850	985	2,350
16	2,330	1,640	11,100	2,800	3,000	2,200	1,700	1,900	900	1,200	799	1,420
17	9,680	1,640	10,200	2,800	2,800	2,000	2,200	1,700	800	1,900	1,330	1,200
18	15,900	1,640	7,520	2,800	5,500	2,000	2,800	1,600	750	1,400	2,510	1,420
19	18,900	2,650	5,580	2,600	7,500	2,000	3,200	1,500	650	1,100	2,500	1,370
20	16,500	4,040	5,010	2,600	6,000	2,800	3,200	1,400	1,200	2,850	1,150	1,040
21	11,700	3,280	4,560	2,400	6,500	4,000	2,600	1,200	1,100	4,110	935	910
22	3,620	2,630	4,260	2,400	5,000	3,200	2,400	1,100	750	2,880	1,200	1,040
23	2,270	2,390	4,710	2,200	3,800	2,800	2,200	1,400	1,400	1,810	860	1,120
24	1,640	2,210	5,170	2,400	3,400	2,400	1,900	2,400	1,000	1,480	762	885
25	1,920	1,760	5,090	3,400	3,200	2,200	2,000	2,000	3,200	1,480	785	695
26	1,640	2,600	6,510	4,800	3,000	2,000	2,000	1,700	6,000	1,290	2,210	718
27	1,640	4,340	8,700	3,800	2,800	2,200	1,900	1,500	5,500	1,480	2,910	810
28	1,540	4,040	11,400	3,200	2,600	2,200	1,800	1,400	2,400	1,380	1,370	785
29	1,370	2,820	14,900	2,800	------	2,000	1,700	2,000	1,500	1,590	1,370	740
30	1,290	2,390	16,000	2,400	------	2,000	1,700	1,800	1,200	1,070	1,300	672
31	1,120	------	13,800	2,600	------	2,000	------	1,900	------	835	2,390	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	18,900	628	3,420	2.18	2.51
November	8,480	1,640	3,140	2.00	2.23
December	16,000	1,420	6,490	4.13	4.76
January	11,200	2,200	3,780	2.41	2.78
February	7,500	2,400	3,870	2.46	2.56
March	4,000	2,000	2,390	1.52	1.75
April	3,200	1,700	2,100	1.34	1.50
May	2,800	1,100	1,880	1.20	1.38
June	6,000	650	1,510	.962	1.07
July	4,110	750	1,470	.936	1.08
August	2,910	672	1,230	.783	.90
September	17,800	672	3,130	1.99	2.22
The year	18,900	628	2,860	1.82	24.74

LAKE MURRAY NEAR COLUMBIA, S.C.

LOCATION.—Water-stage recorder in intake tower about 200 feet above dam, 10 miles upstream from mouth of Saluda River, and 11 miles northwest of Columbia, Richland County. Gage set to mean sea level datum.
DRAINAGE AREA.—2,400 square miles.
RECORDS AVAILABLE.—August 1929 to September 1933.
EXTREMES.—Maximum gage height during year, 359.23 feet May 16; minimum, 334.36 feet Oct. 16.
1929–33: Maximum gage height, that of May 16, 1933; minimum, 173.2 feet Aug. 31, 1929, when impounding of water started.
REMARKS.—Records excellent.

Gage height, in feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	335.9	340.5	342.8	352.8	354.0	355.8	357.6	358.8	357.9	353.0	348.7	343.5
2	335.9	340.7	342.8	353.3	354.1	355.8	357.7	358.8	357.7	353.0	348.5	343.4
3	335.8	341.0	342.8	353.5	354.2	355.9	357.8	358.8	357.4	352.9	348.2	343.4
4	335.7	341.4	342.9	353.7	354.3	355.9	357.8	358.7	357.3	352.8	348.0	343.3
5	335.6	341.8	343.0	353.8	354.4	356.0	357.8	358.6	357.3	352.8	347.8	343.0
6	335.6	341.9	342.8	354.0	354.4	356.0	357.8	358.7	357.0	352.6	347.8	342.8
7	335.5	342.1	342.8	354.0	354.5	356.2	357.9	358.7	356.8	352.3	347.6	343.7
8	335.4	342.1	342.6	354.0	354.7	356.3	357.9	358.9	356.6	352.0	347.3	344.7
9	335.4	342.1	342.5	354.2	354.6	356.4	357.9	358.9	356.3	352.0	347.0	345.4
10	335.3	342.2	342.4	354.0	354.8	356.5	358.0	359.0	356.0	351.9	346.7	346.1
11	335.1	342.2	342.6	354.2	354.9	356.5	358.0	359.0	356.0	351.6	346.4	346.2
12	334.9	342.2	342.9	354.2	355.0	356.6	358.1	359.0	356.0	351.4	346.2	346.0
13	334.7	342.3	343.4	353.8	354.9	356.7	358.1	359.1	355.8	351.2	346.1	345.7
14	334.5	342.3	344.0	353.5	355.0	356.8	358.1	359.2	355.5	350.9	345.9	345.7
15	334.4	342.2	344.6	353.5	355.0	356.8	358.1	359.2	355.3	350.7	345.6	345.6
16	334.6	342.1	345.2	353.6	355.0	356.9	358.2	359.2	355.0	350.6	345.4	345.5
17	335.9	341.9	345.9	353.7	355.0	356.9	358.3	359.2	354.8	350.7	345.2	345.5
18	337.0	341.8	346.4	353.7	355.0	357.0	358.3	359.2	354.7	350.5	345.1	345.3
19	337.9	341.8	346.9	353.8	355.0	357.0	358.4	359.1	354.6	350.3	345.0	344.9
20	339.0	341.9	347.1	353.8	355.0	357.0	358.5	359.1	354.4	350.1	345.1	344.6
21	339.8	342.2	347.3	353.9	355.0	357.0	358.5	359.1	354.1	350.2	345.1	344.2
22	340.3	342.2	347.4	354.0	355.1	357.1	358.6	359.0	353.8	350.3	344.8	343.8
23	340.5	342.1	347.6	354.1	355.2	357.2	358.6	358.8	353.5	350.3	344.6	343.5
24	340.6	342.1	347.9	354.1	355.4	357.2	358.7	358.7	353.3	350.2	344.3	343.4
25	340.6	342.0	348.2	353.9	355.5	357.2	358.7	358.5	353.4	350.0	343.9	343.2
26	340.5	342.2	348.7	353.6	355.6	357.3	358.7	358.4	353.5	349.8	344.1	342.8
27	340.5	342.4	349.4	353.6	355.7	357.4	358.7	358.4	353.6	349.5	344.3	342.4
28	340.4	342.7	350.0	353.6	355.7	357.4	358.7	358.4	353.5	349.3	344.2	341.9
29	340.4	342.7	350.8	353.7	-------	357.4	358.7	358.4	353.3	349.1	343.9	341.5
30	340.4	342.8	351.5	353.8	-------	357.5	358.7	358.2	353.1	349.0	343.7	341.1
31	340.5	-------	352.3	353.9	-------	357.5	-------	358.1	-------	348.8	343.6	-------

SALUDA RIVER NEAR COLUMBIA, S.C.

LOCATION.—Water-stage recorder a quarter of a mile upstream from site of old Saluda mill and 2 miles upstream from mouth, at Columbia, Richland County. Zero of gage is 150.32 feet above mean sea level.

DRAINAGE AREA.—2,450 square miles.

RECORDS AVAILABLE.—August 1925 to September 1933.

DISCHARGE.—Maximum during year, 24,500 second-feet Feb. 20 (gage height, 9.04 feet); minimum, 42 second-feet May 15.

1925–33: Maximum, 67,000 second-feet Oct. 2, 1929 (gage height, 15.22 feet); minimum, 11 second-feet July 13, 1930.

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

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,450	1,990	1,760	178	1,790	1,550	172	1,250	7,430	3,500	5,900	5,650
2	109	1,850	1,880	534	1,470	1,470	70	2,320	7,780	260	6,030	2,210
3	2,820	1,750	737	1,350	1,420	1,340	1,100	3,510	5,060	3,980	6,210	536
4	2,820	1,300	114	1,170	495	705	1,330	3,610	389	2,340	5,630	4,940
5	2,840	328	2,600	1,180	153	217	1,400	3,350	4,700	3,840	2,460	6,910
6	2,830	114	3,800	1,070	1,270	1,280	1,440	460	7,460	7,300	1,900	6,640
7	2,800	1,330	4,080	3,800	1,550	1,760	1,500	96	6,370	7,460	6,020	6,790
8	1,430	2,470	3,640	551	9,660	1,420	430	1,110	6,640	5,000	6,480	5,880
9	167	2,930	3,280	8,080	6,960	1,200	93	1,320	7,630	317	6,370	2,490
10	3,520	2,960	1,380	8,320	3,740	1,080	1,070	1,410	5,090	5,400	6,560	427
11	3,580	2,910	125	1,590	10,700	272	1,500	1,420	1,190	7,980	6,590	5,950
12	4,220	1,140	3,160	9,000	6,560	110	1,510	1,480	4,760	6,710	3,720	6,560
13	4,110	110	3,920	14,300	6,030	1,050	1,270	405	6,760	6,490	2,310	7,040
14	3,530	2,320	3,900	10,300	2,210	1,360	1,030	86	6,640	6,640	5,820	6,890
15	1,590	4,570	3,230	226	5,420	1,340	276	1,140	6,480	4,660	6,440	6,650
16	600	4,510	2,210	1,650	1,840	1,240	94	1,920	6,720	343	5,690	2,880
17	1,690	4,520	825	1,930	3,400	1,010	900	2,220	4,300	4,980	5,770	1,540
18	2,150	4,440	224	2,200	13,700	385	1,250	1,930	439	6,300	6,350	7,120
19	2,020	1,120	2,380	1,980	12,000	3,700	1,820	2,270	4,780	6,240	560	7,960
20	987	101	2,750	1,980	15,300	6,720	1,720	1,200	7,300	5,670	348	7,990
21	1,060	2,120	2,850	457	9,310	4,800	1,400	980	7,120	5,800	4,620	8,020
22	406	3,040	2,540	154	5,560	1,900	570	4,440	7,100	3,080	6,600	7,760
23	110	2,950	1,750	1,860	1,600	1,800	91	5,980	7,210	960	6,030	3,800
24	1,000	2,340	262	6,360	1,770	1,700	1,670	5,780	3,740	6,040	5,910	2,100
25	2,400	2,670	138	15,100	1,520	455	2,260	5,310	350	6,060	7,080	7,400
26	3,270	1,220	247	11,200	1,160	142	2,240	3,580	3,750	6,550	3,480	8,620
27	2,030	238	1,770	6,420	1,620	1,130	2,300	2,370	4,980	6,550	2,950	8,350
28	1,620	2,260	2,470	1,010	2,040	1,360	2,100	250	5,560	6,080	6,160	8,260
29	805	2,430	2,640	318	-------	1,330	740	4,360	6,960	3,370	6,290	8,720
30	84	2,400	2,400	1,290	-------	1,180	86	6,770	5,860	3,080	4,840	4,950
31	2,530	-------	695	1,470	-------	917	-------	6,900	-------	6,090	4,480	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,220	84	1,950	0.796	0.92
November	4,570	101	2,150	.878	.98
December	4,080	114	2,060	.841	.97
January	15,100	154	3,780	1.54	1.78
February	15,300	153	4,650	1.90	1.98
March	6,720	110	1,480	.604	.70
April	2,300	70	1,110	.453	.51
May	6,900	86	2,560	1.04	1.20
June	7,780	350	5,350	2.18	2.43
July	7,980	260	4,810	1.96	2.26
August	7,080	348	5,020	2.05	2.36
September	8,720	427	5,700	2.33	2.60
The year	15,300	70	3,370	1.38	18.69

EDISTO RIVER BASIN

SOUTH FORK OF EDISTO RIVER NEAR DENMARK, S.C.

LOCATION.—Water-stage recorder at State highway bridge 200 feet downstream from Seaboard Air Line Railway bridge, 1½ miles downstream from mouth of Little River, and 4¾ miles north of Denmark, Bamberg County.

DRAINAGE AREA.—720 square miles.

RECORDS AVAILABLE.—August 1931 to September 1933.

DISCHARGE.—Maximum during year, 2,290 second-feet Nov. 4 (gage height, 8.07 feet); minimum, 223 second-feet June 25.

1931–33: Maximum, about 2,930 second-feet Aug. 12, 1932 (gage height, 8.47 feet); minimum, that of June 25, 1933.

REMARKS.—Records good. Discharge estimated Jan. 2–5, May 10–14.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	518	1,020	1,160	1,420	1,110	1,200	885	595	446	331	417	390
2	518	1,470	1,160	1,520	1,160	1,160	805	595	417	364	382	408
3	560	2,020	1,200	1,520	1,200	1,110	805	595	399	364	348	408
4	560	2,150	1,260	1,470	1,200	1,060	768	595	390	390	331	408
5	560	1,700	1,200	1,360	1,160	1,020	730	540	382	399	331	426
6	610	1,520	1,160	1,260	1,110	1,020	730	520	373	399	339	485
7	750	1,580	1,060	1,200	1,060	1,060	730	500	348	390	331	568
8	915	1,700	1,020	1,160	1,260	1,110	730	485	323	382	315	595
9	915	1,640	970	1,110	1,360	1,160	695	500	315	382	307	595
10	830	1,520	928	1,110	1,420	1,160	695	500	300	382	292	628
11	750	1,360	885	1,110	1,520	1,160	695	485	284	382	277	660
12	670	1,200	885	1,060	1,640	1,110	695	470	323	446	277	660
13	670	1,110	928	1,160	1,700	1,110	660	458	373	520	292	695
14	610	1,110	1,020	1,260	1,760	1,110	628	446	373	446	284	768
15	560	1,060	1,110	1,310	1,700	1,110	628	436	356	408	263	845
16	670	1,060	1,200	1,310	1,580	1,060	628	417	364	390	263	768
17	1,280	1,060	1,260	1,310	1,520	1,020	660	399	373	417	270	695
18	1,680	1,020	1,360	1,260	1,580	928	660	382	356	408	348	595
19	1,900	1,020	1,470	1,160	1,700	928	660	356	315	426	399	540
20	1,760	970	1,470	1,160	1,640	885	628	339	284	470	417	458
21	1,470	970	1,470	1,110	1,580	970	595	323	263	470	446	408
22	1,580	970	1,420	1,110	1,520	1,020	595	315	249	470	458	373
23	1,760	928	1,420	1,060	1,470	1,060	595	307	242	485	470	364
24	1,580	928	1,360	1,020	1,470	1,160	595	323	236	500	470	356
25	1,360	928	1,360	1,060	1,470	1,160	628	331	230	540	446	348
26	1,160	970	1,310	1,110	1,420	1,160	660	331	256	540	436	323
27	1,020	1,060	1,360	1,200	1,360	1,160	660	348	270	520	426	315
28	885	1,110	1,420	1,200	1,310	1,160	628	382	242	520	417	315
29	768	1,110	1,420	1,160	-------	1,060	628	399	242	520	382	315
30	730	1,160	1,360	1,110	-------	970	628	417	249	520	339	323
31	695	-------	1,360	1,060	-------	928	-------	446	-------	470	339	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,900	518	977	1.36	1.57
November	2,150	928	1,250	1.74	1.94
December	1,470	885	1,220	1.69	1.95
January	1,520	1,020	1,210	1.68	1.94
February	1,760	1,060	1,430	1.99	2.07
March	1,200	885	1,070	1.49	1.72
April	885	595	678	.942	1.05
May	595	307	437	.607	.70
June	446	230	319	.443	.49
July	540	331	440	.611	.70
August	470	263	358	.497	.57
September	845	315	501	.696	.78
The year	2,150	230	821	1.14	15.48

SAVANNAH RIVER BASIN

SENECA RIVER NEAR ANDERSON, S.C.

LOCATION.—Water-stage recorder at highway bridge 1½ miles downstream from mouth of Deep Creek, 4 miles upstream from confluence of Seneca and Tugaloo Rivers, and 10½ miles west of Anderson, Anderson County.

DRAINAGE AREA.—1,030 square miles.

RECORDS AVAILABLE.—October 1931 to September 1933.

DISCHARGE.—Maximum during year, 37,600 second-feet Oct. 18 (gage height, 17.73 feet); minimum, about 115 second-feet Aug. 25.

1931–33: Maximum, that of Oct. 18, 1932; minimum, that of Aug. 25, 1933. Maximum known stage, 25 feet Aug. 17, 18, 1928 (estimated discharge, 77,000 second-feet).

REMARKS.—Records good. Diurnal fluctuation caused by operation of power plant upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	914	18,300	1,960	5,900	2,400	2,410	2,150	1,970	1,850	1,440	2,980	1,630
2	914	11,600	1,850	4,770	2,460	2,330	2,090	2,030	1,570	1,500	2,550	1,400
3	1,000	4,070	2,270	4,300	2,350	2,280	2,030	2,400	1,480	1,110	1,610	1,210
4	880	3,210	1,300	4,000	2,340	2,240	1,930	2,140	1,320	1,610	1,550	1,340
5	1,290	2,840	1,670	3,760	2,390	2,170	1,860	2,230	1,350	1,150	1,330	1,290
6	2,150	2,660	1,700	3,540	2,280	2,210	2,270	5,930	1,280	1,020	1,240	1,960
7	1,820	2,350	1,620	3,360	3,150	2,690	3,660	3,130	1,250	980	1,200	2,340
8	1,120	2,280	1,600	3,220	11,300	3,910	2,660	3,340	1,230	1,020	992	2,380
9	1,020	2,270	1,580	4,430	6,140	2,790	2,280	3,260	1,200	820	879	2,000
10	1,190	2,550	1,610	4,770	3,470	2,530	2,220	2,660	1,320	962	894	1,540
11	1,090	2,150	4,620	3,680	3,170	2,370	2,100	2,760	1,280	1,520	922	1,480
12	878	2,060	12,400	3,530	3,060	2,310	2,450	2,480	1,650	2,530	754	1,240
13	944	1,860	10,700	3,210	2,840	2,320	2,300	2,250	1,370	1,320	804	1,240
14	924	1,860	7,630	3,050	2,700	2,320	2,010	2,140	1,200	1,060	1,230	1,170
15	940	1,770	6,800	2,940	2,720	2,290	2,170	1,940	1,090	1,020	976	1,260
16	4,000	1,710	4,520	2,870	2,810	2,180	6,060	1,890	1,110	915	1,360	1,280
17	25,700	1,730	4,830	2,780	2,630	2,120	5,740	1,880	1,090	1,050	1,910	1,060
18	26,900	1,690	4,960	2,720	2,910	2,130	3,470	1,820	1,050	1,020	1,550	1,210
19	7,250	3,540	4,340	2,650	2,790	2,230	3,600	1,760	964	1,560	1,550	950
20	4,220	4,400	3,800	2,580	4,250	3,060	2,940	1,480	1,030	2,120	1,100	914
21	3,420	2,750	3,510	2,530	5,610	3,240	2,650	1,690	1,000	1,690	1,190	857
22	3,030	2,360	3,730	2,490	3,730	2,670	2,490	1,920	983	1,500	836	916
23	2,700	2,130	4,720	2,540	3,200	2,430	2,440	2,600	1,020	1,120	805	631
24	2,500	2,010	5,030	2,410	2,930	2,280	2,360	2,020	2,200	1,130	828	802
25	2,320	2,010	7,500	3,410	2,780	2,230	2,400	1,770	2,380	978	874	918
26	2,170	4,620	14,400	4,240	2,660	2,340	2,270	2,030	1,930	1,390	1,920	738
27	3,040	3,600	11,500	3,070	2,570	2,230	2,110	1,770	1,710	1,840	1,440	784
28	2,770	2,560	12,700	2,760	2,440	2,110	2,070	2,300	1,610	1,770	1,280	723
29	2,260	2,210	15,200	2,510	-------	2,050	1,970	1,880	1,330	1,230	1,120	838
30	2,100	2,060	8,500	2,510	-------	2,010	1,920	1,590	1,290	1,560	3,130	754
31	3,860	-------	6,180	2,410	-------	2,010	-------	1,870	-------	1,380	3,020	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	25,900	878	3,690	3.58	4.13
November	18,300	1,690	3,370	3.27	3.65
December	15,200	1,300	5,640	5.48	6.32
January	5,900	2,410	3,320	3.22	3.71
February	11,300	2,280	3,360	3.26	3.40
March	3,910	2,010	2,400	2.33	2.69
April	6,060	1,860	2,620	2.54	2.83
May	5,930	1,480	2,290	2.22	2.60
June	2,380	964	1,370	1.33	1.48
July	2,530	820	1,330	1.29	1.49
August	3,130	754	1,410	1.37	1.58
September	2,380	631	1,240	1.20	1.34
The year	25,900	631	2,670	2.59	35.22

AUGUSTA CANAL NEAR AUGUSTA, GA.

LOCATION.—Two water-stage recorders at upper end of Augusta Canal. Upper gage is 1,000 feet below diversion dam, 1¼ miles downstream from Stevens Creek power dam, and 5⅝ miles northwest of Augusta, Richmond County. Lower gage is 3⅜ miles downstream from upper gage. Elevation of zero of gages is 46.58 feet (city of Augusta datum) and 149.417 feet above mean sea level.

RECORDS AVAILABLE.—November 1930 to September 1933.

DISCHARGE.—Maximum mean daily during year, 3,210 second-feet Apr. 18; minimum (estimated), 200 second-feet Apr. 28 to May 3, when canal was shut off.

1930–33: Maximum mean daily, 3,320 second-feet Apr. 29, 1931; minimum, that of Apr. 28 to May 3, 1933.

REMARKS.—Records fair. Canal diverts water for power and water-supply purposes from the Savannah River at dam 1 mile downstream from Stevens Creek Dam. Waste water from power houses returns to river by three connections above Thirteenth Street highway bridge. Water is also pumped from canal for water supply for city of Augusta, and a small amount of water entering Beaverdam Ditch is discharged into river about 13 miles downstream from Augusta.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a 2,000	2,800	2,690	1,530	2,830	2,830	2,120	a 200	2,900	2,430	2,640	2,590
2	1,730	2,750	2,730	a 1,900	2,780	2,880	1,430	a 200	2,980	1,350	2,720	1,330
3	2,370	2,530	2,290	a 2,600	2,810	3,020	2,640	a 200	2,340	2,670	2,750	1,040
4	2,400	2,830	1,510	a 2,800	a 2,660	2,670	3,030	a 600	1,240	1,640	2,660	1,620
5	2,290	2,390	2,640	2,750	a 1,600	1,410	2,880	2,020	2,620	2,820	1,760	2,580
6	3,010	1,570	2,750	2,610	a 2,600	2,640	2,830	1,960	2,660	3,030	1,450	2,660
7	2,910	2,610	2,800	1,780	2,840	3,000	2,980	1,530	2,870	2,850	2,670	2,660
8	2,400	2,720	2,810	810	2,590	2,840	2,090	a 2,400	3,070	2,840	2,420	2,240
9	1,620	2,950	2,650	2,340	2,590	2,960	1,260	a 1,700	3,080	a 1,500	2,250	1,490
10	2,460	2,800	2,180	2,650	2,570	2,850	2,560	a 1,700	2,420	a 2,600	2,660	1,360
11	2,530	2,750	758	2,740	2,050	2,210	2,860	a 2,600	1,530	a 2,400	2,590	2,540
12	2,420	2,190	2,620	2,820	1,400	1,470	2,980	a 3,000	2,800	a 2,200	1,920	2,670
13	2,760	1,600	2,070	2,750	2,620	2,660	3,060	a 2,600	3,050	a 3,000	1,790	2,590
14	2,750	2,500	2,360	2,200	3,070	2,790	3,050	1,420	2,990	a 3,200	2,350	2,670
15	2,200	2,640	2,360	1,400	2,780	2,870	2,200	a 2,800	2,820	2,320	2,120	2,540
16	1,010	2,810	2,450	2,700	2,920	2,900	a 400	2,910	2,820	a 1,400	2,220	1,320
17	2,640	2,670	1,840	2,830	2,960	2,980	2,810	3,150	2,460	a 2,800	2,400	1,470
18	1,550	2,760	1,540	2,850	2,320	2,350	3,210	3,020	1,580	2,880	a 2,400	2,580
19	920	2,050	2,840	2,910	1,320	1,470	2,980	3,000	2,540	2,450	a 2,000	2,280
20	2,570	1,670	2,400	2,660	2,310	2,490	3,020	2,400	2,560	2,500	a 1,500	2,310
21	2,730	2,670	2,970	2,230	2,610	2,750	a 2,000	1,510	2,330	2,510	a 2,400	2,590
22	2,230	2,560	2,810	1,050	2,620	2,780	a 220	2,690	2,790	1,710	a 2,200	2,250
23	882	2,750	1,710	2,540	2,730	2,780	a 220	2,880	2,880	1,510	2,140	1,540
24	2,620	2,720	1,660	2,780	2,940	3,000	a 220	3,060	2,500	2,520	2,310	1,360
25	2,640	2,730	1,300	2,730	2,430	2,360	a 220	3,010	1,800	2,420	2,230	2,360
26	2,620	1,990	1,370	2,660	1,450	1,440	a 220	3,030	2,750	2,430	1,590	2,070
27	2,690	1,540	1,790	2,460	2,780	2,620	a 220	2,530	2,920	2,610	1,260	1,860
28	2,800	2,750	1,540	2,250	2,960	2,770	a 200	1,590	2,920	2,620	2,690	2,200
29	2,140	2,710	1,640	1,560	-------	2,850	a 200	3,020	2,980	1,800	2,540	2,560
30	1,140	2,810	638	2,510	-------	3,000	a 200	3,160	3,010	1,570	2,480	1,660
31	2,500	-------	584	2,840	-------	3,000	-------	3,120	-------	2,640	2,670	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	3,010	882	2,240	May	3,160	200	2,230
November	2,950	1,540	2,490	June	3,080	1,240	2,610
December	2,970	584	2,070	July	3,200	1,350	2,360
January	2,910	810	2,360	August	2,750	1,260	2,250
February	3,070	1,320	2,500	September	2,670	1,040	2,100
March	3,020	1,410	2,600				
April	3,210	200	1,810	The year	3,210	200	2,300

a Estimated.

ALTAMAHA RIVER BASIN

OCMULGEE RIVER AT MACON, GA.

LOCATION.—Water-stage recorder at Central of Georgia Railway bridge in city of Macon, Bibb County. Zero of gage is 269.38 feet above mean sea level.

DRAINAGE AREA.—2,290 square miles.

RECORDS AVAILABLE.—January 1893 to September 1913, October 1931 to September 1933.

DISCHARGE.—Maximum during year, 17,300 second-feet Feb. 20 (gage height, 17.93 feet); minimum, 360 second-feet Sept. 25 (gage height, 1.80 feet).

1893–1913: Maximum, 50,900 second-feet Mar. 1, 1902; maximum gage height, 23.5 feet Mar. 16, 1913; minimum discharge, 250 second-feet Aug. 10, 1904 (gage height, −1.0 foot).

1931–33: Maximum, that of Feb. 20, 1933; maximum gage height, 18.1 feet Feb. 4, 1932; minimum discharge, 192 second-feet Nov. 9, 16, 23, 1931; minimum gage height, 1.80 feet Sept. 25, 1933.

Maximum known stage, 25.4 feet Jan. 19, 1925 (estimated discharge from extension of rating curve, 51,000 second-feet).

REMARKS.—Records fair. Record of stage for Oct. 2–5, Dec. 2–10, Mar. 3–11, June 15 to Aug. 2, Sept. 15–30 furnished by United States Weather Bureau. Flow partly regulated by power plant near Jackson, Ga.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	645	2,380	1,770	10,500	2,980	3,480	3,900	1,660	1,210	1,040	960	1,310
2	622	3,360	1,660	6,380	3,480	3,480	3,360	2,260	1,060	892	938	892
3	578	2,220	1,310	4,620	3,140	3,420	3,200	2,320	1,160	870	758	848
4	578	2,540	938	3,090	3,140	2,650	3,260	2,480	938	870	758	825
5	542	2,430	938	2,320	2,320	3,310	3,660	2,100	938	870	938	1,010
6	645	1,460	1,510	2,320	1,110	1,560	3,720	2,430	960	870	825	938
7	668	892	1,360	2,260	2,260	2,430	3,660	1,720	938	870	802	1,110
8	622	1,410	1,360	1,990	5,910	2,700	2,540	3,310	915	870	780	1,240
9	578	960	1,360	1,880	3,960	1,990	2,320	4,680	915	870	690	1,110
10	578	938	1,360	3,090	4,140	1,880	2,160	3,780	938	825	578	938
11	600	1,310	2,210	3,780	6,820	1,880	2,820	2,700	2,540	780	524	870
12	550	1,360	1,040	4,500	6,180	2,100	3,420	2,320	4,140	1,110	578	915
13	578	892	2,430	3,840	4,380	2,160	3,420	2,040	4,560	1,310	506	870
14	600	735	8,320	3,360	4,320	1,720	3,090	1,880	2,320	1,060	524	825
15	645	1,210	7,200	2,540	3,840	2,540	2,700	1,460	1,820	2,380	578	780
16	2,160	1,180	6,380	2,040	3,720	2,430	1,990	2,210	1,770	1,060	519	735
17	3,480	892	6,280	2,650	3,540	2,380	1,720	2,870	1,410	870	645	645
18	3,420	892	6,940	2,600	5,910	2,540	2,160	2,980	938	870	668	470
19	3,040	1,160	7,480	2,040	8,320	2,700	1,770	1,940	892	1,010	802	735
20	3,140	1,180	7,060	1,880	12,000	3,720	1,880	2,820	892	2,040	848	600
21	2,870	1,110	5,400	1,720	15,500	9,780	1,770	1,770	892	2,100	825	470
22	2,540	1,880	4,380	1,660	13,000	12,000	1,410	1,160	892	1,990	960	600
23	1,880	1,820	3,600	1,180	8,620	5,560	1,410	1,110	892	1,610	848	600
24	1,040	2,100	3,140	1,660	6,090	3,780	1,410	1,060	848	1,410	690	510
25	2,540	2,260	2,760	3,310	3,780	3,540	3,660	1,140	892	2,260	712	360
26	2,820	2,980	4,440	6,580	2,760	3,480	4,560	1,060	892	2,430	848	645
27	2,870	2,320	8,620	5,640	2,210	3,140	4,200	1,140	985	1,660	622	645
28	2,600	1,610	9,600	4,200	3,540	2,980	3,600	1,360	985	1,460	712	510
29	2,320	2,160	15,800	2,870	-------	3,260	2,980	1,260	1,180	1,010	645	555
30	1,040	1,990	17,000	2,320	-------	3,200	2,100	1,460	1,310	1,110	915	600
31	802	-------	15,500	2,920	-------	3,260	-------	1,410	-------	1,310	1,260	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,480	542	1,540	0.672	0.77
November	3,360	735	1,670	.729	.81
December	17,000	938	5,130	2.24	2.58
January	10,500	1,180	3,280	1.43	1.65
February	15,500	1,110	5,250	2.29	2.38
March	12,000	1,560	3,390	1.48	1.71
April	4,560	1,410	2,800	1.22	1.36
May	4,680	1,060	2,060	.900	1.04
June	4,560	848	1,370	.598	.67
July	2,430	780	1,280	.559	.64
August	1,260	506	750	.328	.38
September	1,310	360	772	.337	.38
The year	17,000	360	2,430	1.06	14.37

ALTAMAHA RIVER AT DOCTORTOWN, GA.

LOCATION.—Staff gage at Atlantic Coast Line Railroad bridge at Doctortown, Wayne County, about 4½ miles northeast of Jesup. Zero of gage is 28.77 feet above mean sea level.

DRAINAGE AREA.—13,900 square miles.

RECORDS AVAILABLE.—October 1931 to September 1933.

DISCHARGE.—Maximum during year, 46,400 second-feet Mar. 4 (gage height, 8.06 feet); minimum, 3,620 second-feet Aug. 30 (gage height, −0.12 foot).

1931–33: Maximum, that of Mar. 4, 1933; minimum, 1,760 second-feet Oct. 8, 9, 14, 15, 1931 (gage height, −2.3 feet).

Maximum known stage, 14.6 feet Jan. 23, 1925.

REMARKS.—Records excellent.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,560	13,200	14,500	23,800	27,500	43,400	23,800	13,200	5,560	4,150	8,950	3,720
2	8,370	13,200	15,200	22,700	27,500	44,900	22,700	13,200	5,560	4,620	8,750	3,970
3	8,180	13,800	16,000	22,700	27,500	44,900	21,600	13,200	5,560	4,960	8,180	4,150
4	8,000	15,200	16,800	22,700	28,800	44,900	20,600	13,200	5,680	5,080	7,300	4,330
5	8,000	16,000	17,700	23,800	28,800	44,900	19,600	12,700	5,560	4,840	6,490	4,730
6	8,180	16,000	17,700	25,000	30,200	44,900	18,600	11,800	5,320	4,620	6,190	13,800
7	8,180	16,000	16,800	26,200	30,200	43,400	17,700	11,400	5,080	4,420	5,800	22,700
8	8,750	15,200	16,800	27,500	30,200	39,000	16,000	11,100	4,840	4,420	5,680	36,000
9	9,580	16,000	16,000	30,200	31,700	36,000	16,000	10,800	4,620	4,620	5,200	39,000
10	9,580	16,000	15,200	33,100	33,100	31,700	15,200	10,600	4,520	4,520	5,080	36,000
11	9,150	16,800	13,800	36,000	36,000	28,800	14,500	10,300	4,330	4,420	4,840	33,100
12	8,750	16,000	12,700	39,000	37,500	25,000	13,800	10,300	4,150	4,330	4,620	27,500
13	8,180	15,200	11,800	39,000	39,000	22,700	13,800	10,600	4,150	4,520	4,330	20,600
14	7,640	14,500	11,100	37,500	39,000	21,600	13,200	10,600	4,240	4,620	4,060	20,600
15	7,640	13,800	11,800	34,600	39,000	20,600	13,200	10,600	4,730	4,520	3,880	18,600
16	7,820	12,700	12,200	31,700	40,500	19,600	13,200	10,300	5,680	4,730	3,720	16,800
17	8,750	11,800	12,700	28,800	40,500	18,600	12,700	9,810	6,490	5,800	3,720	14,500
18	10,300	11,100	13,800	27,500	40,500	17,700	12,700	9,360	7,470	6,190	3,720	12,200
19	11,800	10,600	14,500	27,500	41,900	16,800	12,200	8,750	8,000	6,650	3,720	10,600
20	13,200	10,300	16,000	25,000	43,400	16,000	11,800	8,560	7,820	6,810	3,640	9,580
21	13,800	10,300	16,800	23,800	43,400	15,200	11,400	8,180	7,130	6,650	3,720	8,180
22	14,500	10,600	17,700	21,600	44,900	14,500	11,100	7,470	6,810	6,810	3,720	6,810
23	15,200	10,600	18,600	21,600	44,900	15,200	11,100	6,970	6,340	7,470	3,800	6,190
24	15,200	10,800	19,600	20,600	44,900	16,000	11,100	6,810	5,560	8,750	4,240	5,560
25	16,000	10,800	20,600	19,600	41,900	18,600	11,400	6,650	4,960	9,360	4,240	5,080
26	16,800	11,100	21,600	18,600	43,400	22,700	11,100	6,490	4,620	9,810	4,150	4,620
27	16,800	11,800	22,700	19,600	40,500	25,000	11,100	6,490	4,330	10,300	3,970	4,420
28	16,800	12,200	22,700	20,600	41,900	25,000	11,800	6,340	4,150	10,600	3,800	4,150
29	16,000	12,700	23,800	25,000	-------	25,000	12,200	5,920	3,970	10,300	3,720	3,970
30	14,500	13,800	25,000	27,500	-------	25,000	12,700	5,680	3,880	10,000	3,640	3,800
31	12,700	-------	25,000	27,500	-------	25,000	-------	5,680	-------	9,360	3,720	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	16,800	7,640	11,200	0.806	0.93
November	16,800	10,300	13,300	.957	1.07
December	25,000	11,100	17,000	1.22	1.41
January	39,000	18,600	26,800	1.93	2.22
February	44,900	27,500	37,100	2.67	2.78
March	44,900	14,500	27,500	1.98	2.28
April	23,800	11,100	14,600	1.05	1.17
May	13,200	5,680	9,450	.680	.78
June	8,000	3,880	5,370	.386	.43
July	10,600	4,150	6,400	.460	.53
August	8,950	3,640	4,860	.350	.40
September	39,000	3,720	13,500	.971	1.08
The year	44,900	3,640	15,500	1.12	15.08

OCONEE RIVER AT DUBLIN, GA.

LOCATION.—Water-stage recorder at Wrightsville & Tennille Railroad bridge in Dublin, Laurens County. Zero of gage is 151.58 feet above mean sea level.

DRAINAGE AREA.—4,350 square miles (revised).

RECORDS AVAILABLE.—1894 to 1898 (fragmentary); February 1898 to December 1913; October 1931 to September 1933.

DISCHARGE.—Maximum during year, 20,700 second-feet Feb. 24 (gage height, 15.01 feet); minimum, 730 second-feet Sept. 29, 30 (gage height, −1.88 feet).

1898–1913: Maximum, 57,200 second-feet Mar. 18–19, 1913 (gage height, 26.5 feet); minimum, 560 second-feet Oct. 18, 20–26, 1904 (gage height, −1.5 feet).

1931–33: Maximum discharge, 31,200 second-feet Jan. 12, 1932 (gage height, 18.8 feet); minimum, 550 second-feet Oct. 22, 23, 1931 (gage height, −2.1 feet).

Maximum known stage, 29.8 feet Jan. 21, 1925 (estimated discharge, 88,600 second-feet).

REMARKS.—Records good. Daily stage Nov. 12 to Dec. 9, Sept. 22–30 from United States Weather Bureau gage, 400 feet upstream from recorder.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,520	2,460	4,880	14,900	7,000	9,430	4,460	3,800	2,040	2,390	2,110	2,110
2	1,830	2,920	3,960	17,000	6,700	7,330	4,540	3,560	1,830	2,040	1,900	2,180
3	1,720	5,510	3,400	18,600	7,000	6,400	5,150	3,320	1,900	1,830	1,720	2,460
4	1,460	7,000	3,160	19,400	6,800	5,900	5,240	3,080	1,720	1,830	1,550	1,900
5	1,460	7,110	2,920	18,600	6,400	5,510	4,800	3,320	1,580	2,460	1,490	1,720
6	1,690	5,240	2,840	15,600	5,800	5,240	4,370	3,960	1,490	2,680	1,550	2,180
7	1,720	3,560	2,760	10,100	5,420	5,420	4,120	3,560	1,430	2,040	1,690	2,530
8	1,520	3,000	2,680	6,500	6,800	6,100	3,900	3,640	1,430	1,690	1,460	3,000
9	1,690	2,920	2,600	5,600	10,300	6,600	4,040	5,800	1,360	1,460	1,270	3,720
10	1,660	3,000	2,600	5,900	11,400	6,400	4,040	5,700	1,330	1,330	1,150	3,640
11	1,430	2,920	2,600	7,330	12,600	6,000	3,880	5,150	1,400	1,240	1,100	3,160
12	1,300	2,690	2,600	8,340	14,000	5,420	3,640	4,540	2,460	1,210	1,040	2,460
13	1,240	2,600	3,000	9,060	15,100	4,970	3,560	3,720	2,920	1,900	1,270	2,040
14	1,240	2,390	5,600	9,300	16,100	4,800	3,400	3,160	4,280	2,460	1,490	1,690
15	1,240	2,250	7,440	8,820	17,200	4,710	3,320	2,920	3,800	2,390	1,270	1,520
16	1,830	2,180	8,460	7,660	16,800	4,710	3,320	2,600	3,160	2,110	1,100	1,400
17	2,920	2,180	9,300	6,700	14,100	4,620	3,560	2,460	2,320	1,760	1,040	1,330
18	4,970	2,110	10,200	6,000	10,900	4,540	4,120	2,320	2,040	1,720	1,040	1,270
19	7,220	2,180	11,200	5,420	10,300	4,370	4,540	2,180	1,690	1,760	1,550	1,210
20	8,100	2,600	12,200	5,060	11,700	5,700	4,120	2,110	1,490	2,040	2,250	1,150
21	8,580	3,160	12,800	4,800	13,500	8,220	3,640	2,040	1,360	1,970	2,460	1,120
22	7,990	5,240	12,900	4,710	15,600	9,560	3,320	1,970	1,330	2,040	2,040	1,070
23	4,880	5,330	12,600	4,540	18,400	10,300	3,160	1,900	1,330	2,530	1,660	1,010
24	3,400	4,120	10,900	4,540	20,500	10,700	3,160	1,900	1,240	3,240	1,460	892
25	2,760	3,320	7,770	4,970	20,500	9,950	3,640	1,830	1,180	2,760	1,300	892
26	2,390	3,080	7,330	6,900	19,200	7,440	5,420	1,830	1,180	2,180	1,180	892
27	2,180	3,480	8,580	9,060	17,200	6,200	6,100	1,900	1,580	1,760	1,100	776
28	2,040	4,200	9,820	10,100	13,700	5,600	5,800	1,970	2,920	1,620	1,070	776
29	1,970	6,000	10,600	11,200	------	5,240	5,150	2,180	3,320	1,690	1,210	730
30	1,970	6,400	11,900	12,000	------	4,880	4,280	2,250	2,840	2,040	2,320	730
31	2,040	------	13,400	10,500	------	4,620	------	2,320	------	2,040	2,250	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,580	1,240	2,840	0.653	0.75
November	7,110	2,110	3,700	.851	.95
December	13,400	2,600	7,190	1.65	1.90
January	19,400	4,540	9,330	2.14	2.47
February	20,500	5,420	12,500	2.87	2.99
March	10,700	4,370	6,350	1.46	1.68
April	6,100	3,160	4,200	.966	1.08
May	5,800	1,830	3,000	.690	.80
June	4,280	1,180	2,000	.460	.51
July	3,240	1,210	2,010	.462	.53
August	2,460	1,040	1,520	.349	.40
September	3,720	730	1,720	.395	.44
The year	20,500	730	4,650	1.07	14.50

SATILLA RIVER BASIN

SATILLA RIVER AT ATKINSON, GA.

LOCATION.—Staff gage at highway bridge on United States Highway 84, about 400 feet downstream from Atlantic Coast Line Railroad bridge and 1 mile west of Atkinson, Brantley County.

DRAINAGE AREA.—2,970 square miles.

RECORDS AVAILABLE.—October 1931 to September 1933.

DISCHARGE.—Maximum during year, 15,200 second-feet Feb. 18 (gage height, 16.96 feet); minimum, 82 second-feet July 2 (gage height, 3.46 feet).

1931–33: Maximum, that of Feb. 18, 1933; minimum, 4.5 second-feet Nov. 19, 20, 1931.

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,710	4,460	2,600	1,910	4,060	9,500	2,600	2,880	660	100	1,340	450
2	3,820	4,320	2,810	1,610	4,600	9,250	2,290	2,740	660	82	1,100	553
3	3,940	4,190	3,040	1,430	5,190	8,300	2,230	2,670	527	97	960	633
4	3,940	4,460	3,210	1,340	6,030	7,630	2,010	2,600	375	129	834	960
5	3,820	5,350	3,300	1,260	6,590	6,990	1,760	2,470	293	158	716	1,340
6	3,500	5,850	3,400	1,220	6,990	6,210	1,520	2,230	239	120	501	3,300
7	2,960	6,590	3,600	1,180	7,200	5,510	1,520	2,060	198	102	579	5,510
8	2,600	6,790	3,400	1,060	7,410	4,890	1,380	1,810	178	98	660	5,850
9	2,350	7,200	3,400	1,140	8,070	4,190	1,300	1,610	158	91	660	13,200
10	2,230	7,200	3,300	1,180	8,300	3,500	1,260	1,340	148	88	633	14,400
11	2,170	6,990	3,040	1,340	8,530	3,040	1,260	1,060	260	84	660	14,900
12	2,110	6,590	2,740	1,660	9,750	2,880	1,340	896	228	88	606	12,700
13	2,110	6,210	2,290	2,110	11,300	2,740	1,520	716	260	112	606	11,900
14	2,230	5,510	1,910	2,880	13,000	2,600	1,610	606	260	108	553	11,000
15	2,600	4,890	1,710	3,500	14,100	2,470	1,660	553	293	210	501	10,000
16	3,040	4,190	1,560	4,460	14,600	2,410	1,710	475	304	553	475	9,500
17	3,940	3,400	1,520	4,890	14,900	2,410	1,810	425	304	633	425	8,770
18	4,890	3,040	1,480	5,510	15,200	2,410	1,910	400	250	710	375	8,300
19	4,890	2,810	1,520	6,030	13,800	2,470	1,910	375	198	660	351	7,630
20	5,190	2,410	1,610	6,400	13,200	2,600	2,010	351	178	688	400	7,200
21	5,350	2,230	1,660	6,210	12,700	2,810	2,010	351	148	774	450	6,210
22	6,030	2,110	1,810	6,210	12,400	3,120	2,060	351	139	896	579	5,510
23	6,790	2,010	1,960	6,210	12,100	3,400	2,110	304	178	1,340	716	4,740
24	6,990	2,110	2,060	5,850	11,900	3,600	2,230	282	198	1,860	745	2,740
25	7,200	2,290	2,110	5,850	11,600	3,820	2,410	282	178	2,230	716	1,810
26	6,990	2,350	2,170	5,680	11,000	3,820	2,530	260	168	2,230	716	1,260
27	6,790	2,350	2,350	5,510	10,800	3,500	2,600	250	148	2,290	716	896
28	6,400	2,290	2,350	4,890	10,000	3,210	2,670	271	139	2,230	553	688
29	6,210	2,230	2,290	4,600	-------	2,960	2,810	293	117	1,810	425	553
30	5,510	2,350	2,230	4,320	-------	2,740	2,880	327	112	1,610	327	501
31	4,740	-------	2,230	4,190	-------	2,670	-------	475	-------	1,520	327	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,200	2,110	4,360	1.47	1.70
November	7,200	2,010	4,160	1.40	1.56
December	3,600	1,480	2,410	.811	.94
January	6,400	1,060	3,600	1.21	1.40
February	15,200	4,060	10,200	3.43	3.57
March	9,500	2,410	4,120	1.39	1.60
April	2,880	1,260	1,960	.660	.74
May	2,880	250	1,020	.343	.40
June	660	112	250	.084	.09
July	2,290	82	767	.258	.30
August	1,340	327	620	.209	.24
September	14,900	450	5,770	1.94	2.16
The year	15,200	82	3,210	1.08	14.70

ST. MARYS RIVER BASIN

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

LOCATION.—Staff gage in sec. 8, T. 1 N., R. 21 E., at highway bridge between Baxter, Fla., and Moniac, Charlton County, Ga., 150 feet upstream from Georgia Southern & Florida Railway trestle. Zero of gage is 97.51 feet above mean sea level.

DRAINAGE AREA.—299 square miles (revised). Watershed in Okeefenokee Swamp indeterminate.

RECORDS AVAILABLE.—January 1921 to December 1923, January 1927 to June 1930, July 1932 to September 1933.

DISCHARGE.—Maximum during year, 1,770 second-feet Feb. 9 (gage height, 9.89 feet); minimum, 1.0 second-foot July 11 (gage height, 0.92 foot).

1921–23, 1927–30, 1932–33: Maximum, about 6,060 second-feet probably on Sept. 19, 1928 (gage height, 16.7 feet); no flow June 16–24, 28, 1921, and May 19 to June 9, 1927.

REMARKS.—Records fair except those below 20 second-feet, those estimated Oct. 30 to Nov. 1, and those interpolated Nov. 14–16, which are poor. Small pumping diversion just above control; during extremely low stages practically entire flow of stream is diverted.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	302	110	132	29	140	175	148	166	12	6.2	27	22
2	275	302	118	26	148	166	132	148	9.0	3.9	20	33
3	288	275	111	26	216	157	140	132	6.2	2.8	17	41
4	302	250	97	33	387	132	175	148	4.8	2.1	35	43
5	288	238	91	35	407	118	195	140	3.7	1.8	39	166
6	302	227	85	35	350	111	450	118	3.2	1.5	79	890
7	317	368	79	33	317	118	745	104	2.7	1.3	132	815
8	275	427	70	31	890	132	610	91	3.6	1.3	104	780
9	250	368	68	37	1,720	118	500	76	3.3	1.1	68	675
10	205	333	63	50	1,620	111	675	63	3.0	1.1	43	500
11	195	275	60	48	1,670	97	815	53	41	1.0	33	368
12	166	238	56	56	1,670	91	970	43	43	1.0	29	317
13	140	205	56	262	1,440	79	815	37	39	1.7	35	350
14	85	175	56	387	1,210	76	580	31	79	2.5	37	288
15	118	156	56	350	970	70	610	23	68	5.0	27	250
16	250	137	56	302	710	68	1,090	19	53	7.2	19	195
17	368	118	58	275	610	60	1,010	15	39	8.8	9.5	118
18	368	111	56	238	525	104	815	13	27	13	18	79
19	333	118	56	205	450	111	640	10	20	17	60	58
20	302	125	56	185	387	262	525	13	16	29	157	43
21	275	111	53	166	368	1,050	450	7.5	11	50	85	31
22	250	104	50	140	333	890	368	21	8.8	104	43	22
23	216	91	50	125	302	710	333	19	9.5	166	27	16
24	175	97	48	125	275	550	302	15	12	175	41	14
25	157	125	41	205	250	450	302	14	20	166	10	10
26	132	157	39	350	227	302	302	12	43	140	7.5	7.5
27	118	216	37	333	205	333	275	9.5	20	118	4.0	4.8
28	97	205	33	262	175	275	227	8.2	17	91	2.7	3.4
29	85	166	33	195	-------	227	195	11	12	68	2.0	2.8
30	70	148	33	175	-------	185	185	18	9.5	50	1.6	2.1
31	65	-------	31	148	-------	166	-------	15	-------	37	2.1	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	368	65	218	0.729	0.84
November	427	91	199	.666	.74
December	132	31	62.2	.208	.24
January	387	26	157	.525	.61
February	1,720	140	642	2.15	2.24
March	1,050	60	242	.809	.93
April	1,090	132	486	1.63	1.82
May	166	7.5	51.4	.172	.20
June	79	2.7	21.3	.071	.08
July	175	1.0	41.1	.137	.16
August	157	1.6	39.2	.131	.15
September	890	2.1	205	.686	.77
The year	1,720	1.0	193	.645	8.78

ST. MARYS RIVER NEAR MACCLENNY, FLA.

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

DRAINAGE AREA.—859 square miles (revised). Watershed in Okeefenokee Swamp indeterminate.

RECORDS AVAILABLE.—October 1926 to September 1933.

DISCHARGE.—Maximum during year, 5,250 second-feet Apr. 17 (gage height, 14.38 feet); minimum, 25 second-feet June 12 (gage height, 1.00 foot).

1926–33: Maximum, about 16,500 second-feet Sept. 20, 1928 (gage height, 21.9 feet); minimum, 12 second-feet May 22, 1932; minimum gage height, 0.04 foot June 4, 5, 1927.

REMARKS.—Records good above 75 second-feet and fair below.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	880	225	479	165	431	511	795	795	59	237	403	145
2	565	547	447	165	431	547	675	715	55	291	319	277
3	675	529	431	155	431	529	601	601	55	125	263	495
4	637	529	361	165	447	479	601	547	51	95	213	565
5	601	547	347	189	715	417	583	511	47	80	189	565
6	637	547	333	189	715	403	715	495	32	67	263	1,950
7	735	675	305	177	715	375	1,410	417	31	59	417	5,250
8	695	855	291	189	755	431	1,900	403	30	51	529	4,990
9	601	1,230	277	189	1,770	431	1,950	347	29	46	479	4,500
10	565	1,080	263	189	2,990	389	1,950	277	28	42	403	4,040
11	479	880	249	189	4,040	361	2,200	263	26	39	333	3,620
12	431	675	237	201	4,040	333	2,770	237	25	37	291	3,070
13	389	601	237	237	4,040	305	3,520	225	237	43	237	2,650
14	347	495	237	601	3,720	291	3,420	189	189	71	213	2,200
15	333	417	225	905	3,240	263	2,990	145	375	529	213	1,950
16	319	389	225	880	2,770	263	3,620	145	305	715	189	1,540
17	447	347	213	880	2,500	237	5,250	135	225	755	155	1,130
18	815	347	237	655	2,150	225	4,990	125	135	601	155	980
19	795	333	263	637	1,770	403	4,380	100	125	463	145	795
20	655	431	249	637	1,410	403	3,720	85	95	715	291	655
21	565	403	237	601	1,230	2,450	2,990	85	75	715	735	583
22	319	347	213	529	1,160	4,500	2,450	85	63	1,480	735	447
23	431	347	213	403	1,030	4,500	1,900	80	59	2,050	529	289
24	375	347	213	375	980	3,620	1,850	63	80	2,150	431	305
25	347	347	201	347	755	2,910	1,580	59	495	1,950	375	291
26	319	403	189	565	735	2,400	1,480	55	687	1,650	291	237
27	291	403	189	855	619	1,900	1,350	51	547	1,280	249	213
28	263	637	189	835	547	1,510	1,260	47	529	1,080	201	177
29	237	583	177	715	------	1,350	980	44	447	815	165	155
30	213	547	165	601	------	1,130	880	41	305	627	135	145
31	189	------	165	463	------	930	------	67	------	511	125	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	880	189	489	0.569	0.66
November	1,230	225	535	.623	.70
December	479	165	260	.303	.35
January	905	155	448	.522	.60
February	4,040	431	1,650	1.92	2.00
March	4,500	225	1,120	1.30	1.50
April	5,250	583	2,160	2.51	2.80
May	795	41	240	.279	.32
June	637	25	180	.210	.23
July	2,150	37	624	.726	.84
August	735	125	312	.363	.42
September	5,250	145	1,480	1.72	1.92
The year	5,250	25	781	.909	12.34

ST. JOHNS RIVER BASIN

WEKIVA RIVER NEAR SANFORD, FLA.

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

RECORDS AVAILABLE.—Discharge measurements from October 1931 to September 1933.

REMARKS.—Wekiva River is fed by large springs. No daily record of stage obtained, but monthly discharge measurements made. Flow is very uniform. Stage affected by backwater from St. Johns River when it is high.

Discharge measurements, in second-feet, 1932–33

Oct. 6	187	Feb. 10	180	June 2	178
Nov. 19	161	Mar. 2	233	July 5	265
Dec. 6	197	Apr. 7	147	Aug. 4	265
Jan. 9	219	May 2	227		

BLUE SPRING NEAR ORANGE CITY, FLA.

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

RECORDS AVAILABLE.—Discharge measurements from March 1932 to September 1933.

REMARKS.—Measurements are made in the spring run just above junction with St. Johns River, a quarter of a mile below spring.

Discharge measurements, in second-feet, 1932–33

Oct. 6	145	Feb. 8	171	June 2	160
Nov. 21	150	Mar. 2	137	July 5	159
Dec. 5	188	Apr. 7	160	Aug. 4	154
Jan. 11	181	May 2	150		

OKLAWAHA RIVER NEAR OCALA, FLA.

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

RECORDS AVAILABLE.—February 1930 to September 1933.

DISCHARGE.—Maximum during year, 1,030 second-feet Sept. 6–9; maximum gage height, 5.52 feet Sept. 6; minimum discharge, 48 second-feet June 4; minimum gage height, −1.17 feet Jan. 15, June 20.

1930–33: Maximum, 1,160 second-feet Apr. 5, 1931 (gage height, 4.00 feet); maximum gage height, that of Sept. 6, 1933; minimum discharge, that of June 4, 1933.

REMARKS.—Records poor because of variable backwater effects of Silver River, and shifting control. Complete regulation of flow throughout year, except September, by power plant at Moss Bluff, 12 miles upstream. Discharge estimated Oct. 30 to Nov. 5, Nov. 22–26, July 8–15.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	168	149	144	65	100	105	121	65	86	168	202
2	173	168	144	139	85	118	101	123	60	104	163	183
3	178	163	149	139	98	123	108	116	49	99	163	163
4	173	173	149	149	107	117	105	117	48	97	163	183
5	173	178	144	154	124	122	106	115	52	100	158	527
6	183	183	139	149	103	117	173	112	51	106	168	1,030
7	188	183	134	149	95	120	280	106	51	111	158	1,030
8	178	183	125	149	134	123	280	101	51	115	149	1,030
9	163	183	130	149	183	130	266	100	55	96	144	1,030
10	163	188	134	149	158	124	340	89	58	105	139	970
11	154	188	134	144	154	121	372	92	58	105	139	862
12	163	188	134	144	154	119	389	94	61	115	144	770
13	168	188	134	144	144	116	383	91	62	105	134	730
14	158	188	134	130	139	114	356	83	67	144	130	659
15	168	188	134	94	144	114	340	81	74	192	144	626
16	173	183	134	100	130	111	335	81	79	229	168	597
17	173	183	134	109	124	115	340	77	67	219	158	571
18	178	178	134	117	123	134	330	78	69	229	168	548
19	173	178	130	120	120	130	305	82	56	221	261	527
20	163	178	130	114	115	130	275	76	56	212	340	507
21	173	173	130	119	111	139	261	77	72	219	335	488
22	158	168	130	125	102	134	231	69	58	219	305	470
23	163	168	130	119	85	130	221	67	67	285	275	437
24	163	168	130	118	85	125	207	65	73	285	275	422
25	163	173	130	118	91	123	188	66	102	285	290	402
26	163	178	134	113	91	122	173	64	107	270	280	383
27	168	183	134	108	84	121	168	63	116	246	270	372
28	168	168	139	90	79	113	144	51	119	231	266	361
29	168	149	134	86	-------	113	132	64	109	202	251	350
30	168	144	139	83	-------	108	130	80	97	183	236	340
31	168	-------	139	75	-------	107	-------	72	-------	178	221	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	188	154	169	May	123	51	86.2
November	188	144	176	June	119	48	70.3
December	149	125	135	July	285	86	173
January	154	75	124	August	340	130	205
February	183	65	115	September	1,030	163	559
March	139	100	120				
April	389	101	238	The year	1,030	48	181

OKLAWAHA RIVER NEAR CONNOR, FLA.

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

RECORDS AVAILABLE.—February 1930 to September 1933.

DISCHARGE.—Maximum during year, 3,700 second-feet Sept. 6 (gage height, 9.14 feet); minimum, 631 second-feet Feb. 1 (gage height, 2.88 feet).

1930–33: Maximum, that of September 1933; minimum, that of February 1933.

REMARKS.—Records good. Operation of power plant at Moss Bluff affects flow at low stages.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	742	709	694	687	631	655	702	750	742	702	853	1,060
2	734	702	702	680	643	661	702	750	725	702	853	1,040
3	734	687	709	680	655	674	702	742	709	709	853	1,020
4	734	709	702	680	667	661	702	759	709	694	853	1,020
5	725	709	702	680	667	661	702	750	709	702	853	2,350
6	734	717	702	680	661	661	750	759	702	717	863	3,610
7	734	734	702	687	649	674	863	742	702	717	863	2,910
8	717	734	694	680	694	680	895	742	702	717	853	2,510
9	717	734	694	687	768	680	853	750	709	717	853	2,280
10	717	725	702	680	717	680	945	742	702	725	853	2,210
11	709	734	702	680	709	674	985	750	702	725	853	2,140
12	717	725	702	680	702	674	1,020	750	709	734	853	2,070
13	709	725	702	687	694	674	985	742	709	734	843	2,070
14	717	717	702	680	680	674	958	742	717	795	843	2,000
15	702	709	694	667	687	674	932	750	709	863	884	2,000
16	717	702	694	649	680	667	945	750	717	884	920	1,930
17	725	702	694	655	674	680	945	742	702	884	920	1,930
18	717	702	694	655	674	694	932	750	709	884	908	1,930
19	709	702	694	661	661	694	920	750	687	895	1,130	1,860
20	709	717	687	661	661	694	884	742	687	895	1,320	1,860
21	709	694	694	661	661	694	873	750	694	895	1,300	1,800
22	694	694	687	655	655	702	884	742	687	920	1,240	1,800
23	687	694	694	661	649	694	843	734	694	1,040	1,160	1,740
24	687	717	687	661	649	687	824	734	694	1,060	1,160	1,740
25	687	725	694	661	655	687	814	734	717	1,100	1,180	1,680
26	694	725	694	661	649	687	804	734	709	1,060	1,200	1,620
27	702	734	687	661	649	687	795	734	717	1,000	1,180	1,620
28	694	702	687	655	643	702	777	725	725	970	1,180	1,620
29	694	694	687	649	-------	694	768	734	717	920	1,150	1,560
30	687	687	694	637	-------	694	759	759	702	884	1,130	1,510
31	694	-------	694	637	-------	694	-------	750	-------	873	1,100	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	742	687	711	May	759	725	745
November	734	687	712	June	742	687	707
December	709	687	696	July	1,100	694	842
January	687	637	668	August	1,320	843	1,000
February	768	631	671	September	3,610	1,020	1,880
March	702	655	681				
April	1,020	702	849	The year	3,610	631	847

OKLAWAHA RIVER AT EUREKA, FLA.

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

RECORDS AVAILABLE.—February 1930 to September 1933.

DISCHARGE.—Maximum during year, 6,260 second-feet Sept. 7 (gage height, 11.00 feet); minimum, 626 second-feet Feb. 2 (gage height, 2.94 feet).

1930–33: Maximum, that of Sept. 7, 1933; minimum, that of Feb. 2, 1933.

REMARKS.—Records good except those for high-water period in September, which are poor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	762	722	762	722	642	690	706	864	762	722	1,040	1,230
2	754	714	762	714	634	698	706	847	746	746	985	1,210
3	754	706	762	714	666	698	706	838	730	746	940	1,170
4	746	746	770	714	706	698	706	838	722	754	930	1,320
5	746	779	770	714	714	698	698	830	714	910	950	2,860
6	762	779	762	714	690	690	891	830	706	910	950	4,460
7	746	796	770	714	674	706	1,120	830	706	873	940	6,060
8	746	796	762	714	682	706	1,230	822	706	830	920	6,060
9	738	788	762	706	830	706	1,320	804	706	779	910	4,960
10	722	779	762	706	838	706	1,370	796	714	762	891	4,360
11	722	762	770	698	796	706	1,370	796	706	754	882	3,660
12	714	754	779	698	779	698	1,420	788	730	762	882	3,160
13	722	738	779	706	762	698	1,420	788	738	813	873	2,860
14	714	738	779	714	738	690	1,400	779	722	1,020	864	2,660
15	714	722	770	698	730	690	1,370	770	722	1,100	891	2,460
16	722	738	762	674	722	698	1,320	762	722	1,150	950	2,360
17	722	730	762	674	714	714	1,270	762	714	1,140	985	2,360
18	722	730	754	674	706	746	1,190	796	714	1,120	985	2,260
19	722	738	754	674	698	754	1,140	779	706	1,100	1,090	2,160
20	714	738	754	674	698	738	1,080	770	698	1,120	1,320	2,060
21	714	738	746	674	690	754	1,040	762	698	1,150	1,620	2,060
22	714	730	746	674	698	762	1,010	754	706	1,190	1,870	2,060
23	706	738	746	674	690	746	985	746	714	1,190	1,780	1,960
24	706	754	746	666	682	730	950	746	730	1,190	1,620	1,960
25	706	788	738	674	674	722	930	746	738	1,230	1,550	1,870
26	706	788	730	682	674	722	910	746	746	1,270	1,480	1,870
27	706	796	730	674	682	714	891	738	746	1,300	1,400	1,870
28	706	788	730	666	674	714	882	730	746	1,300	1,340	1,780
29	698	762	730	650	-------	706	891	730	746	1,210	1,320	1,700
30	706	754	730	650	-------	706	873	738	738	1,150	1,320	1,700
31	698	-------	730	650	-------	698	-------	804	-------	1,100	1,270	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	762	698	724	May	864	730	785
November	796	706	754	June	762	698	723
December	779	730	755	July	1,300	722	1,010
January	722	650	689	August	1,870	864	1,150
February	838	634	710	September	6,060	1,170	2,620
March	762	690	713				
April	1,420	698	1,060	The year	6,060	634	974

OKLAWAHA RIVER NEAR ORANGE SPRINGS, FLA.

LOCATION.—Staff gage in sec. 28, T. 11 S., R. 24 E., a quarter of a mile downstream from Jordans Ferry and mouth of Orange Creek and 2½ miles east of Orange Springs.

RECORDS AVAILABLE.—February 1930 to September 1933.

DISCHARGE.—Maximum during year, 9,760 second-feet Sept. 9 (gage height, 11.60 feet); minimum, 741 second-feet Jan. 30, Mar. 15–17, Apr. 2, June 8, 9, 21; minimum stage, 2.40 feet Feb. 2.

1930–33: Maximum, that of Sept. 9, 1933; minimum, that in 1933; minimum stage, that of Feb. 2, 1933.

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	822	780	815	774	748	760	748	1,020	822	774	1,500	1,440
2	815	794	808	767	748	767	741	995	794	780	1,360	1,420
3	808	787	808	774	754	767	748	962	787	774	1,260	1,390
4	801	801	808	774	874	760	748	942	767	815	1,240	1,420
5	801	882	801	767	1,060	760	748	933	760	962	1,260	2,180
6	822	942	801	767	1,020	754	1,130	924	754	1,070	1,260	5,280
7	815	984	801	767	952	767	1,800	915	748	1,030	1,200	6,790
8	801	984	794	767	906	774	1,970	898	741	952	1,160	8,700
9	787	962	794	767	952	767	1,970	890	741	890	1,120	9,490
10	767	924	787	767	1,010	760	2,040	882	748	844	1,070	7,950
11	760	890	787	767	995	760	2,110	866	760	822	1,030	6,590
12	760	866	794	774	962	754	2,180	851	774	829	1,010	5,620
13	760	844	794	780	924	748	2,110	836	787	906	984	4,700
14	760	829	794	787	898	748	2,040	829	774	1,220	962	4,110
15	760	822	794	780	874	741	2,040	822	767	1,420	1,010	3,780
16	767	815	794	767	851	741	2,040	808	760	1,440	1,080	3,480
17	780	801	794	754	836	741	2,040	801	754	1,500	1,140	3,300
18	780	794	787	754	822	760	1,900	874	754	1,530	1,200	3,140
19	774	801	787	754	815	808	1,760	858	748	1,500	1,340	3,060
20	774	801	787	754	801	808	1,620	844	748	1,500	1,470	2,900
21	774	801	780	748	794	836	1,530	822	741	1,620	1,800	2,820
22	774	801	780	748	787	858	1,390	808	748	1,800	1,900	2,740
23	767	801	780	748	780	844	1,290	801	760	1,830	2,040	2,670
24	760	808	780	748	767	815	1,220	801	780	1,830	2,110	2,670
25	760	836	780	760	760	794	1,180	794	787	1,760	2,040	2,600
26	760	858	780	767	760	780	1,130	787	794	1,690	1,970	2,600
27	760	858	774	767	754	774	1,070	787	801	1,660	1,860	2,530
28	760	858	774	760	748	767	1,060	780	801	1,620	1,760	2,460
29	760	851	774	754	-------	760	1,040	780	801	1,590	1,660	2,460
30	760	822	774	741	-------	754	1,030	774	787	1,590	1,560	2,390
31	760	-------	774	748	-------	748	-------	794	-------	1,560	1,500	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	822	760	788	May	1,020	774	854
November	984	780	847	June	822	741	770
December	815	774	790	July	1,830	774	1,290
January	787	741	763	August	2,110	962	1,410
February	1,060	748	855	September	9,490	1,390	3,760
March	858	741	773				
April	2,180	741	1,480	The year	9,490	741	1,200

NORTH FORK OF BLACK CREEK NEAR MIDDLEBURG, FLA.

LOCATION.—Staff gage in sec. 28, T. 4 S., R. 24 E., about 4 miles northwest of Middleburg. Prior to Mar. 29, 1933, gage was three-eighths of a mile downstream.
DRAINAGE AREA.—207 square miles.
RECORDS AVAILABLE.—November 1931 to September 1933.
DISCHARGE.—Maximum during year, 6,720 second-feet Sept. 6 (gage height, 19.35 feet); minimum, 12 second-feet May 28–30 (gage height, 0.40 foot).
1932–33: Maximum, that of Sept. 6, 1933; minimum, 5.6 second-feet Nov. 18–22, 1931 (gage height, 0.66 foot, old gage).
REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	58	150	36	67	72	43	207	62	70	125	59
2	50	108	121	36	58	98	39	134	56	74	90	56
3	46	85	98	38	54	85	59	90	40	59	66	52
4	42	90	85	39	67	72	74	74	31	36	62	66
5	40	103	72	42	90	62	86	59	23	30	125	762
6	33	112	62	41	85	58	952	49	19	28	257	5,680
7	39	891	58	39	76	62	1,650	40	15	25	736	3,970
8	36	1,740	50	38	140	72	1,480	34	14	21	722	1,580
9	30	1,180	50	37	320	76	762	29	13	19	668	857
10	26	637	48	40	471	67	520	25	13	17	399	492
11	24	370	46	43	403	58	574	36	49	17	227	300
12	22	240	44	85	350	50	722	35	46	21	152	197
13	21	170	42	140	320	46	898	27	90	27	102	161
14	19	130	40	220	260	43	533	23	348	170	70	116
15	35	103	39	230	190	39	386	20	348	438	56	90
16	121	85	45	180	150	35	870	18	161	546	43	74
17	150	72	62	130	121	34	1,100	17	86	336	46	59
18	140	67	76	98	98	108	628	16	49	197	43	56
19	94	85	72	80	80	121	336	15	34	170	300	56
20	62	140	67	67	72	200	217	15	26	309	1,850	49
21	46	150	62	58	80	995	161	31	21	1,400	2,220	43
22	39	116	58	54	85	1,380	143	30	18	1,920	1,330	40
23	33	112	54	50	76	756	116	20	25	3,970	628	38
24	29	180	50	49	67	392	94	16	695	3,830	336	35
25	26	240	47	54	62	240	143	15	722	1,790	217	32
26	23	260	44	112	54	160	179	14	466	1,130	197	30
27	22	280	43	130	50	112	143	13	257	641	197	29
28	22	260	41	108	46	85	102	12	237	458	125	27
29	21	220	39	90	------	67	257	12	170	324	107	26
30	21	180	38	80	------	52	324	18	112	217	90	25
31	20	------	36	76	------	49	------	66	------	161	70	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	150	19	44.6	0.215	0.25
November	1,740	58	282	1.36	1.52
December	150	36	59.3	.286	.33
January	230	36	81.3	.393	.45
February	471	46	143	.691	.72
March	1,380	34	185	.894	1.03
April	1,650	39	453	2.19	2.44
May	207	12	39.0	.188	.22
June	722	13	142	.686	.77
July	3,970	17	599	2.89	3.33
August	2,220	43	376	1.82	2.10
September	5,680	25	502	2.43	2.71
The year	5,680	12	242	1.17	15.87

LAKE OKEECHOBEE BASIN

LAKE OKEECHOBEE AT ST. LUCIE CANAL, FLA.

LOCATION.—Staff gage in sec. 22, T. 40 S., R. 37 E., on east shore of Lake Okeechobee at entrance to St. Lucie Canal, 8 miles north of Canal Point. Zero of gage is at mean sea level, Okeechobee Flood Control District datum.

RECORDS AVAILABLE.—October 1931 to September 1933.

EXTREMES.—Maximum stage recorded during year, 21.1 feet Sept. 4; minimum stage, 13.0 feet Oct. 8.

1931–33: Maximum stage, that of September 1933; minimum, 11.3 feet May 17, 1932.

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

Gage height, in feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13.5	13.7	14.4	14.3	13.9	13.9	13.5	13.75	13.45	13 3	13.9	14.8
2	16.6	13.7	14.4	14.15	13.95	13.7	13.5	13.8	13.4	13 3	14.3	14.85
3	13.6	13.6	14.35	14.1	13.9	13.7	13.55	13.8	13.35	13 25	14.5	14.9
4	13.55	13.6	14.4	14.1	14.0	13.7	13.55	13.75	13.3	13 35	14.5	21.1
5	13.6	13.7	14.5	14.2	13.9	13.4	13.3	13.7	13.25	13 3	14.55	15.4
6	13.4	13.7	14.4	14.1	13.9	13.5	13.3	13.75	13.25	13 4	14.6	15.5
7	13.4	14.3	14.4	14.1	13.85	13.7	13.7	13.8	13.3	13 45	14.6	15.5
8	13.0	14.3	14.5	14.1	13.8	14.0	13.3	13.75	13.2	13 50	14.7	15.6
9	13.5	14.4	14.4	14.2	13.8	13.8	13.5	13.7	13.3	13 6	14.7	15.6
10	13.55	14.4	14.4	14.1	13.8	13.9	13.6	13.65	13.35	13 55	14.8	15.8
11	13.6	14.5	14.4	14.1	13.8	13.8	13.55	13.6	13.4	13 6	14.8	15.9
12	13.6	14.6	14.5	14.1	13.8	13.7	13.6	13.6	13.45	13 65	14.85	15.9
13	13.55	14.5	14.4	14.2	13.9	13.8	13.4	13.55	13.45	13 65	14.85	16.0
14	13.55	14.5	14.4	14.1	13.8	13.75	13.4	13.55	13.45	13 7	14.85	16.1
15	13.50	14.4	14.3	14.2	13.8	13.75	13.45	13.5	13.45	13 7	14.8	15.9
16	13.35	14.5	14.3	14.1	13.8	13.75	13.55	13.5	13.1	13.65	14.8	16.2
17	13.8	14.5	14.4	14.0	13.8	13.7	13.6	13.5	13.3	13.65	14.8	16.2
18	13.8	14.4	14.3	14.1	13.7	13.7	13.75	13.55	13.4	13.55	14.9	16.2
19	13.8	14.45	14.3	14.1	13.8	13.7	13.8	13.5	13.35	13.55	15.0	16.25
20	13.8	14.45	14.3	14.1	13.8	13.8	13.9	13.45	13.35	13.55	14.85	16.3
21	13.7	14.45	14.3	14.05	13.8	14.0	13.9	13.7	13.35	13.55	14.8	16.3
22	13.7	14.4	14.3	14.1	13.5	13.8	13.9	13.45	13.35	13.6	14.85	16.35
23	13.75	14.45	14.2	14.1	13.7	13.8	13.8	13.5	13.4	13.55	14.85	16.3
24	13.7	14.4	14.25	14.1	13.7	13.8	13.8	13.5	13.4	13.6	14.85	16.25
25	13.6	14.4	14.3	14.15	13.7	13.8	14.0	13.5	13.4	13.65	14.85	16.3
26	13.7	14.5	14.3	14.2	13.7	13.8	13.9	13.45	13.45	13.65	14.8	16.2
27	13.7	14.6	14.15	14.2	13.6	13.7	13.9	13.4	13.45	13.65	15.0	16.2
28	13.6	14.4	14.15	14.2	13.5	13.8	13.9	13.5	13.4	13.7	15.0	16.2
29	13.6	14.4	14.1	14.0	-------	13.7	13.8	13.25	13.45	13.75	15.1	16.2
30	13.65	14.45	14.2	13.9	-------	13.5	13.8	13.5	13.4	14.0	15.1	16.2
31	13.7	-------	14.3	13.95	-------	13.5	-------	13.55	-------	13.6	15.1	------

KISSIMMEE RIVER NEAR OKEECHOBEE, FLA.

LOCATION.—Staff gage in sec. 24, T. 37 S., R. 33 E., at highway bridge on State highway 8 about 10 miles west of Okeechobee. Zero of gage is at mean sea level, Okeechobee Flood Control District datum.

DRAINAGE AREA.—3,260 square miles.

RECORDS AVAILABLE.—October 1930 to September 1933.

DISCHARGE.—Maximum during year, 15,600 second-feet Sept. 9 (gage height, 29.32 feet); minimum, 299 second-feet May 30, 31 (gage height, 18.22 feet).

1930–33: Maximum, that of Sept. 9, 1933; minimum, 231 second-feet May 18, 1932 (gage height, 17.80 feet). Flood of August 1928, resulting from hurricane, reached a peak stage of 30.3 feet (discharge from extension of rating curve, 20,000 second-feet).

REMARKS.—Records good. Gage-height record and results of some discharge measurements furnished by Okeechobee Flood Control District.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,480	1,250	1,010	765	664	632	469	486	316	350	3,030	1,660
2	1,430	1,220	989	765	664	632	452	469	316	350	3,200	1,660
3	1,380	1,220	971	765	664	632	435	469	333	367	3,580	1,600
4	1,340	1,200	971	748	648	600	435	469	333	384	4,000	2,710
5	1,310	1,200	971	748	632	600	435	452	333	552	4,250	3,580
6	1,340	1,200	953	748	632	600	435	452	333	901	4,250	6,800
7	1,340	1,200	935	748	632	600	418	435	316	953	4,000	12,200
8	1,310	1,200	935	748	632	600	418	418	316	935	3,580	15,100
9	1,310	1,200	935	748	632	600	435	418	316	935	3,390	15,600
10	1,280	1,180	918	748	632	584	520	418	367	953	3,030	14,600
11	1,250	1,180	901	731	632	568	568	401	384	953	2,710	13,400
12	1,250	1,160	901	731	632	552	568	401	367	971	2,560	12,200
13	1,220	1,140	901	731	632	552	552	384	350	971	2,430	11,400
14	1,200	1,140	884	731	632	536	536	367	350	971	2,180	10,200
15	1,200	1,120	884	731	616	536	520	367	350	971	2,070	9,400
16	1,200	1,120	867	731	616	536	568	367	333	989	2,070	8,600
17	1,200	1,100	867	714	600	520	632	367	333	1,010	1,970	7,880
18	1,220	1,100	850	714	600	520	697	384	333	1,010	1,970	7,520
19	1,200	1,080	833	714	600	520	697	384	316	1,020	1,880	7,160
20	1,200	1,080	833	714	600	503	714	367	316	1,120	1,880	6,800
21	1,200	1,080	833	714	584	536	697	367	316	1,140	1,800	6,440
22	1,220	1,060	833	697	584	520	697	367	333	1,160	1,800	6,100
23	1,220	1,060	816	697	568	503	648	350	333	1,180	1,800	6,100
24	1,220	1,040	816	697	568	503	632	350	350	1,200	1,800	6,100
25	1,220	1,040	799	697	568	503	632	333	367	1,200	1,730	6,100
26	1,250	1,040	799	697	568	503	584	316	367	1,200	1,730	6,440
27	1,250	1,040	799	680	552	503	552	316	384	1,200	1,730	6,440
28	1,250	1,020	782	664	552	486	536	316	367	1,200	1,730	6,100
29	1,250	1,020	782	664	-------	486	520	316	350	1,310	1,660	6,100
30	1,250	1,010	782	664	-------	469	503	299	350	1,340	1,660	6,100
31	1,250	-------	765	664	-------	469	-------	299	-------	1,880	1,660	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,480	1,200	1,270	0.390	0.45
November	1,250	1,010	1,120	.344	.38
December	1,010	765	875	.268	.31
January	765	664	720	.221	.25
February	664	552	612	.188	.20
March	632	469	545	.167	.19
April	714	418	550	.169	.19
May	486	299	384	.118	.14
June	384	316	341	.105	.12
July	1,880	350	998	.306	.35
August	4,250	1,660	2,490	.764	.88
September	15,600	1,600	7,740	2.37	2.64
The year	15,600	299	1,470	.451	6.10

TAYLOR CREEK AT OKEECHOBEE, FLA.

LOCATION.—Staff gage in sec. 15, T. 37 S., R. 35 E., at Seaboard Air Line Railway bridge in Okeechobee. Zero of gage is at mean sea level, Okeechobee Flood Control District datum.

DRAINAGE AREA.—109 square miles.

RECORDS AVAILABLE.—December 1931 to September 1933.

DISCHARGE.—Maximum during year, 1,620 second-feet Sept. 7 (gage height, 23.40 feet); no flow Feb. 5, Apr. 7, 8, June 7, 9.

1931–33: Maximum, that of Sept. 7, 1933; no flow on several days of each year.

REMARKS.—Records poor. Gage-height record and results of discharge measurements furnished by Okeechobee Flood Control District.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	26	13	0.5	0.2	0.4	0.2	27	0.7	1.3	324	103
2	26	22	12	.4	.2	.3	.2	24	.5	1.7	560	96
3	24	18	9.6	.3	.1	.2	.1	21	.4	1.9	892	85
4	23	18	7.8	.3	.1	.2	.1	16	.3	2.3	1,030	622
5	22	21	7.0	.3	0	.1	.1	14	.2	4.0	938	1,200
6	20	40	6.2	.3	.2	.1	.1	11	.1	16	869	1,470
7	20	66	5.2	.2	.2	.3	0	9.2	0	30	823	1,620
8	19	96	4.6	.2	.2	.5	0	6.6	.1	40	777	1,500
9	18	92	4.1	.2	.2	.4	.1	5.4	0	60	709	1,220
10	18	60	3.3	.2	.2	.4	.7	3.5	.6	107	601	1,010
11	17	48	3.0	.3	.2	.4	.7	2.9	1.3	153	501	892
12	15	42	2.5	.4	.2	.3	.4	1.9	3.3	153	426	777
13	14	40	1.9	.4	.2	.3	.4	1.6	4.5	153	373	665
14	14	42	2.1	.4	.2	.3	.3	1.2	1.6	133	324	601
15	24	42	7.2	.3	.2	.2	.4	1.0	.7	115	280	501
16	37	42	12	.3	.2	.2	3.9	.8	.6	103	266	390
17	51	42	9.4	.2	.2	.5	51	.7	.5	96	253	309
18	60	42	8.0	.2	.2	.5	57	.8	.5	88	240	266
19	72	42	7.2	.2	.2	.4	51	1.1	.5	82	240	240
20	66	42	5.9	.2	.2	.8	42	.7	.5	72	228	216
21	54	42	4.3	.2	.2	.6	42	.8	.5	72	228	205
22	48	42	4.1	.2	.2	.5	48	1.1	.6	66	216	183
23	42	40	4.0	.2	.2	.5	54	.6	.9	51	216	162
24	40	40	4.7	.2	.2	.4	60	.6	1.7	69	205	143
25	37	40	3.0	.2	.2	.4	66	.4	2.0	133	205	133
26	34	37	2.7	.2	.1	.4	57	.4	1.8	133	194	124
27	32	28	2.2	.3	.1	.4	51	.3	1.3	115	183	107
28	32	15	1.6	.2	.2	.4	42	.8	1.3	115	173	96
29	30	13	1.1	.2	-------	.3	37	.9	1.1	107	163	88
30	28	13	.8	.2	-------	.3	32	1.7	1.1	133	143	78
31	28	-------	.6	.2	-------	.2	-------	1.1	-------	205	124	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	72	14	32.0	0.294	0.34
November	96	13	39.8	.365	.41
December	13	.6	5.20	.048	.06
January	.5	.2	.261	.0024	.003
February	.2	0	.179	.0016	.002
March	.8	.1	.361	.0033	.004
April	66	0	23.3	.214	.24
May	27	.3	5.13	.047	.05
June	4.5	0	.973	.0089	.01
July	205	1.3	84.2	.772	.89
August	1,030	124	410	3.76	4.34
September	1,620	78	503	4.61	5.14
The year	1,620	0	92.3	.847	11.49

ST. LUCIE CANAL AT LOCK 1, AT LAKE OKEECHOBEE, FLA.

LOCATION.—Staff gage in sec. 22, T. 40 S., R. 37 E., a quarter of a mile below Lock 1, Lake Okeechobee. Zero of gage is at mean sea level, Okeechobee Flood Control District datum.

RECORDS AVAILABLE.—April 1931 to September 1933.

DISCHARGE.—Maximum daily discharge during year, 4,600 second-feet Sept. 11; minimum, 73 second-feet Oct. 18.

1931–33: Maximum, 4,990 second-feet Apr. 1, 1931; no flow during much of period November 1931 to June 1932.

REMARKS.—Records fair subsequent to Aug. 19, poor prior to that date. An intense rainfall east of the lake on July 31 caused a summit in the canal resulting in a division of flow for the days July 31 to Aug. 2, part going into the lake and the remainder down the canal. Gage-height record and results of most discharge measurements furnished by Okeechobee Flood Control District.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,450	169	878	1,290	544	436	256	401	362	1,040	1,620	3,620
2	2,500	137	1,610	1,200	544	436	239	390	356	1,080	1,610	3,480
3	2,540	207	2,180	1,200	544	436	258	390	356	1,080	1,590	3,490
4	2,650	156	1,300	1,200	544	436	374	401	345	1,040	1,510	3,580
5	1,460	142	1,280	1,300	568	412	374	401	336	1,080	1,420	3,810
6	1,780	142	1,280	1,290	544	398	274	388	336	1,100	1,280	3,880
7	1,640	428	1,140	1,290	576	398	274	388	508	1,140	1,240	3,860
8	1,360	945	1,130	1,290	438	412	285	392	508	999	1,280	3,860
9	1,460	925	1,100	450	412	412	516	326	508	1,100	1,250	4,010
10	1,500	778	1,100	80	468	412	591	312	372	1,160	1,250	4,060
11	960	142	1,100	423	468	412	515	323	411	1,160	1,250	4,600
12	1,030	569	1,160	620	468	398	582	336	588	1,160	1,230	4,140
13	670	378	1,160	788	468	398	452	336	273	1,160	1,230	4,440
14	313	378	2,100	788	474	337	436	358	93	1,120	1,210	4,520
15	296	350	1,790	1,280	430	374	436	444	523	1,100	1,210	3,600
16	282	350	878	780	468	374	414	385	670	970	1,210	3,660
17	166	1,110	878	594	448	374	398	388	336	618	1,210	3,540
18	73	2,220	830	804	448	374	408	388	508	781	1,210	4,050
19	166	2,320	775	792	412	324	408	388	508	781	3,570	3,980
20	237	2,320	820	1,520	360	324	408	388	508	798	3,790	4,020
21	119	2,320	1,200	1,440	502	324	324	382	349	798	3,860	4,050
22	572	2,320	1,240	1,440	502	360	317	372	206	798	3,940	4,350
23	294	2,300	1,230	1,440	474	354	452	372	564	798	3,740	4,380
24	222	2,280	2,280	500	502	302	424	372	752	798	3,680	4,380
25	138	1,600	1,860	1,200	540	314	424	372	730	711	3,720	4,380
26	170	1,920	1,290	650	436	302	410	364	536	711	3,600	4,380
27	216	1,720	1,420	1,480	412	332	414	446	712	685	3,600	4,380
28	196	1,750	1,560	965	454	288	414	485	1,060	685	3,600	4,440
29	163	1,580	1,510	569	-------	274	426	384	1,040	668	3,600	4,440
30	182	1,560	547	552	-------	274	401	382	1,040	668	3,660	4,440
31	176	-------	1,390	754	-------	250	-------	372	-------	1,710	3,580	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	2,650	73	838	May	485	312	381
November	2,320	137	1,120	June	1,060	93	513
December	2,280	547	1,290	July	1,710	618	952
January	1,520	80	967	August	3,940	1,210	2,310
February	576	360	480	September	4,600	3,480	4,060
March	436	250	363				
April	591	239	396	The year	4,600	73	1,140

FISHEATING CREEK AT PALMDALE, FLA.

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

DRAINAGE AREA.—305 square miles.

RECORDS AVAILABLE.—April 1931 to September 1933.

DISCHARGE.—Maximum during year, 6,460 second-feet Sept. 6 (gage height, 8.60 feet); no flow May 20 to June 17; minimum gage height, 1.44 feet June 8, 9. 1931–33: Maximum, that of Sept. 6, 1933; no flow May 20 to June 17, 1933, and during much of period Nov. 29, 1931, to May 25, 1932.

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

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	260	143	66	9.0	3.4	1.6	8.2	48	0	.3	225	420
2	225	136	62	8.6	3.3	1.8	6.0	38	0	.3	1,150	395
3	210	129	55	8.4	3.3	1.4	4.0	32	0	.4	1,550	370
4	195	123	52	8.0	3.8	1.2	3.1	24	0	1.0	1,270	480
5	180	123	48	7.8	4.1	1.0	2.2	17	0	4.2	1,090	675
6	195	123	45	7.6	3.8	.9	1.6	12	0	30	920	5,280
7	195	123	42	7.0	3.5	1.1	2.7	7.2	0	55	720	5,660
8	195	129	41	6.6	3.1	2.3	2.6	4.0	0	78	550	4,580
9	210	136	39	7.0	2.7	5.6	2.3	2.3	0	92	450	3,390
10	210	129	35	6.8	2.2	9.6	3.2	1.5	0	92	395	2,900
11	180	129	32	6.6	1.9	14	3.0	1.0	0	92	345	2,560
12	170	129	30	6.0	1.8	15	4.4	.7	0	82	420	2,260
13	170	136	28	4.8	1.6	16	9.0	.4	0	82	395	1,810
14	170	143	26	4.7	1.4	16	18	.2	0	87	370	1,550
15	170	143	25	4.1	1.1	14	28	.1	0	82	370	1,340
16	195	136	23	3.8	1.0	15	62	.1	0	70	420	1,210
17	260	129	22	3.8	.9	17	92	.1	0	66	395	1,030
18	820	129	21	3.4	.8	15	87	.2	.2	62	345	975
19	1,340	117	20	3.3	.8	11	82	.1	.4	58	345	975
20	1,090	117	19	3.3	.8	7.8	87	0	.4	58	450	920
21	720	112	18	3.3	.7	36	112	0	.3	66	870	820
22	550	106	16	3.4	.7	37	152	0	.4	74	820	720
23	450	96	16	4.0	.6	34	152	0	.5	92	590	675
24	370	92	15	4.6	.6	32	143	0	.8	112	550	590
25	300	87	15	5.0	.5	28	143	0	.8	136	630	480
26	260	87	14	5.0	.5	27	112	0	.9	143	720	450
27	240	82	14	5.4	.4	23	96	0	.8	152	720	420
28	210	78	13	5.4	.5	19	82	0	.7	143	675	370
29	195	74	12	4.8	------	16	70	0	.6	143	590	420
30	180	70	11	4.2	------	14	58	0	.4	143	515	345
31	152	------	9.9	3.6	------	9.9	------	0	------	180	450	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,340	152	331	1.08	1.24
November	143	70	116	.380	.42
December	66	9.9	28.5	.093	.11
January	9.0	3.3	5.46	.018	.02
February	4.1	.4	1.78	.0058	.006
March	37	.9	14.3	.047	.05
April	152	1.6	54.3	.178	.20
May	48	0	6.09	.020	.02
June	.9	0	.24	.00079	.0008
July	180	.3	79.9	.262	.30
August	1,550	225	623	2.04	2.35
September	5,660	345	1,470	4.82	5.38
The year	5,660	0	227	.744	10.10

INDIAN PRAIRIE CANAL NEAR LAKEPORT, FLA.

LOCATION.—Staff gage in T. 39 S., R. 33 E., 4 miles upstream from Lak chobee, 8 miles southeast of Brighton, and 12 miles northeast of La Zero of gage is at mean sea level, Okeechobee Flood Control District da
DRAINAGE AREA.—320 square miles.
RECORDS AVAILABLE.—April 1931 to February 1933 (discontinued).
DISCHARGE.—Maximum during period, 161 second-feet Oct. 1 (gage 16.30 feet); minimum, 4.1 second-feet Feb. 9–15 (gage height, 14.34 fe 1931-33: Maximum, 1,140 second-feet Sept. 15–16, 1932 (gage heigh feet); minimum, 0.9 second-foot May 7–18, 1932 (gage heignt, 14.06 f
REMARKS.—Records fair. Gage-height record and results of discharge m ments furnished by Okeechobee Flood Control District.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Day	Oct.	Nov.	Dec.	Jan
1	161	35	16	6.9	4.8	16	98	31	11	7.
2	125	31	14	7.2	4.8	17	161	29	10	7.
3	116	30	14	6.9	4.8	18	143	28	9.5	7.
4	112	29	13	6.6	4.8	19	116	26	9.5	7.
5	98	34	12	6.6	4.8	20	112	25	8.6	7.
6	94	42	12	6.3	4.6	21	98	24	8.6	7.
7	89	60	12	6.0	4.4	22	98	19	8.6	7.
8	84	56	12	6.0	4.4	23	84	18	7.8	7.
9	84	64	12	5.4	4.1	24	76	17	7.8	6.
10	80	56	12	5.4	4.1	25	72	18	7.8	6.
11	76	48	12	4.8	4.1	26	68	18	7.8	6.
12	76	40	12	4.8	4.1	27	54	18	7.2	6.
13	76	37	12	4.8	4.1	28	50	17	7.2	5.
14	72	34	11	4.8	4.1	29	47	17	7.2	5.
15	72	32	11	6.6	4.1	30	44	17	7.2	5.
						31	41		7.2	4.

Month	Maximum	Minimum	Mean	Per square mile	R
October	161	41	89.6	0.280	
November	64	17	31.7	.099	
December	16	7.2	10.3	.032	
January	7.8	4.8	6.4	.020	
February 1–15	4.8	4.1	4.4	.014	

PEACE CREEK BASIN

PEACE CREEK AT ARCADIA, FLA.

LOCATION.—Water-stage recorder in sec. 26, T. 37 S., R. 24 E., at highway bridge on State highway 18, half a mile west of Arcadia.

DRAINAGE AREA.—1,330 square miles.

RECORDS AVAILABLE.—April 1931 to September 1933.

DISCHARGE.—Maximum during year, 36,200 second-feet Sept. 9 (gage height, 17.67 feet); minimum, 75 second-feet May 16 (gage height, −0.10 foot).

1931–33: Maximum, that of Sept. 9, 1933; minimum, 56 second-feet May 13–17, 1932; minimum gage height, −0.10 foot May 16, 1933.

Maximum known stage, 18.3 feet 1912 (estimated discharge, 43,000 second-feet).

REMARKS.—Records good below 1,000 second-feet, excellent above.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	530	226	132	106	100	108	85	135	512	512	1,420	1,670
2	512	214	132	108	101	124	85	123	450	565	1,470	1,570
3	456	196	129	110	104	154	95	117	336	478	1,670	1,520
4	422	186	129	112	109	151	88	112	283	495	2,100	1,620
5	387	179	124	113	120	146	84	109	253	855	2,480	4,760
6	366	175	122	115	228	134	82	106	218	1,520	2,320	8,200
7	348	175	122	115	246	134	116	104	180	2,370	2,050	12,900
8	348	173	120	113	228	122	110	100	152	3,200	1,730	27,300
9	333	173	119	113	194	119	128	96	152	3,630	1,470	34,700
10	300	164	117	115	173	120	140	93	177	3,930	1,240	29,500
11	276	161	115	115	162	122	173	89	206	3,680	1,060	23,700
12	253	159	116	116	161	117	270	85	428	3,140	945	19,000
13	244	161	116	119	157	115	286	84	460	2,750	922	16,000
14	235	152	116	120	154	109	268	81	585	2,480	832	14,200
15	230	151	113	120	146	104	237	79	1,080	2,320	725	12,700
16	273	144	113	120	134	97	298	77	1,520	2,260	788	11,400
17	442	143	113	119	129	105	381	83	1,670	2,150	810	10,800
18	605	143	113	116	126	109	478	102	1,520	1,990	810	9,920
19	685	143	108	113	119	109	450	93	1,150	1,880	855	8,800
20	645	140	108	110	115	105	360	96	810	2,210	968	7,750
21	585	134	108	109	109	116	309	93	585	2,210	1,320	6,760
22	565	134	109	102	105	108	339	87	495	2,210	1,520	5,510
23	530	134	108	104	102	123	354	87	478	2,370	1,670	4,510
24	478	132	108	104	100	138	321	84	565	2,530	2,050	4,390
25	432	132	108	104	97	134	276	83	605	2,530	2,640	3,720
26	390	138	109	104	96	123	239	81	625	2,530	2,640	3,200
27	342	136	110	104	94	110	214	80	530	2,370	2,530	2,860
28	309	129	109	104	96	101	186	82	450	2,050	2,420	2,640
29	278	129	108	102	-------	96	161	97	412	1,730	2,260	2,420
30	258	132	106	101	-------	93	148	256	412	1,520	2,050	2,260
31	242	-------	106	100	-------	88	-------	512	-------	1,370	1,880	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	685	230	397	0.298	0.34
November	226	129	156	.117	.13
December	132	106	115	.086	.10
January	120	100	111	.083	.10
February	246	94	136	.102	.11
March	154	88	117	.088	.10
April	478	82	225	.169	.19
May	512	77	113	.085	.10
June	1,670	152	577	.434	.48
July	3,930	478	2,120	1.59	1.83
August	2,640	725	1,600	1.20	1.38
September	34,700	1,520	9,880	7.43	8.29
The year	34,700	77	1,290	.970	13.15

KISSENGEN SPRING NEAR BARTOW, FLA.

LOCATION.—In sec. 28, T. 30 S., R. 25 E., about 4½ miles southeast of Bartow.
RECORDS AVAILABLE.—Discharge measurements from March 1932 to September 1933. Single measurements only during 1917, 1929–31.
REMARKS.—Monthly discharge measurements made from footbridge at outlet of pool.

Discharge, in second-feet, 1932–33

Oct. 5	30.8	Feb. 17	27.9	June 7	31.0
Nov. 18	29.9	Mar. 10	28.0	July 10	29.5
Dec. 7	23.8	Apr. 6	24.6	Aug. 3	33.0
Jan. 6	24.1	May 3	24.7		

ALAFIA RIVER BASIN

ALAFIA RIVER AT LITHIA, FLA.

LOCATION.—Staff gage in sec. 16, T. 30 S., R. 21 E., at Marvinia Bridge, 1 mile northwest of Lithia.
DRAINAGE AREA.—336 square miles.
RECORDS AVAILABLE.—January to September 1933.
DISCHARGE.—Maximum during period (estimated), 25,000 second-feet Sept. 7 (gage height, 25.6 feet); minimum, 10 second-feet May 27 (gage height, 0.50 foot).
REMARKS.—Records good between 200 and 3,000 second-feet, fair below and poor above. Discharge interpolated Feb. 20 and estimated Sept. 5–10.

Discharge, in second-feet, 1932–33

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	------	75	131	60	72	195	502	299	251
2	------	69	155	60	66	187	519	283	219
3	------	72	131	57	60	187	519	251	187
4	78	123	115	57	54	139	845	315	203
5	78	299	101	57	48	115	1,290	366	4,900
6	75	283	85	48	45	80	1,420	349	21,000
7	72	251	101	81	42	54	1,350	468	23,600
8	72	163	131	104	42	45	1,330	468	14,800
9	69	155	139	107	42	72	1,040	366	6,400
10	69	131	131	383	37	366	696	332	4,400
11	69	123	115	864	35	383	485	299	2,080
12	69	115	97	883	30	624	1,420	283	1,570
13	69	107	81	864	25	1,480	3,020	267	1,140
14	78	97	75	468	25	1,830	2,510	219	1,020
15	78	91	72	315	22	1,440	2,330	203	845
16	75	85	63	349	25	1,200	1,680	187	660
17	72	81	63	902	42	826	1,040	171	642
18	69	78	91	769	45	624	826	219	588
19	66	72	94	642	51	332	769	203	788
20	63	70	91	451	42	235	1,240	203	714
21	60	69	283	267	35	187	1,440	332	642
22	60	69	366	219	32	203	1,530	315	642
23	60	66	332	195	32	400	1,120	366	845
24	57	60	235	155	25	588	732	502	980
25	57	57	187	131	20	642	660	788	769
26	63	57	139	123	14	451	519	788	588
27	72	57	123	101	10	366	553	732	553
28	72	60	104	91	12	349	642	642	502
29	72	------	235	88	195	642	570	570	434
30	69	------	85	81	203	485	451	468	349
31	72	------	75	------	203	------	366	315	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
January 4–31	78	57	69.1	0.206	0.21
February	299	57	108	.321	.33
March	366	63	136	.405	.47
April	902	48	299	.890	.99
May	203	10	52.6	.157	.13
June	1,830	45	491	1.46	1.68
July	3,020	366	1,080	3.21	3.70
August	788	171	373	1.11	1.28
September	23,600	187	3,080	9.17	10.23

HILLSBORO RIVER BASIN

SULPHUR SPRING AT TAMPA, FLA.

LOCATION.—In sec. 25, T. 28 S., R. 18 E., at Sulphur Springs, in Tampa.
RECORDS AVAILABLE.—Discharge measurements from February 1931 to September 1933. Single measurements only during 1917, 1929–30.

Discharge measurements, in second-feet, 1932–33

Oct. 4	26.6	Feb. 15	37.7	June 5	40.6
Nov. 16	38.2	Mar. 8	41.5	July 6	43.5
Dec. 8	38.7	Apr. 4	44.9	Aug. 2	82.6
Jan. 3	39.6	May 4	56.8		

WEEKIWACHEE RIVER BASIN

WEEKIWACHEE SPRING NEAR BROOKSVILLE, FLA.

LOCATION.—In sec. 2, T. 23 S., R. 17 E., at head of Weekiwachee River, about 12 miles southwest of Brooksville.
RECORDS AVAILABLE.—Discharge measurements from February 1931 to September 1933. Single measurements only during 1917, 1929–30.

Discharge measurements, in second-feet, 1932–33

Oct. 4	108	Feb. 14	106	June 5	108
Nov. 15	131	Mar. 7	118	July 6	125
Dec. 9	115	Apr. 4	120	Aug. 1	148
Jan. 3	121	May 4	130		

WITHLACOOCHEE RIVER BASIN

WITHLACOOCHEE RIVER NEAR DADE CITY, FLA.

LOCATION.—Staff gage in sec. 32, T. 24 S., R. 22 E., at Lanier Bridge, 4 miles east of Dade City.
DRAINAGE AREA.—558 square miles.
RECORDS AVAILABLE.—February 1930 to March 1933 (discontinued).
DISCHARGE.—Maximum during period, 248 second-feet Nov. 12–14 (gage height, 8.82 feet); minimum, 6.8 second-feet Jan. 11, 12 (gage height, 5.18 feet).
1930–33: Maximum, 1,960 second-feet Apr. 2, 1930 (gage height, 12.35 feet); minimum, 1.0 second-foot May 17–20, 1932; minimum gage height, 3.90 feet May 18, 1932.
REMARKS.—Records poor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	86	7.0	43	8.2	8.2	39	16	22	186	17	8.8	90	27
2	74	7.0	43	8.0	8.4	39	17	20	172	16	9.0	86	27
3	68	7.0	39	8.0	11	35	18	18	150	15	9.0	83	29
4	66	8.0	35	8.0	13	35	19	17	140	14	9.0	74	31
5	58	9.4	35	8.0	14	31	20	15	115	13	9.0	68	48
6	56	11	31	7.8	19	31	21	13	100	13	9.4	63	68
7	53	35	31	7.8	27	31	22	11	93	12	9.8	58	86
8	48	68	29	7.4	43	31	23	10	83	12	9.8	53	107
9	41	100	27	7.2	58	31	24	10	80	11	9.4	48	123
10	35	140	26	7.0	83	29	25	9.0	74	11	9.0	43	140
11	31	200	24	6.8	93	27	26	8.8	66	10	9.0	39	140
12	27	248	22	6.8	100	27	27	8.6	60	9.8	9.0	37	140
13	26	248	20	8.0	100	26	28	8.2	58	9.0	9.0	37	123
14	24	248	19	8.0	100	26	29	7.8	50	8.8	8.8	-------	107
15	24	216	19	8.4	93	27	30	7.4	46	8.4	8.4	-------	100
							31	7.0	-------	8.3	8.2	-------	93

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	86	7.0	29.3	0.053	0.06
November	248	7.0	101	.181	.20
December	43	8.3	20.4	.037	.04
January	9.8	6.8	8.4	.015	.02
February	100	8.2	55.3	.099	.10
March	140	26	59.8	.107	.12

WITHLACOOCHEE RIVER AT TRILBY, FLA.

LOCATION.—Staff gage in sec. 22, T. 23 S., R. 21 E., at highway bridge 1 mile north of Trilby.

DRAINAGE AREA.—780 square miles (revised).

RECORDS AVAILABLE.—August 1928 to February 1929, February 1930 to September 1933.

DISCHARGE.—Maximum during year, 8,300 second-feet Sept. 12 (gage height, 20.18 feet); minimum, 16 second-feet Oct. 30, June 8–10; minimum gage height, −0.28 foot June 10.

1928–29, 1930–33: Maximum, that of Sept. 12, 1933; minimum, 11 second-feet Apr. 29, May 14–17, 22–24, 1932 (gage height, −0.48 foot).

REMARKS.—Records fair below 150 second-feet and good above, except for September, when results are fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	171	19	153	23	22	82	112	343	35	343	1,090	564
2	162	21	135	23	22	78	108	332	31	354	875	590
3	144	23	126	23	22	78	108	332	27	365	950	603
4	135	23	117	23	24	74	108	310	24	376	935	785
5	126	27	104	22	27	65	104	277	22	387	890	1,050
6	122	39	92	22	31	59	100	257	20	409	860	1,570
7	112	54	85	18	31	59	100	227	18	398	845	2,910
8	104	74	82	18	33	56	92	207	16	387	830	5,060
9	96	100	74	17	35	54	85	180	16	365	815	6,050
10	78	112	68	17	37	54	85	162	16	343	815	7,580
11	74	126	65	18	39	49	88	135	17	332	785	8,120
12	68	135	59	18	39	46	92	108	18	365	725	8,300
13	59	153	56	18	54	44	85	88	33	409	669	7,940
14	54	162	54	19	71	39	82	71	44	564	642	7,760
15	49	180	49	23	85	37	78	59	56	800	616	7,220
16	44	217	46	22	92	35	96	49	65	920	603	6,080
17	42	237	44	22	100	35	117	44	71	905	603	6,050
18	39	267	42	21	108	35	153	39	88	875	603	5,360
19	35	277	39	20	108	35	171	37	126	860	616	4,970
20	33	288	37	19	112	35	189	33	162	890	616	4,800
21	31	288	35	19	108	39	198	29	198	970	629	4,510
22	29	277	33	19	108	46	217	27	227	1,070	629	4,240
23	24	267	33	19	104	54	247	24	267	1,150	629	3,930
24	22	267	31	20	100	54	277	23	321	1,200	616	3,650
25	20	247	29	20	92	56	299	22	343	1,280	590	3,400
26	18	237	27	20	85	65	332	21	365	1,300	577	3,150
27	17	217	27	21	85	71	343	20	365	1,330	564	2,910
28	19	207	26	22	82	85	365	19	354	1,330	552	2,780
29	17	189	24	22	-------	92	365	20	343	1,280	552	2,640
30	16	162	24	22	-------	104	365	24	343	1,220	552	2,470
31	18	-------	23	22	-------	108	-------	31	-------	1,150	552	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	171	16	63.8	0.082	0.09
November	288	19	163	.209	.23
December	153	23	59.3	.076	.09
January	23	17	20.4	.026	.03
February	112	22	66.3	.085	.09
March	108	35	58.8	.075	.09
April	365	78	172	.221	.25
May	343	19	115	.147	.17
June	365	16	134	.172	.19
July	1,330	332	772	.990	1.14
August	1,090	552	704	.903	1.04
September	8,300	564	4,250	5.45	6.08
The year	8,300	16	546	.700	9.49

WITHLACOOCHEE RIVER NEAR HOLDER, FLA.

LOCATION.—Water-stage recorder in sec. 19, T. 17 S., R. 20 E., at Stokes Ferry bridge, 4½ miles northeast of Holder. Zero of gage is 27.59 feet above mean sea level.

DRAINAGE AREA.—1,660 square miles.

RECORDS AVAILABLE.—August 1928 to February 1929, August 1931 to September 1933.

DISCHARGE.—Maximum during year, 5,860 second-feet Sept. 25–27; maximum gage height, 11.17 feet Sept. 26; minimum, 144 second-feet Feb. 1.

1928–29, 1931–33: Maximum that of Sept. 25–27, 1933; maximum gage height, 11.26 feet Oct. 16, 1928; minimum, that of Feb. 1, 1933.

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	393	a 226	410	226	147	315	240	427	219	262	1,440	1,370
2	377	240	410	205	153	345	240	436	226	270	1,480	1,340
3	377	a 233	410	205	180	353	233	436	212	272	1,480	1,310
4	385	226	410	205	219	361	226	436	219	300	1,510	1,340
5	385	a 236	393	212	226	345	226	427	219	330	1,510	1,920
6	402	a 245	393	212	198	338	330	418	205	338	1,510	2,980
7	393	255	377	219	198	369	427	410	184	361	1,510	3,670
8	a 382	a 278	361	219	226	369	418	402	191	377	1,510	3,670
9	a 372	300	345	212	233	369	418	393	177	410	1,480	3,590
10	361	a 311	338	205	212	353	472	393	191	436	1,510	3,510
11	a 353	322	322	191	212	330	481	385	219	453	1,510	3,430
12	345	a 315	315	198	219	308	510	377	240	500	1,510	3,360
13	a 342	a 307	300	212	212	292	481	377	240	574	1,480	3,360
14	338	300	285	226	212	285	472	377	248	a 692	1,440	3,430
15	a 323	308	270	219	212	262	462	377	262	810	1,480	3,510
16	a 307	315	248	198	212	240	481	377	255	a 835	1,480	3,760
17	292	308	255	205	205	240	472	361	262	860	1,480	4,140
18	a 277	300	255	219	212	233	462	361	262	890	1,510	4,340
19	262	322	240	219	205	240	444	361	255	920	1,650	4,580
20	a 248	330	248	219	205	262	436	345	240	980	1,800	4,840
21	233	338	248	219	198	322	418	315	226	1,040	1,800	5,140
22	a 224	338	262	205	212	308	410	308	212	1,100	1,800	5,480
23	a 214	330	262	191	219	292	410	285	226	1,190	1,760	5,660
24	205	345	262	184	233	278	402	255	240	a 1,220	1,720	5,660
25	a 194	369	262	191	240	285	402	240	233	1,250	1,680	5,860
26	184	385	240	184	248	278	410	212	240	a 1,280	1,680	5,860
27	a 175	377	240	184	226	262	402	205	255	1,310	1,680	5,860
28	205	369	233	184	233	262	402	212	240	a 1,340	1,610	5,660
29	a 207	385	233	176	-------	248	410	212	240	a 1,370	1,550	5,660
30	a 210	393	248	157	-------	226	427	219	248	1,400	1,510	5,480
31	212	-------	248	148	-------	226	-------	212	-------	a 1,420	1,440	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	402	175	296	0.178	0.21
November	393	226	310	.187	.21
December	410	233	301	.181	.21
January	226	148	202	.122	.14
February	248	147	211	.127	.13
March	369	226	297	.179	.21
April	510	226	401	.242	.27
May	436	205	340	.205	.24
June	262	177	230	.139	.16
July	1,420	262	800	.482	.56
August	1,800	1,440	1,560	.940	1.08
September	5,860	1,310	3,990	2.40	2.68
The year	5,860	147	744	.448	6.10

a Interpolated.

BLUE SPRINGS NEAR DUNNELLON, FLA.

LOCATION.—Water-stage recorder in sec. 12, T. 16 S., R. 18 E., 4 miles northeast of Dunnellon prior to Apr. 1, staff gage thereafter.

RECORDS AVAILABLE.—Discharge measurements from February 1931 to September 1933. Single measurements only during 1917, 1929–30.

REMARKS.—Discharge measurements made at highway bridge 5 miles below springs. Measured discharge is practically all spring flow, as surface run-off is negligible except after heavy rains.

Discharge measurements, in second-feet, 1932–33

Oct. 3	487	Feb. 9	534	June 5	587
Nov. 15	520	Mar. 7	534	July 7	567
Dec. 9	513	Apr. 4	600	Aug. 1	591
Jan. 3	500	May 5	636	Sept. 2	692

SUWANNEE RIVER BASIN

SUWANNEE RIVER NEAR BENTON, FLA.

LOCATION.—Chain gage in sec. 4, T. 1 N., R. 16 E., at highway bridge known as Turners Bridge, about 6 miles northwest of Benton and 13 miles east of Jasper.

DRAINAGE AREA.—About 1,580 square miles. Watershed in Okeefenokee Swamp indeterminate.

RECORDS AVAILABLE.—December 1931 to September 1933.

DISCHARGE.—Maximum during year, 9,440 second-feet Feb. 14, 15 (gage height, 20.99 feet); minimum, 14 second-feet July 8 (gage height, 1.42 feet).

1932–33: Maximum, that of Feb. 14, 15, 1933; minimum, 0.4 second-foot May 18, 1932 (gage height, 1.04 feet).

REMARKS.—Records excellent except those under 300 second-feet, which are good. Discharge interpolated June 2.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,240	1,200	1,960	824	3,010	7,020	2,840	2,280	331	49	98	133
2	5,920	1,330	1,960	756	3,120	6,730	2,760	2,100	297	42	90	206
3	5,680	1,330	1,920	756	3,400	6,500	2,660	1,960	263	38	85	212
4	5,480	1,400	1,820	756	3,690	6,240	2,700	1,820	229	35	81	246
5	5,120	1,440	1,750	722	4,250	6,070	2,660	1,680	202	32	73	433
6	4,720	1,440	1,680	688	4,600	5,880	2,800	1,580	171	27	73	1,030
7	4,370	1,440	1,610	722	4,960	5,680	3,080	1,500	152	27	77	1,230
8	3,880	1,440	1,610	688	5,440	5,480	3,080	1,400	141	14	98	1,500
9	3,800	1,470	1,470	756	6,120	5,240	3,010	1,330	125	22	144	1,750
10	3,120	1,440	1,440	960	6,730	4,880	3,180	1,270	100	22	138	1,860
11	2,560	1,440	1,370	994	7,620	4,600	3,260	1,160	96	24	108	1,820
12	2,450	1,500	1,330	1,030	8,670	4,220	3,840	1,060	88	24	108	1,720
13	2,310	1,470	1,270	1,580	9,170	3,910	4,030	960	136	22	108	1,540
14	2,100	1,470	1,230	2,170	9,440	3,580	4,060	858	125	30	103	1,400
15	1,890	1,470	1,160	2,380	9,440	3,290	4,220	790	174	64	98	1,270
16	1,780	1,470	1,160	2,480	9,170	2,980	4,640	722	155	60	103	1,130
17	1,750	1,470	1,130	2,590	8,910	2,800	4,880	654	127	81	90	1,060
18	1,720	1,440	1,100	2,700	8,670	2,660	4,960	620	103	69	103	994
19	1,750	1,500	1,060	2,760	8,450	2,520	5,000	586	103	56	138	926
20	1,720	1,500	1,060	2,800	8,250	2,560	4,920	586	90	69	263	926
21	1,720	1,470	1,030	2,800	8,250	2,760	4,760	518	77	69	433	892
22	1,680	1,470	994	2,800	8,070	2,730	4,560	450	77	64	433	824
23	1,640	1,470	960	2,760	7,910	2,730	4,220	433	75	81	382	790
24	1,580	1,470	960	2,730	7,910	2,870	3,950	416	96	122	314	756
25	1,500	1,540	926	2,730	7,760	2,940	3,620	348	71	149	280	722
26	1,440	1,750	926	2,940	7,620	3,010	3,180	365	88	155	246	654
27	1,400	1,920	892	2,980	7,480	3,040	2,980	314	75	161	229	620
28	1,330	1,960	858	2,980	7,230	3,040	2,730	297	66	155	199	586
29	1,230	2,000	858	3,040	-------	3,040	2,590	263	58	149	155	518
30	1,160	2,000	824	3,040	-------	3,010	2,420	297	54	138	155	518
31	1,130	-------	790	3,040	-------	2,940	-------	348	-------	133	149	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,240	1,130	2,710	1.71	1.97
November	2,000	1,200	1,520	.962	1.07
December	1,960	790	1,260	.798	.92
January	3,040	688	1,970	1.25	1.44
February	9,440	3,010	6,980	4.42	4.60
March	7,020	2,520	4,030	2.55	2.94
April	5,000	2,420	3,590	2.27	2.53
May	2,280	263	934	.591	.68
June	331	54	132	.084	.09
July	161	14	70.4	.045	.05
August	433	73	166	.105	.12
September	1,860	133	942	.596	.66
The year	9,440	14	1,990	1.26	17.07

SUWANNEE RIVER AT WHITE SPRINGS, FLA.

LOCATION.—Water-stage recorder in sec. 7, T. 2 S., R. 16 E., at highway bridge on United States highway 41, 1 mile southeast of White Springs.

DRAINAGE AREA.—About 1,990 square miles (revised). Watershed in Okeefenokee Swamp indeterminate.

RECORDS AVAILABLE.—May 1906 to December 1908; February 1927 to September 1933.

DISCHARGE.—Maximum during year, 10,200 second-feet Feb. 17, 18; maximum gage height, 28.97 feet Feb. 17; minimum, 84 second-feet July 12 (gage height, 2.43 feet).

1906–8, 1927–32: Maximum, 20,600 second-feet Sept. 30, Oct. 1, 1928 (gage height, 33.9 feet, old gage); minimum, 4.8 second-feet Nov. 15, 1931; minimum gage height, 1.72 feet May 7–17, 1932, old gage.

REMARKS.—Records excellent except those for August, September, and those estimated for Apr. 6–20, May 14 to June 7, which are good, and those estimated for Dec. 17 to Jan. 11, Mar. 21–26, June 9–14, Sept. 5–24, which are fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,690	1,560	2,220	915	3,260	8,330	3,260	2,740	349	92	152	223
2	7,110	1,700	2,180	892	3,290	8,100	3,180	2,520	334	91	133	250
3	6,610	1,630	2,110	882	3,520	7,780	3,110	2,330	313	88	120	286
4	6,140	1,630	2,040	877	4,070	7,470	3,040	2,180	288	88	116	306
5	5,720	1,630	1,960	854	4,660	7,070	3,040	2,040	258	88	122	548
6	5,340	1,670	1,890	826	4,810	6,740	3,240	1,890	240	87	124	930
7	4,890	1,670	1,810	849	5,000	6,450	3,460	1,780	222	87	128	1,430
8	4,440	1,630	1,740	831	6,140	6,220	3,460	1,670	200	108	145	1,830
9	3,960	1,630	1,670	932	7,730	5,880	3,440	1,560	202	192	162	2,130
10	3,590	1,630	1,600	1,010	7,960	5,530	3,620	1,430	190	130	177	2,430
11	3,220	1,600	1,530	1,030	8,140	5,190	3,850	1,330	184	90	166	2,520
12	2,920	1,600	1,460	1,070	8,470	4,810	4,260	1,200	179	85	152	2,560
13	2,660	1,600	1,390	1,460	8,970	4,480	4,400	1,100	204	98	154	2,300
14	2,410	1,600	1,360	2,520	9,510	4,110	4,520	985	226	101	149	2,120
15	2,180	1,600	1,330	2,700	9,890	3,780	4,780	896	256	183	137	1,860
16	2,040	1,600	1,260	2,740	10,100	3,440	5,220	828	250	306	128	1,620
17	2,000	1,560	1,240	2,850	10,200	3,220	5,500	760	211	221	154	1,440
18	1,960	1,560	1,220	3,000	10,200	3,000	5,720	692	190	190	175	1,300
19	1,890	1,600	1,180	3,000	10,100	2,890	5,920	638	181	185	242	1,160
20	1,890	1,630	1,150	3,040	9,960	3,110	6,020	612	170	168	348	1,040
21	1,890	1,630	1,120	3,040	9,770	3,270	5,990	586	139	139	457	1,010
22	1,850	1,600	1,100	3,040	9,570	3,250	5,610	532	126	150	550	970
23	1,780	1,600	1,070	3,000	9,450	3,270	5,230	475	120	236	502	883
24	1,740	1,560	1,050	2,960	9,270	3,420	4,850	446	154	215	424	840
25	1,670	1,600	1,030	3,070	9,090	3,530	4,480	416	133	223	380	760
26	1,600	2,040	1,000	3,440	8,920	3,650	4,030	390	119	228	338	710
27	1,530	2,330	990	3,400	8,770	3,660	3,660	370	114	223	306	660
28	1,430	2,300	965	3,330	8,520	3,590	3,330	334	104	219	276	610
29	1,330	2,260	955	3,330	-------	3,550	3,110	324	96	208	240	574
30	1,260	2,260	945	3,330	-------	3,440	2,920	338	96	190	217	538
31	1,200	-------	915	3,290	-------	3,370	-------	359	-------	170	217	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,690	1,200	3,090	1.55	1.79
November	2,330	1,560	1,720	.864	.96
December	2,220	915	1,400	.704	.81
January	3,440	826	2,180	1.10	1.27
February	10,200	3,260	7,830	3.93	4.09
March	8,330	2,890	4,700	2.36	2.72
April	6,020	2,920	4,210	2.12	2.36
May	2,740	324	1,090	.548	.63
June	349	96	195	.098	.11
July	306	85	157	.079	.09
August	550	116	229	.115	.13
September	2,520	223	1,190	.598	.67
The year	10,200	85	2,290	1.15	15.63

SUWANNEE RIVER AT ELLAVILLE, FLA.

LOCATION.—Water-stage recorder in sec. 24, T. 1 S., R. 11 E., at old highway bridge at Ellaville, 200 feet above Seaboard Air Line Railway bridge and 200 feet below mouth of Withlacoochee River. Zero of gage is 27.70 feet above mean sea level.

DRAINAGE AREA.—6,580 square miles (revised).

RECORDS AVAILABLE.—January 1927 to September 1933.

DISCHARGE.—Maximum during year, 26,400 second-feet Feb. 25, 26 (gage height, 24.02 feet); minimum, 2,200 second-feet July 8 (gage height, 3.12 feet).

1927–33: Maximum, 73,000 second-feet Aug. 20, 1928 (gage height, 37.1 feet); minimum, 1,050 second-feet Dec. 25–30, 1931, and Jan. 2–7, 1932; minimum gage height, 2.11 feet Dec. 28, 1931, and Jan. 5–6, 1932.

REMARKS.—Records good. Staff gage read to hundredths once daily Nov. 16 to Dec. 13, recording gage during remainder of year. Discharge estimated Oct. 24 to Nov. 15, and June 11–12.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,200	6,600	7,580	5,360	10,200	25,300	13,100	11,000	3,640	2,500	2,620	2,800
2	13,900	7,000	7,580	5,250	10,600	24,500	12,700	10,600	3,640	2,440	2,740	3,160
3	13,300	7,700	7,660	5,140	11,200	23,500	12,300	10,300	3,520	2,440	2,500	3,280
4	12,900	8,500	7,660	4,920	12,200	22,400	12,000	10,000	3,400	2,380	2,440	3,160
5	12,300	8,900	7,580	4,810	13,100	21,100	11,700	9,640	3,280	2,380	2,440	3,280
6	11,800	8,900	7,580	4,700	13,900	20,200	11,600	9,280	3,280	2,320	2,560	5,140
7	11,400	8,900	7,320	4,590	14,400	19,400	12,000	8,940	3,280	2,320	2,620	6,960
8	11,200	8,700	7,140	4,480	15,200	18,800	12,200	8,620	3,160	2,260	2,680	7,580
9	11,000	8,500	6,960	4,590	16,400	18,200	12,200	8,380	3,100	2,440	2,920	7,740
10	10,800	8,300	6,780	4,700	17,400	17,800	12,200	8,060	3,100	2,500	2,920	7,820
11	10,800	8,100	6,400	4,920	18,300	17,200	12,600	7,740	3,060	2,380	2,920	7,740
12	10,800	7,900	6,200	5,140	19,000	16,600	13,300	7,410	3,020	2,320	2,860	7,660
13	10,800	7,800	6,100	5,470	19,800	16,000	14,600	7,140	2,980	2,320	2,740	7,410
14	10,600	7,600	6,000	6,300	20,600	15,400	15,400	6,780	2,920	2,320	2,680	7,230
15	10,400	7,400	5,900	6,960	21,400	14,700	15,900	6,500	2,920	2,320	2,740	6,960
16	10,100	7,230	5,800	7,500	22,200	14,000	16,800	6,200	2,920	2,440	2,680	6,690
17	9,550	7,140	5,800	7,820	22,800	13,300	17,800	5,900	2,980	2,500	2,680	6,200
18	9,020	7,050	5,900	7,980	23,200	12,700	18,200	5,580	2,860	2,440	2,620	5,800
19	8,620	6,960	6,000	8,140	23,700	12,100	18,300	5,470	2,800	2,380	2,680	5,360
20	8,380	6,870	6,100	8,300	24,200	11,700	18,000	5,250	2,800	2,380	2,860	5,030
21	8,300	6,780	6,200	8,380	24,500	12,400	17,800	5,030	2,740	2,380	2,980	4,700
22	8,140	6,780	6,300	8,460	25,100	13,300	17,400	4,810	2,740	2,380	3,100	4,480
23	8,140	6,780	6,400	8,460	25,600	13,600	17,000	4,700	2,740	2,500	3,160	4,240
24	8,000	6,690	6,400	8,460	26,100	13,800	16,400	4,480	2,740	2,740	3,040	4,000
5	7,900	6,690	6,400	8,620	26,400	13,800	15,600	4,360	2,740	2,980	2,980	3,760
26	7,800	6,960	6,400	8,860	26,400	13,800	14,700	4,120	2,680	3,040	2,860	3,640
27	7,700	7,050	6,300	9,460	26,100	13,600	13,800	4,000	2,620	3,040	2,740	3,520
28	7,500	7,320	6,200	9,640	25,800	13,500	12,900	4,000	2,620	2,980	2,620	3,400
29	7,300	7,410	6,000	9,910	-------	13,500	12,200	3,880	2,560	2,980	2,560	3,280
30	7,000	7,500	5,800	10,100	-------	13,500	11,600	3,760	2,500	2,800	2,440	3,160
31	6,800	-------	5,690	10,100	-------	13,400	-------	3,640	-------	2,740	2,380	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	14,200	6,800	9,890	1.50	1.73
November	8,900	6,600	7,530	1.14	1.27
December	7,660	5,690	6,520	.991	1.14
January	10,100	4,480	7,020	1.07	1.23
February	26,400	10,200	19,800	3.01	3.13
March	25,300	11,700	16,200	2.46	2.84
April	18,300	11,600	14,400	2.19	2.44
May	11,000	3,640	6,630	1.01	1.16
June	3,640	2,500	2,980	.453	.51
July	3,040	2,260	2,530	3.84	.44
August	3,160	2,380	2,730	.415	.48
September	7,820	2,800	5,170	.786	.88
The year	26,400	2,260	8,370	1.27	17.25

SUWANNEE RIVER AT LURAVILLE, FLA.

LOCATION.—Staff gage in sec. 30, T. 4 S., R. 12 E., at highway bridge 1 mile south of Luraville, Suwannee County, and 3 miles above Grants Ferry Shoals. A large spring discharges into river 500 feet above bridge on left bank.

DRAINAGE AREA.—6,900 square miles (revised).

RECORDS AVAILABLE.—February 1927 to September 1933.

DISCHARGE.—Maximum during year, 24,000 second-feet Mar. 1 (gage height, 20.28 feet); minimum, 2,910 second-feet July 14, 15, Aug. 6, 31, and Sept. 1; minimum gage height, 3.15 feet Sept. 1.

1927–33: Maximum, about 66,000 second-feet Aug. 24, 1928 (gage height, 33.7 feet); minimum, 1,490 second-feet Dec. 17–31, 1931, Jan. 3–9, May 17–18, 1932; minimum gage height, 1.50 feet Dec. 27–30, 1931, Jan. 5–8, 1932.

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,700	7,110	7,550	5,850	9,930	24,000	14,300	13,400	4,850	3,270	3,180	2,910
2	14,600	7,220	7,550	5,550	10,000	23,500	14,100	12,900	4,750	3,270	3,090	3,270
3	14,200	7,880	7,550	5,450	10,500	23,200	13,800	12,400	4,650	3,180	3,090	3,550
4	13,900	8,320	7,550	5,450	11,200	22,800	13,500	12,000	4,550	3,180	3,000	3,650
5	13,500	8,650	7,660	5,350	11,800	21,900	13,200	11,500	4,450	3,090	3,000	3,850
6	13,000	8,870	7,550	5,250	12,600	21,300	13,000	11,200	4,350	3,090	2,910	3,850
7	12,600	8,980	7,550	5,150	13,200	20,900	12,900	10,800	4,250	3,090	3,090	5,250
8	12,400	8,870	7,440	5,050	13,900	20,200	13,200	10,300	4,250	3,000	3,090	5,650
9	12,100	8,760	7,220	5,050	14,400	19,600	13,300	9,930	4,250	3,000	3,180	6,780
10	11,800	8,650	7,000	5,050	15,400	19,200	13,300	9,570	4,250	3,090	3,360	7,110
11	11,600	8,430	6,780	5,150	16,100	18,600	13,400	9,210	4,050	3,090	3,360	7,220
12	11,600	8,320	6,560	5,250	17,000	18,200	13,800	8,760	4,050	3,090	3,360	7,330
13	11,600	8,100	6,450	5,450	17,700	17,700	14,400	8,430	3,950	3,000	3,360	7,220
14	11,500	7,880	6,350	5,650	18,400	17,100	15,100	8,100	3,950	2,910	3,270	7,110
15	11,400	7,660	6,250	6,150	19,100	16,500	15,900	7,770	3,950	2,910	3,180	7,000
16	11,200	7,550	6,150	6,670	19,800	16,000	16,400	7,440	3,850	3,000	3,180	6,890
17	10,900	7,330	6,050	7,110	20,200	15,400	17,400	7,110	3,850	3,090	3,180	6,560
18	10,300	7,330	6,050	7,440	20,700	14,800	18,100	6,890	3,850	3,090	3,090	6,250
19	9,810	7,330	6,050	7,660	21,200	14,200	18,500	6,450	3,850	3,090	3,090	5,950
20	9,450	7,110	6,150	7,880	21,400	13,500	18,600	6,450	3,750	3,000	3,180	5,650
21	9,090	7,110	6,250	7,990	21,900	13,500	18,600	6,250	3,650	3,090	3,270	5,350
22	8,870	7,000	6,350	8,210	22,200	14,100	18,500	6,050	3,650	3,000	3,360	5,150
23	8,760	7,000	6,450	8,210	22,600	14,600	18,400	5,850	3,650	3,090	3,550	4,850
24	8,650	6,890	6,450	8,210	22,900	14,600	17,900	5,650	3,650	3,090	3,550	4,750
25	8,650	6,780	6,450	8,320	23,400	14,800	17,500	5,550	3,550	3,270	3,360	4,650
26	8,650	6,780	6,350	8,430	23,600	14,800	17,000	5,450	3,550	3,450	3,360	4,450
27	8,430	6,890	6,350	8,870	23,800	14,700	16,100	5,250	3,450	3,550	3,270	4,250
28	8,210	7,110	6,250	9,090	23,800	14,600	15,400	5,150	3,450	3,550	3,180	4,150
29	7,990	7,330	6,250	9,450	-------	14,600	14,600	5,050	3,360	3,450	3,090	4,050
30	7,660	7,440	6,050	9,690	-------	14,600	14,100	4,950	3,360	3,450	3,000	3,850
31	7,330	-------	5,950	9,810	-------	14,600	-------	4,950	-------	3,360	2,910	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	14,700	7,330	10,800	1.57	1.81
November	8,980	6,780	7,690	1.11	1.24
December	7,660	5,950	6,660	.965	1.11
January	9,810	5,050	6,900	1.00	1.15
February	23,800	9,930	17,800	2.58	2.69
March	24,000	13,500	17,400	2.51	2.89
April	18,600	12,900	15,500	2.25	2.51
May	13,400	4,950	8,090	1.17	1.35
June	4,850	3,360	3,970	.575	.64
July	3,550	2,910	3,160	.458	.53
August	3,550	2,910	3,200	.464	.53
September	7,330	2,910	5,280	.765	.85
The year	24,000	2,910	8,800	1.28	17.30

SUWANNEE RIVER AT BRANFORD, FLA.

LOCATION.—Chain gage to June 14, 1933, and wire-weight gage thereafter in sec. 17 or 20, T. 6 S., R. 14 E., on highway bridge in Branford.

DRAINAGE AREA.—7,090 square miles.

RECORDS AVAILABLE.—July 1931 to September 1933.

DISCHARGE.—Maximum during year, 24,100 second-feet Mar. 1 (gage height, 21.96 feet); minimum, 3,500 second-feet Sept. 1 (gage height, 5.75 feet).

1931–33: Maximum, that of Mar. 1, 1933; minimum, 1,760 second-feet on numerous days in December 1931 and January 1932; minimum gage height, 2.55 feet May 16, 1932.

REMARKS.—Records good Oct. 1 to June 14; excellent thereafter. Discharge estimated Apr. 17.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,700	8,290	8,200	6,670	9,900	24,100	14,300	14,100	5,720	3,960	3,820	3,500
2	14,600	8,110	8,290	6,490	10,000	22,900	14,300	13,700	5,650	3,960	3,820	3,620
3	14,400	8,830	8,200	6,400	10,300	22,700	14,000	13,100	5,580	3,960	3,760	3,890
4	14,800	9,100	8,290	6,220	10,800	22,300	13,600	12,700	5,500	3,890	3,620	3,960
5	14,000	9,300	8,290	6,130	11,200	21,800	13,300	12,400	5,420	3,890	3,620	4,300
6	13,500	9,400	8,290	6,130	11,800	21,200	13,300	11,800	5,280	3,820	3,620	4,450
7	13,100	9,500	8,290	5,880	12,400	20,800	13,300	11,400	5,200	3,760	3,620	5,280
8	12,800	9,500	8,110	5,800	13,100	19,900	13,300	11,000	5,120	3,760	3,690	6,120
9	12,500	9,300	8,020	5,800	13,700	19,500	13,600	10,700	5,050	3,760	3,690	6,680
10	12,300	9,200	7,840	5,800	14,400	19,100	13,700	10,300	4,980	3,760	3,760	7,110
11	12,200	9,100	7,750	5,800	15,500	18,600	14,000	9,850	4,900	3,820	3,820	7,360
12	12,000	8,920	7,570	5,960	16,100	18,100	14,100	9,550	4,900	3,760	3,890	7,450
13	11,900	8,830	7,390	6,040	16,900	17,600	14,700	9,250	4,820	3,820	3,820	7,540
14	11,900	8,740	7,390	6,220	17,800	17,100	15,500	9,050	4,750	3,760	3,760	7,540
15	11,900	8,560	7,210	7,030	18,300	16,600	16,300	8,650	4,680	3,690	3,690	7,450
16	11,800	8,470	7,120	7,030	19,100	16,000	17,000	8,350	4,750	3,690	3,690	7,450
17	11,400	8,380	7,030	7,390	19,600	15,400	17,600	8,080	4,680	3,760	3,690	7,200
18	11,000	8,290	6,940	7,660	20,300	14,700	18,300	7,810	4,680	3,760	3,690	6,940
19	10,500	8,200	6,940	7,930	20,700	14,300	18,600	7,540	4,600	3,690	3,690	6,680
20	10,200	8,110	6,940	8,110	21,200	14,100	19,000	7,360	4,520	3,760	3,690	6,440
21	10,000	8,020	6,940	8,110	21,600	14,000	19,100	7,200	4,520	3,760	3,760	6,120
22	9,800	7,930	7,030	8,470	21,800	14,100	19,000	7,020	4,450	3,690	3,820	5,960
23	9,700	7,840	7,120	8,470	22,400	14,300	18,800	6,770	4,450	3,690	3,960	5,720
24	9,600	7,840	7,120	8,560	22,800	14,400	18,400	6,680	4,380	3,760	3,960	5,580
25	9,500	7,750	7,210	8,650	23,200	14,600	17,900	6,600	4,380	3,820	4,030	5,350
26	9,200	7,750	7,210	8,740	23,500	14,600	17,400	6,360	4,300	3,960	3,890	5,120
27	9,200	7,750	7,120	8,920	23,700	14,600	17,000	6,360	4,300	4,100	3,820	5,050
28	9,100	7,750	7,120	9,200	23,900	14,600	16,200	6,120	4,230	4,100	3,760	4,900
29	8,920	7,930	7,030	9,400	-------	14,600	15,400	6,040	4,160	4,030	3,690	4,750
30	8,650	8,110	6,940	9,600	-------	14,600	14,700	5,960	4,100	3,960	3,620	4,600
31	8,470	-------	6,850	9,700	-------	14,400	-------	5,800	-------	3,890	3,560	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	14,800	8,470	11,400	1.61	1.86
November	9,500	7,750	8,490	1.20	1.34
December	8,290	6,850	7,480	1.06	1.22
January	9,700	5,800	7,360	1.04	1.20
February	23,900	9,900	17,400	2.45	2.55
March	24,100	14,000	17,300	2.44	2.81
April	19,100	13,300	15,900	2.24	2.50
May	14,100	5,800	8,950	1.26	1.45
June	5,720	4,100	4,800	.677	.76
July	4,100	3,690	3,830	.540	.62
August	4,030	3,560	3,750	.529	.61
September	7,540	3,500	5,800	.818	.91
The year	24,100	3,500	9,310	1.31	17.83

SUWANNEE RIVER NEAR BELL, FLA.

LOCATION.—Water-stage recorder in sec. 17, T. 8 S., R. 14 E., at Rock Bluff Ferry, 4½ miles northwest of Bell and 10 miles below mouth of Santa Fe River. Zero of gage is 2.75 feet above mean sea level.
DRAINAGE AREA.—9,260 square miles.
RECORDS AVAILABLE.—June 1932 to September 1933.
DISCHARGE.—Maximum during year, 24,500 second-feet Mar. 2 (gage height, 15.36 feet); minimum, 5,570 second-feet Sept. 1 (gage height, 4.22 feet).
1932–33: Maximum, that of Mar. 2, 1933; minimum, 3,320 second-feet June 1–3, 10–12, 1932; minimum gage height, 1.55 feet June 1, 2, 11, 1932.
REMARKS.—Records excellent.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,400	10,400	9,890	8,330	11,500	24,200	17,400	18,500	8,590	6,230	6,010	5,680
2	16,400	10,300	10,000	8,080	11,800	24,500	17,400	17,800	8,460	6,230	6,010	5,680
3	16,200	10,400	10,200	8,080	11,900	24,200	17,400	17,400	8,330	6,120	5,900	6,010
4	16,000	10,700	10,200	7,960	12,200	24,200	17,000	16,800	8,200	6,120	5,900	6,120
5	16,000	10,900	10,200	7,840	12,600	23,800	16,800	16,400	8,080	6,010	5,790	6,450
6	15,800	11,200	10,200	7,720	12,900	23,500	16,800	15,800	8,080	5,900	5,790	7,000
7	15,300	11,400	10,200	7,600	13,500	23,500	16,800	15,500	7,960	5,900	5,790	7,360
8	14,900	11,500	10,000	7,600	14,000	22,900	16,600	14,900	7,840	5,900	5,790	8,330
9	14,800	11,500	9,890	7,480	14,500	22,400	16,600	14,600	7,720	5,900	5,790	9,240
10	14,500	11,400	9,760	7,360	14,900	22,100	17,000	14,200	7,600	5,900	5,900	9,890
11	14,300	11,200	9,630	7,360	15,600	21,600	17,200	13,900	7,600	6,010	6,010	10,400
12	14,200	11,100	9,500	7,480	16,200	21,000	17,600	13,500	7,360	6,010	6,010	10,800
13	14,200	10,800	9,370	7,720	16,800	20,800	17,800	13,200	7,360	6,010	6,010	10,900
14	14,000	10,700	9,240	7,720	17,600	20,200	18,200	12,800	7,360	5,900	5,900	11,100
15	13,900	10,500	9,110	7,960	18,200	20,000	19,000	12,500	7,120	5,900	5,790	11,100
16	14,000	10,400	8,980	8,330	19,000	19,200	19,800	12,100	7,000	5,900	5,790	10,900
17	13,900	10,400	8,850	8,720	19,500	18,800	20,200	11,800	7,000	5,790	5,790	10,800
18	13,600	10,300	8,720	9,110	20,000	18,200	20,800	11,500	7,000	5,790	5,900	10,500
19	13,200	10,300	8,590	9,370	20,800	17,600	21,300	11,100	7,000	5,900	5,900	10,200
20	12,800	10,200	8,590	9,630	21,000	17,600	21,800	10,800	6,890	6,010	5,900	9,890
21	12,500	9,890	8,590	9,890	21,600	17,400	22,100	10,500	6,890	6,010	5,900	9,500
22	12,200	9,760	8,720	10,000	21,800	17,000	22,400	10,300	6,890	5,900	6,010	9,110
23	11,900	9,760	8,720	10,200	22,400	17,000	22,400	10,200	6,890	5,900	6,230	8,850
24	11,800	9,630	8,850	10,200	22,700	17,200	22,400	9,890	6,780	5,900	6,230	8,590
25	11,600	9,630	8,980	10,300	22,900	17,400	22,100	9,630	6,670	6,010	6,340	8,330
26	11,500	9,630	8,980	10,400	23,200	17,600	21,600	9,500	6,560	6,120	6,340	8,080
27	11,500	9,630	8,850	10,500	23,500	17,600	21,300	9,370	6,450	6,230	6,230	7,840
28	11,400	9,500	8,850	10,700	23,800	17,600	20,500	9,240	6,450	6,230	6,010	7,600
29	11,100	9,630	8,850	10,900	-------	17,600	20,000	8,980	6,340	6,230	5,900	7,480
30	10,800	9,760	8,720	11,200	-------	17,600	19,200	8,850	6,340	6,230	5,790	7,360
31	10,500	-------	8,590	11,400	-------	17,600	-------	8,720	-------	6,120	5,680	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	16,400	10,500	13,600	1.47	1.70
November	11,500	9,500	10,400	1.12	1.25
December	10,200	8,590	9,280	1.00	1.15
January	11,400	7,360	8,940	.965	1.11
February	23,800	11,500	17,700	1.91	1.99
March	24,500	17,000	20,100	2.17	2.50
April	22,400	16,600	19,200	2.07	2.31
May	18,500	8,720	12,600	1.36	1.57
June	8,590	6,340	7,290	.787	.88
July	6,230	5,790	6,010	.649	.75
August	6,340	5,680	5,950	.643	.74
September	11,100	5,680	8,700	.940	1.05
The year	24,500	5,680	11,600	1.25	17.00

ALAPAHA RIVER AT STATENVILLE, GA.

LOCATION.—Chain gage at highway bridge on road from Statenville to Valdosta, a quarter of a mile west of Statenville, Echols County. Staff gage below bridge from January to June 1921, datum 2.10 feet above present datum.

DRAINAGE AREA.—1,370 square miles.

RECORDS AVAILABLE.—January to June 1921; December 1931 to September 1933.

DISCHARGE.—Maximum during year, 6,140 second-feet Feb. 22 (gage height, 21.82 feet); minimum, 69 second-feet July 18 (gage height, 1.59 feet).

1921, 1931–33: Maximum, that of February 1933; minimum, 17 second-feet Dec. 21, 28–31, 1931 (gage height, 0.99 foot). Maximum known stage, 28.6 feet, referred to present gage.

REMARKS.—Records excellent for 1933, fair for 1921.

Discharge, in second-feet, 1921, 1932–33

Day	Jan.	Feb.	Mar.	Apr.	May	June	Day	Jan.	Feb.	Mar.	Apr.	May	June
1921							1921						
1	-------	1,220	659	540	707	1,760	16	-------	955	540	399	416	416
2	-------	1,130	659	755	616	1,430	17	-------	905	540	399	450	399
3	-------	1,130	635	540	468	1,100	18	-------	880	540	399	468	399
4	-------	1,130	635	522	540	905	19	-------	855	522	433	504	399
5	-------	1,160	635	522	504	905	20	-------	805	559	504	616	350
6	-------	1,220	616	522	468	905	21	-------	755	597	616	731	350
7	-------	1,280	616	468	433	805	22	-------	707	468	855	855	350
8	-------	1,250	597	468	433	731	23	-------	683	540	830	955	350
9	-------	1,280	578	450	416	659	24	-------	683	540	805	1,060	335
10	-------	1,280	616	468	416	597	25	-------	683	540	578	1,220	335
11	-------	1,310	635	468	399	468	26	-------	659	540	597	1,400	320
12	-------	1,310	616	450	399	540	27	-------	659	540	597	1,640	335
13	-------	1,190	597	416	399	504	28	1,550	683	540	830	1,820	350
14	-------	1,100	578	399	399	468	29	1,460	-------	540	805	1,970	365
15	-------	1,030	559	399	399	450	30	1,370	-------	504	659	2,000	365
							31	1,280	-------	486	-------	1,940	-------

Discharge, in second-feet, of Alapaha River at Statenville, Ga., 1921, 1932–33—Contd.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1932–33												
1	705	1,490	1,310	1,280	2,360	3,830	2,780	1,060	164	128	234	142
2	555	1,730	1,370	1,130	3,440	3,590	2,630	1,030	174	122	194	156
3	505	1,460	1,460	1,080	3,800	3,350	2,480	1,060	156	116	184	234
4	505	1,280	1,520	1,000	4,040	3,140	2,300	1,060	142	110	174	156
5	555	1,190	1,550	955	4,190	2,930	2,090	1,030	128	105	174	264
6	730	1,190	1,580	905	4,310	2,810	2,030	1,000	122	95	285	980
7	580	1,160	1,520	905	4,400	2,630	1,940	980	116	95	530	905
8	780	1,160	1,460	955	4,460	2,540	1,760	955	110	85	436	705
9	830	1,100	1,370	1,030	4,370	2,390	1,430	880	134	80	390	705
10	930	1,060	1,340	1,100	4,700	2,270	1,670	830	134	75	327	755
11	1,160	1,030	1,280	1,080	4,760	2,180	1,850	755	142	75	285	755
12	1,430	1,000	1,220	1,220	4,970	2,030	2,210	680	134	70	436	755
13	1,550	1,030	1,160	1,580	5,000	1,940	2,000	605	116	80	184	955
14	1,760	1,030	1,060	1,780	4,970	1,850	1,910	505	142	75	174	1,030
15	1,640	1,100	980	1,820	5,030	1,730	1,910	459	122	95	156	1,060
16	1,280	1,220	955	1,850	5,100	1,700	2,300	413	116	80	149	980
17	1,060	1,250	980	1,850	5,130	1,580	2,180	390	105	80	134	805
18	955	1,370	1,060	1,820	5,130	1,460	2,060	348	100	70	128	655
19	955	1,400	1,100	1,790	5,200	1,310	2,030	306	122	75	214	505
20	1,000	1,400	1,190	1,760	5,400	2,090	1,970	285	234	100	285	436
21	1,060	1,220	1,280	1,760	5,920	2,870	1,910	264	459	105	348	390
22	1,190	955	1,340	1,730	6,140	2,330	1,790	254	459	85	244	348
23	1,280	905	1,400	1,700	6,060	2,150	1,670	234	369	100	204	306
24	1,460	880	1,460	1,730	5,680	2,060	1,550	214	306	95	164	285
25	1,520	905	1,490	1,820	5,160	1,940	1,580	204	244	134	142	254
26	1,520	1,030	1,550	2,270	4,940	1,970	1,310	174	214	128	116	234
27	1,430	1,080	1,550	2,360	4,700	2,120	1,190	164	184	122	110	214
28	1,340	1,190	1,550	2,420	4,100	2,390	1,160	156	164	174	110	194
29	1,280	1,280	1,490	2,270	-------	2,720	1,130	149	142	224	100	174
30	1,220	1,310	1,400	2,120	-------	2,930	1,080	142	134	234	110	156
31	1,190	-------	1,340	2,150	-------	2,960	-------	149	-------	234	134	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1921					
January 28–31	1,550	1,280	1,420	1.04	0.15
February	1,310	659	998	.728	.76
March	659	468	573	.418	.48
April	855	399	556	.406	.45
May	2,000	399	808	.590	.68
June	1,760	320	588	.429	.48
1932–33					
October	1,760	505	1,100	.803	.93
November	1,730	880	1,180	.861	.96
December	1,580	955	1,330	.971	1.12
January	2,420	905	1,590	1.16	1.34
February	6,140	2,360	4,770	3.48	3.62
March	3,830	1,310	2,380	1.74	2.01
April	2,780	1,080	1,860	1.36	1.52
May	1,060	142	540	.394	.45
June	459	100	180	.131	.15
July	234	70	111	.081	.09
August	530	100	221	.161	.19
September	1,060	142	516	.377	.42
The year	6,140	70	1,290	.942	12.80

WITHLACOOCHEE RIVER NEAR PINETTA, FLA.

LOCATION.—Chain gage in sec. 6, T. 2 N., R. 11 E., on highway bridge a quarter of a mile west of Bellville and 5 miles east of Pinetta.
DRAINAGE AREA.—2,220 square miles.
RECORDS AVAILABLE.—December 1931 to September 1933.
DISCHARGE.—Maximum during year, 9,820 second-feet Feb. 24 (gage height, 22.79 feet); minimum, 172 second-feet July 11–13 (gage height, 6.94 feet).
1931–33: Maximum, that of Feb. 24, 1933; minimum, 103 second-feet Dec. 16, 1931 (gage height, 6.64 feet).
REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,640	1,940	2,360	1,240	4,040	8,240	3,620	1,730	350	215	390	1,240
2	2,500	3,200	2,430	1,170	4,460	7,520	3,130	1,660	293	202	350	960
3	2,360	3,970	2,430	1,100	5,300	6,780	2,850	1,660	293	202	311	960
4	2,010	4,320	2,360	1,100	6,000	5,650	2,780	1,590	259	188	293	788
5	1,660	4,460	2,290	1,030	6,300	5,020	2,640	1,450	229	188	350	820
6	1,800	4,180	2,080	1,030	6,540	4,180	2,780	1,310	243	188	580	2,080
7	2,010	3,620	1,870	1,030	6,540	3,760	3,130	1,100	243	183	527	2,220
8	2,220	3,340	1,660	960	6,360	4,110	3,130	1,030	259	188	725	2,220
9	2,500	2,920	1,450	960	6,420	4,390	3,060	890	293	178	788	2,080
10	3,130	2,780	1,450	1,100	6,600	4,390	3,130	820	293	178	598	2,150
11	3,760	2,710	1,240	1,170	7,010	4,250	3,550	725	275	172	554	2,080
12	4,250	2,570	1,170	1,310	7,300	4,110	5,020	635	259	172	477	1,870
13	4,390	2,360	1,100	1,520	7,750	3,970	6,120	580	275	172	432	1,730
14	4,320	2,080	1,170	1,940	8,080	3,760	6,420	554	293	183	502	1,590
15	3,620	2,080	1,240	2,290	8,290	3,550	6,840	502	275	215	580	1,450
16	3,060	1,940	1,380	2,640	8,450	3,200	6,950	454	411	202	502	1,170
17	2,290	1,800	1,520	2,710	8,660	2,850	7,010	411	390	215	432	960
18	2,010	1,660	1,730	2,780	8,710	2,500	6,840	454	370	202	370	725
19	1,940	1,520	1,940	2,920	8,760	2,220	6,540	502	350	229	411	598
20	1,940	1,520	2,080	2,990	8,820	2,220	6,240	432	311	243	477	527
21	1,940	1,660	2,220	2,990	9,020	3,410	6,000	390	330	275	665	477
22	2,080	1,730	2,290	2,780	9,420	3,970	5,720	370	275	293	598	411
23	2,150	1,800	2,290	2,570	9,720	4,460	5,300	330	275	432	527	350
24	1,940	1,730	2,290	2,710	9,820	4,670	4,530	311	275	580	454	311
25	2,290	1,800	2,220	2,710	9,720	5,090	3,760	293	259	960	390	293
26	2,150	1,940	2,080	3,410	9,570	5,160	2,990	293	243	960	350	259
27	1,870	2,080	1,940	3,900	9,120	5,160	2,430	330	229	890	293	259
28	1,590	2,220	1,730	4,040	8,710	5,160	2,080	330	229	755	243	229
29	1,240	2,290	1,590	4,110	-------	5,160	1,940	293	215	665	229	229
30	1,030	2,360	1,450	4,110	-------	4,950	1,800	275	215	554	229	215
31	855	-------	1,310	4,040	-------	4,390	-------	330	-------	259	275	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,390	855	2,370	1.07	1.23
November	4,460	1,520	2,490	1.12	1.25
December	2,430	1,100	1,820	.820	.95
January	4,110	960	2,270	1.02	1.18
February	9,820	4,040	7,700	3.47	3.61
March	8,240	2,220	4,460	2.01	2.32
April	7,010	1,800	4,280	1.93	2.15
May	1,730	275	711	.320	.37
June	411	215	284	.128	.14
July	960	172	340	.153	.18
August	788	229	448	.202	.23
September	2,220	215	1,040	.468	.52
The year	9,820	172	2,310	1.04	14.13

SANTA FE RIVER AT WORTHINGTON, FLA.

LOCATION.—Staff gage in sec. 33, T. 6 S., R. 19 E., at highway bridge on State highway 49 a quarter of a mile south of Worthington and a quarter of a mile below mouth of New River.

RECORDS AVAILABLE.—November 1931 to September 1933.

DISCHARGE.—Maximum during year, 3,120 second-feet Sept. 8 (gage height, 18.20 feet); minimum, 9.0 second-feet July 12 (gage height, 7.50 feet).

1932–33: Maximum, that of Sept. 8, 1933; minimum, 1.3 second-feet May 17, June 1, 1932 (gage height, 7.15 feet).

REMARKS.—Records good above 135 second-feet and fair below. Discharge interpolated Dec. 25, Mar. 5, Sept. 24–30.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	242	28	198	34	66	110	297	264	55	48	198	253
2	209	40	176	33	62	120	242	242	39	26	135	155
3	165	40	176	33	62	110	253	209	51	30	110	125
4	145	37	155	31	66	115	286	187	53	41	110	95
5	115	32	135	30	85	110	275	165	38	24	115	565
6	115	37	125	30	115	105	791	145	29	28	130	1,130
7	95	53	105	29	125	95	1,350	130	22	28	145	2,080
8	80	90	75	35	130	110	1,920	120	18	21	242	3,120
9	66	120	75	38	253	100	2,170	110	16	14	309	3,120
10	57	130	70	39	333	100	2,260	95	14	12	345	2,850
11	49	135	62	39	381	95	2,370	85	16	10	333	2,370
12	42	135	53	42	381	85	2,980	75	18	9.0	309	1,780
13	35	155	48	66	405	70	2,720	70	20	13	264	1,540
14	30	176	44	115	429	66	2,370	66	25	15	242	1,100
15	29	176	42	125	453	56	1,850	55	36	19	198	853
16	32	155	43	125	453	50	1,600	49	29	45	165	661
17	42	130	45	115	405	45	1,540	46	27	43	135	611
18	41	105	46	100	357	40	1,490	57	16	41	130	466
19	33	100	48	85	309	36	1,390	43	19	29	176	417
20	29	110	49	75	275	33	1,230	42	14	66	275	321
21	27	120	46	66	242	565	1,080	38	11	85	417	275
22	24	130	47	62	209	733	900	34	9.8	105	429	231
23	22	120	46	57	209	900	875	30	11	135	535	198
24	19	120	43	55	187	1,130	661	29	14	253	535	183
25	18	130	42	57	176	1,020	550	26	13	309	521	168
26	16	155	41	85	135	925	466	24	12	393	466	154
27	15	176	38	85	120	811	405	22	13	417	381	139
28	14	198	35	90	105	643	369	21	14	405	333	124
29	13	220	33	90	-------	521	333	23	20	345	275	110
30	12	220	32	90	-------	441	286	27	29	275	220	95
31	11	-------	34	75	-------	369	-------	45	-------	231	176	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	242	11	59.4	May	264	21	83.0
November	220	28	119	June	55	9.8	23.4
December	198	32	71.2	July	417	9.0	113
January	125	29	65.5	August	535	110	269
February	453	62	233	September	3,120	95	843
March	1,130	33	313				
April	2,980	242	1,180	The year	3,120	9.0	278

SANTA FE RIVER NEAR HIGH SPRINGS, FLA.

LOCATION.—Staff gage until Jan. 9 and water-stage recorder thereafter in sec. 29, T. 7 S., R. 17 E., at highway bridge on State highway 5A, 150 feet upstream from Atlantic Coast Line Railroad bridge and 2 miles northwest of High Springs. Zero of gage is 25.78 feet above mean sea level.

RECORDS AVAILABLE.—January 1931 to September 1933.

DISCHARGE.—Maximum during year, 2,760 second-feet Sept. 11 (gage height, 6.10 feet); minimum, 143 second-feet Jan. 10 (gage height, 0.83 foot).

1931–33: Maximum, that of Sept. 11, 1933; minimum, 78 second-feet June 9–10, 1932 (gage height, 0.48 foot).

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	655	263	292	155	182	272	745	1,040	394	272	426	538
2	610	254	286	160	182	263	678	990	382	272	410	529
3	565	254	278	160	175	260	655	940	374	272	390	502
4	556	266	269	160	180	257	610	890	370	2[illegible]	362	480
5	556	269	257	158	168	251	610	840	366	2[illegible]	346	655
6	516	269	245	155	170	257	700	790	358	2[illegible]	350	1,090
7	475	275	245	150	188	272	840	768	354	2[illegible]	354	1,590
8	462	272	227	153	200	251	1,060	745	346	2[illegible]	354	2,040
9	452	275	221	153	185	242	1,390	700	338	2[illegible]	378	2,460
10	439	275	218	146	230	242	1,690	678	330	2[illegible]	398	2,700
11	418	286	221	150	269	239	1,860	655	326	2[illegible]	418	2,760
12	398	286	215	153	300	239	2,100	632	334	2[illegible]	444	2,700
13	382	282	209	155	342	236	2,280	610	346	2[illegible]	452	2,580
14	382	289	200	155	374	230	2,460	588	334	2[illegible]	448	2,340
15	374	300	197	160	410	221	2,520	565	318	2[illegible]	444	2,100
16	374	310	191	170	439	215	2,460	560	318	2[illegible]	434	1,860
17	354	303	191	180	452	209	2,400	547	314	2[illegible]	452	1,690
18	342	296	178	185	448	209	2,400	524	310	2[illegible]	422	1,540
19	322	286	178	188	430	212	2,400	506	303	278	430	1,390
20	310	266	178	185	422	254	2,340	498	300	2[illegible]	498	1,290
21	310	266	180	182	386	318	2,220	488	296	3[illegible]	547	1,220
22	303	266	180	180	378	422	2,040	475	292	3[illegible]	588	1,120
23	292	266	180	175	370	700	1,860	462	292	3[illegible]	632	1,040
24	289	266	175	170	354	990	1,690	444	286	3[illegible]	678	990
25	275	263	175	178	346	1,120	1,590	439	282	374	678	915
26	272	254	172	168	326	1,120	1,440	430	289	4[illegible]	678	865
27	269	254	172	175	300	1,060	1,340	422	282	434	678	840
28	260	260	172	170	286	1,020	1,240	418	275	4[illegible]	655	790
29	251	278	168	172	-------	940	1,160	406	272	4[illegible]	610	768
30	251	296	168	178	-------	840	1,090	410	272	470	588	745
31	251	-------	168	180	-------	768	-------	398	-------	457	556	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	655	251	386	May	1,040	398	608
November	310	254	275	June	394	272	322
December	292	168	207	July	470	260	313
January	188	146	166	August	678	346	487
February	452	168	303	September	2,760	480	1,400
March	1,120	209	456				
April	2,520	610	1,600	The year	2,760	146	542

SANTA FE RIVER NEAR FORT WHITE, FLA.

LOCATION.—Water-stage recorder in sec. 28, T. 7 S., R. 16 E., 2 miles upstream from county highway bridge on road between Willeford and Fort White and 4 miles south of Fort White. Zero of gage is 21.28 feet above mean sea level.

RECORDS AVAILABLE.—October 1927 to January 1930, June 1932 to September 1933.

DISCHARGE.—Maximum during year, 2,810 second-feet Apr. 19, 20; maximum gage height, 4.19 feet Apr. 20; minimum discharge, 816 second-feet Jan. 10, 11 (gage height, 0.69 foot).

1927–33: Maximum, about 4,750 second-feet Aug. 27–29, 1928 (gage height, 9.5 feet); minimum, 670 second-feet June 4–5, 1932 (gage height, 0.65 foot).

REMARKS.—Records good except those estimated for Oct. 1–13, Sept. 15–25, which are fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,490	927	1,020	842	868	1,020	1,400	1,880	1,120	970	1,210	1,250
2	1,430	910	1,020	842	859	1,040	1,360	1,820	1,120	970	1,210	1,210
3	1,400	902	1,010	850	850	1,050	1,330	1,700	1,120	970	1,160	1,210
4	1,360	910	1,010	842	859	1,050	1,290	1,640	1,080	970	1,160	1,210
5	1,330	918	995	842	842	1,020	1,330	1,580	1,080	961	1,160	1,400
6	1,290	918	986	834	842	970	1,430	1,580	1,080	970	1,160	1,580
7	1,250	918	986	834	868	978	1,520	1,520	1,070	970	1,160	1,940
8	1,210	936	970	834	893	902	1,640	1,490	1,060	970	1,160	2,280
9	1,160	936	952	834	868	893	1,880	1,460	1,060	970	1,160	2,530
10	1,120	927	952	816	893	884	2,180	1,430	1,030	970	1,160	2,650
11	1,120	936	944	825	918	876	2,330	1,400	1,030	978	1,210	2,730
12	1,060	936	936	834	936	868	2,430	1,360	1,040	986	1,210	2,770
13	1,040	936	927	842	970	859	2,570	1,360	1,050	995	1,210	2,730
14	1,030	936	927	825	986	850	2,650	1,330	1,040	995	1,210	2,650
15	1,030	944	918	834	1,010	842	2,730	1,290	1,020	1,000	1,210	2,530
16	1,030	961	910	850	1,040	834	2,770	1,290	1,010	1,000	1,210	2,380
17	1,010	961	910	859	1,070	825	2,770	1,290	1,010	995	1,210	2,280
18	995	952	893	868	1,070	825	2,770	1,250	1,010	995	1,160	2,180
19	978	961	893	868	1,050	825	2,810	1,250	1,000	1,030	1,160	2,060
20	970	936	893	868	1,050	902	2,810	1,250	1,000	1,040	1,210	1,940
21	961	936	893	859	1,030	936	2,770	1,210	995	1,030	1,250	1,880
22	952	936	893	859	1,010	1,000	2,730	1,210	995	1,060	1,290	1,760
23	944	944	893	850	1,010	1,210	2,650	1,210	1,000	1,070	1,330	1,700
24	936	952	884	850	1,010	1,490	2,570	1,160	995	1,080	1,360	1,640
25	927	952	884	859	1,020	1,640	2,480	1,160	986	1,120	1,360	1,580
26	936	961	876	850	1,030	1,640	2,380	1,160	995	1,160	1,360	1,520
27	927	944	876	859	1,020	1,640	2,280	1,160	986	1,210	1,360	1,520
28	910	944	868	842	1,010	1,580	2,180	1,160	978	1,210	1,330	1,490
29	910	970	868	850	-------	1,520	2,060	1,120	978	1,250	1,330	1,460
30	902	995	859	859	-------	1,460	1,940	1,120	970	1,250	1,290	1,430
31	902	-------	859	859	-------	1,430	-------	1,120	-------	1,250	1,250	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	1,490	902	1,080	May	1,880	1,120	1,350
November	995	902	940	June	1,120	970	1,030
December	1,020	859	926	July	1,250	961	1,040
January	868	816	846	August	1,360	1,160	1,230
February	1,070	842	960	September	2,770	1,210	1,920
March	1,640	825	1,090				
April	2,810	1,290	2,200	The year	2,810	816	1,220

ICHATUCKNEE SPRINGS NEAR HILDRETH, FLA.

LOCATION.—In sec. 23, T. 6 S., R. 15 E., at bridge on State highway 5A, 1 mile east of Hildreth.

RECORDS AVAILABLE.—Discharge measurements from January 1931 to September 1933. Single measurements only during 1917, 1929–30.

Discharge measurements, in second-feet, 1932–33

Oct. 14	320	Feb. 16	279	June 9	370
Nov. 16	329	Mar. 7	303	July 19	365
Dec. 15	326	Mar. 30	342	Aug. 4	356
Jan. 3	322	May 10	381	Sept. 26	356

OCHLOCKONEE RIVER BASIN

OCHLOCKONEE RIVER NEAR HAVANA, FLA.

LOCATION.—Chain gage in sec. 24, T. 2 N., R. 2 W., at bridge on State highway 1, three-quarters of a mile above Georgia, Florida & Alabama Railway bridge and 5 miles southeast of Havana.

DRAINAGE AREA.—1,020 square miles.

RECORDS AVAILABLE.—December 1928 to September 1933.

DISCHARGE.—Maximum during year, 8,670 second-feet Apr. 17 (gage height, 27.83 feet); minimum, 60 second-feet July 12, 14; minimum gage height, 12.42 feet Sept. 30.

1928–33: Maximum, 14,200 second-feet Mar. 19, 1929 (gage height, 30.3 feet); minimum, 30 second-feet Nov. 11–16, 18–21, 1931; minimum gage height, 11.89 feet Nov. 20, 1931.

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,330	1,960	1,600	946	1,960	2,950	1,850	1,580	210	139	146	300
2	2,250	2,210	1,550	898	2,330	2,550	1,880	1,430	193	161	125	281
3	1,880	3,190	1,380	874	2,450	2,290	1,720	1,350	177	169	112	319
4	1,580	4,700	1,190	850	2,600	2,210	1,820	1,310	169	134	92	319
5	1,330	5,160	1,090	802	2,750	2,130	1,760	1,230	161	118	86	300
6	1,990	4,810	994	756	2,850	1,920	1,920	1,160	146	98	105	263
7	2,250	4,220	946	733	2,850	2,250	1,880	1,070	139	91	118	300
8	2,750	3,550	874	733	3,190	2,330	1,850	994	132	90	169	549
9	3,550	3,190	850	733	3,190	2,550	1,820	922	125	78	227	802
10	4,140	2,650	826	733	3,070	3,010	2,370	874	118	71	193	874
11	4,310	2,250	826	733	3,130	3,250	2,370	922	125	63	154	802
12	4,140	1,990	779	710	3,490	3,310	2,850	733	118	60	146	641
13	3,690	1,720	898	874	3,310	3,130	3,190	687	112	64	146	526
14	3,010	1,600	1,020	1,110	3,310	2,800	3,980	618	105	60	210	438
15	2,100	1,450	1,140	1,330	3,370	2,290	6,440	572	105	82	338	357
16	1,450	1,280	1,260	1,450	3,550	1,990	8,440	526	105	92	338	300
17	1,520	1,160	1,330	1,520	3,620	1,700	8,670	481	105	92	300	263
18	1,580	1,070	1,380	1,500	3,690	1,500	7,160	459	98	105	319	218
19	1,760	1,040	1,380	1,430	3,690	1,400	6,610	438	98	105	357	193
20	1,960	1,040	1,350	1,310	3,900	1,500	5,970	377	91	105	357	177
21	1,990	1,110	1,330	1,140	4,310	2,210	5,280	357	88	132	338	161
22	1,850	1,210	1,310	1,070	4,810	2,550	4,700	338	71	218	338	132
23	1,660	1,230	1,230	1,210	5,040	3,070	3,980	300	85	185	357	118
24	1,450	1,210	1,160	1,310	5,040	3,620	3,370	281	91	227	281	105
25	1,210	1,110	1,070	1,380	4,920	3,760	2,700	263	90	338	185	92
26	1,040	1,110	1,020	1,850	4,400	3,620	2,550	263	105	300	193	85
27	1,040	1,210	994	2,060	3,900	3,430	2,410	227	98	245	154	76
28	922	1,350	994	2,130	3,430	2,950	2,130	227	98	185	146	69
29	874	1,500	1,020	2,130	-------	2,500	1,820	218	125	161	125	66
30	802	1,600	1,020	2,130	-------	2,130	1,640	210	169	161	105	61
31	733	-------	994	2,020	-------	1,780	-------	218	-------	169	300	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,310	733	2,040	2.00	2.31
November	5,160	1,040	2,100	2.06	2.30
December	1,600	779	1,120	1.10	1.27
January	2,130	710	1,240	1.22	1.41
February	5,040	1,960	3,510	3.44	3.58
March	3,760	1,400	2,540	2.49	2.87
April	8,670	1,640	3,500	3.43	3.83
May	1,580	210	666	.653	.75
June	210	71	122	.120	.13
July	338	60	139	.136	.16
August	357	86	212	.208	.24
September	874	61	306	.300	.33
The year	8,670	60	1,440	1.41	19.18

OCHLOCKONEE RIVER NEAR BLOXHAM, FLA.

LOCATION.—Water-stage recorder in sec. 29, T. 1 S., R. 4 W., 1,000 feet below dam and 1 mile west of Bloxham.

DRAINAGE AREA.—1,660 square miles.

RECORDS AVAILABLE.—June 1926 to September 1933.

DISCHARGE.—Maximum during year, 11,200 second-feet Apr. 18 (gage height, 18.04 feet); minimum, 10 second-feet July 17 (gage height, −1.50 feet).

1926–33: Maximum, 19,900 second-feet Aug. 19, 1928 (gage height, 21.4 feet); no flow Sept. 21, 22, 1929, and on several days in 1931.

REMARKS.—Records fair above 25 second-feet and poor below. Flow regulated by operation of power plant 1,000 feet above gage.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,100	3,140	2,170	2,640	3,660	5,040	4,860	4,100	1,500	1,200	732	1,190
2	3,600	4,320	2,290	1,740	4,230	4,860	7,350	3,690	247	435	672	784
3	3,390	4,270	2,310	1,740	4,880	3,760	6,040	3,510	331	953	680	515
4	2,500	5,710	3,110	1,680	5,080	3,660	4,760	3,460	64	127	764	881
5	3,380	6,920	2,190	1,430	4,720	3,530	4,620	2,830	675	744	663	987
6	3,630	8,050	2,250	1,020	4,450	3,440	4,690	2,460	862	603	153	868
7	3,980	7,130	2,060	1,380	4,050	3,890	4,440	2,320	502	1,020	567	710
8	3,920	6,520	1,650	2,380	4,470	4,230	4,490	2,480	623	436	697	500
9	3,980	5,710	1,440	1,220	4,840	4,370	4,520	1,910	170	232	816	386
10	3,980	4,490	1,100	1,390	4,790	4,210	5,210	1,720	823	857	744	94
11	3,980	4,170	950	1,190	4,700	4,250	6,840	1,850	530	196	705	623
12	4,120	4,170	1,490	1,160	4,680	4,370	7,220	1,990	842	473	995	616
13	4,120	3,890	1,820	1,480	4,660	4,180	4,850	1,200	158	191	311	959
14	4,410	3,570	2,210	1,790	4,490	4,070	7,120	1,120	37	139	679	652
15	5,530	2,270	2,700	2,140	4,490	4,050	10,500	1,340	433	97	594	589
16	5,160	2,050	2,480	1,770	4,490	3,730	8,750	1,280	45	23	797	779
17	4,620	2,100	2,440	1,810	4,710	3,500	9,630	1,390	23	6[illegible]	919	142
18	3,980	2,300	3,000	1,760	5,060	3,430	10,100	1,180	23	676	924	204
19	3,840	2,370	2,790	1,680	5,290	2,140	8,820	1,070	18	9[illegible]	832	547
20	3,620	2,950	2,750	1,800	5,410	3,190	8,040	570	720	3[illegible]	366	276
21	3,300	2,120	2,410	1,790	6,820	4,070	6,000	852	710	2[illegible]	952	384
22	2,580	2,200	2,280	2,260	5,940	4,070	7,050	1,390	743	625	876	425
23	740	2,340	2,280	2,120	5,370	4,220	6,210	1,380	881	183	760	527
24	2,060	2,270	2,390	2,880	5,620	4,370	5,990	1,290	998	534	680	143
25	2,240	2,150	3,100	2,430	5,490	4,370	4,830	1,200	56	1,050	710	547
26	2,220	2,390	1,580	2,570	5,560	4,430	4,470	375	879	1,050	892	513
27	2,330	3,210	1,780	2,480	5,680	4,430	4,430	372	1,080	880	236	413
28	2,040	2,190	1,230	2,480	5,290	4,280	4,370	353	843	730	838	372
29	1,980	2,070	1,520	3,440	-------	4,070	4,270	349	305	401	116	502
30	1,220	2,150	2,060	3,600	-------	4,070	3,870	1,570	896	204	599	211
31	1,660	-------	2,150	3,610	-------	3,880	-------	1,470	-------	331	948	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,530	740	3,300	1.99	2.29
November	8,050	2,050	3,640	2.19	2.44
December	3,110	950	2,130	1.28	1.48
January	3,610	1,020	2,030	1.22	1.41
February	6,820	3,660	4,960	2.99	3.11
March	5,040	2,140	4,000	2.41	2.78
April	10,500	3,870	6,140	3.70	4.13
May	4,100	349	1,680	1.01	1.16
June	1,500	18	534	.322	.36
July	1,200	23	535	.322	.37
August	995	116	684	.412	.48
September	1,190	94	545	.328	.37
The year	10,500	18	2,490	1.50	20.38

APALACHICOLA RIVER BASIN

CHATTAHOOCHEE RIVER AT WEST POINT, GA.

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

DRAINAGE AREA.—3,550 square miles.

RECORDS AVAILABLE.—July 1896 to December 1910; January 1912 to September 1933.

DISCHARGE.—Maximum during year, 58,600 second-feet Dec. 30 (gage height, 21.74 feet); minimum, 1,080 second-feet Sept. 27 (gage height, 2.41 feet).

1896–1933: Maximum, 134,000 second-feet Dec. 10, 1919 (gage height, 30.0 feet); minimum, 224 second-feet Sept. 12, 1925 (gage height, 1.64 feet). Average, 35 years (1896–1910, 1912–33), 5,920 second-feet.

REMARKS.—Records fair. Discharge estimated Apr. 17–19. Slight diurnal fluctuation caused by power plants upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,490	3,270	4,530	42,400	6,200	6,880	11,900	5,040	3,440	3,520	2,720	5,700
2	2,050	7,750	3,990	28,900	6,200	6,700	11,900	4,880	3,280	3,120	2,480	5,040
3	1,840	11,000	3,720	13,000	6,200	6,360	8,360	5,360	3,280	3,040	3,200	3,520
4	1,710	6,820	3,540	10,800	6,020	6,200	7,240	6,200	3,040	8,370	2,880	2,800
5	1,710	4,260	3,360	9,980	6,020	6,200	6,360	5,860	2,960	5,700	3,280	2,480
6	2,320	3,450	3,270	9,160	5,860	6,020	6,360	6,700	2,880	3,360	3,440	2,160
7	4,170	3,180	3,270	8,560	6,360	6,880	6,200	6,200	2,800	2,720	2,480	2,080
8	3,720	3,090	3,540	8,360	17,800	7,060	6,200	14,600	2,720	2,480	2,160	2,400
9	2,830	3,540	3,360	9,160	20,800	6,700	6,880	13,200	2,720	2,320	2,000	2,560
10	2,240	5,720	3,180	12,600	18,600	6,880	6,540	9,570	3,200	2,240	1,890	2,400
11	1,980	5,530	4,080	12,100	13,900	6,200	6,200	7,600	3,600	2,240	1,810	2,240
12	1,810	3,990	12,600	10,600	8,750	6,020	6,200	6,360	3,840	2,720	1,810	2,400
13	1,750	3,360	22,200	8,750	7,780	5,860	5,700	6,020	3,360	3,360	1,900	2,640
14	1,670	3,000	24,900	7,970	7,240	5,860	5,530	5,530	2,960	3,200	1,840	2,160
15	1,710	2,830	28,000	7,600	7,060	5,860	5,700	5,040	3,200	2,880	1,840	1,920
16	9,380	2,740	30,600	7,240	6,880	5,860	6,200	4,720	2,720	3,040	1,840	1,840
17	21,600	2,660	33,000	6,880	6,700	5,700		4,720	2,560	3,200	1,870	2,160
18	17,400	2,830	33,400	6,880	12,600	5,530	7,240	4,400	2,480	3,200	2,320	2,240
19	16,600	6,270	27,100	6,700	21,100	7,060		4,240	2,320	3,600	2,320	1,840
20	13,100	6,080	17,400	6,540	24,500	25,100	6,200	4,080	2,320	2,960	2,720	1,620
21	6,080	6,270	14,300	6,360	27,600	24,800	6,700	3,920	2,240	3,440	2,560	1,440
22	4,260	5,900	9,380	6,360	18,100	14,200	6,020	3,840	2,160	3,280	2,160	1,360
23	3,630	4,260	8,520	6,200	13,500	10,400	5,860	3,920	2,080	3,920	1,810	1,270
24	3,180	3,630	8,720	6,200	9,980	7,970	6,020	3,840	2,160	3,920	1,620	1,240
25	3,000	3,720	13,100	10,400	8,560	7,240	9,570	3,840	2,640	3,440	1,680	1,210
26	2,830	11,400	22,800	12,800	8,160	7,240	7,970	3,760	4,240	2,800	1,840	1,180
27	2,920	13,600	28,300	10,400	7,780	6,880	6,700	3,840	6,200	2,640	2,480	1,150
28	3,000	10,700	40,600	8,750	7,240	6,540	6,020	4,240	5,200	3,760	2,320	1,150
29	2,830	7,940	53,300	7,240		6,360	5,530	4,400	5,530	3,760	2,400	2,000
30	2,830	5,530	58,000	6,540		6,020	5,360	4,240	3,920	4,080	5,700	1,680
31	2,660		50,300	6,200		6,020		3,840		3,280	6,020	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	21,600	1,670	4,820	1.36	1.57
November	13,600	2,660	5,480	1.54	1.72
December	58,000	3,180	18,600	5.24	6.04
January	42,400	6,200	10,400	2.93	3.38
February	27,600	5,860	11,300	3.18	3.31
March	25,100	5,530	8,020	2.26	2.61
April	11,900	5,360	6,900	1.94	2.16
May	14,600	3,760	5,610	1.58	1.82
June	6,200	2,080	3,200	.901	1.01
July	8,370	2,240	3,410	.961	1.11
August	6,020	1,620	2,500	.704	.81
September	5,700	1,150	2,200	.620	.69
The year	58,000	1,150	6,860	1.93	26.23

CHATTAHOOCHEE RIVER AT COLUMBUS, GA.

LOCATION.—Water-stage recorder at Central of Georgia Railway bridge in Columbus, Muscogee County, half a mile below Eagle and Phoenix Dam and 1¼ miles below City Mills Dam. Zero of gage is 185.25 feet above mean sea level.

DRAINAGE AREA.—4,670 square miles.

RECORDS AVAILABLE.—December 1912, August 1929 to September 1933.

DISCHARGE.—Maximum during year, 58,800 second-feet Dec. 30 (gage height, 31.12 feet); minimum, 948 second-feet Oct. 9 (gage height, 0.79 foot).

1912, 1929–33: Maximum, that of Dec. 30, 1932; minimum, 294 second-feet Oct. 23, Nov. 14, 1931 (gage height, 0.06 foot).

Maximum stage known, 53.2 feet Mar. 15, 1929 (discharge not determined).

REMARKS.—Records fair. Considerable diurnal fluctuation caused by several power dams upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,850	5,000	7,270	50,700	6,150	7,960	15,900	4,260	5,550	4,030	4,060	4,260
2	1,540	6,630	6,510	40,800	6,270	7,540	18,500	6,880	5,440	2,950	4,160	4,260
3	3,050	6,510	3,550	21,900	6,630	8,850	13,100	6,270	3,350	3,580	4,160	4,160
4	3,950	6,390	3,450	14,000	6,390	9,010	10,100	6,630	2,100	4,160	4,370	4,160
5	4,060	6,510	4,580	13,500	7,820	7,540	7,540	11,100	2,660	7,140	4,260	4,160
6	4,060	3,750	6,390	11,800	8,550	5,440	7,680	7,010	3,150	6,150	3,750	4,160
7	4,060	4,900	5,550	9,490	10,100	9,170	7,140	6,390	3,750	6,150	4,060	4,160
8	3,550	6,630	6,150	7,010	15,200	10,300	7,270	9,170	3,750	4,160	4,060	4,160
9	1,320	6,750	5,670	13,100	25,400	9,810	7,270	17,200	3,050	2,370	4,060	4,370
10	3,250	6,750	5,790	13,500	24,400	9,330	6,150	15,600	3,050	3,250	4,060	3,950
11	3,950	6,630	3,650	13,800	25,400	8,550	8,250	8,850	2,140	4,160	4,060	4,160
12	3,950	6,150	4,970	15,600	15,600	7,960	8,250	8,250	3,050	4,160	2,380	4,160
13	3,250	3,350	20,200	13,500	10,300	7,140	7,680	7,400	4,060	4,160	1,490	3,950
14	2,760	5,000	25,800	8,100	10,300	7,540	7,820	2,860	5,220	4,160	2,570	4,160
15	1,540	6,390	26,600	6,750	10,100	6,390	8,400	3,550	4,060	3,650	2,860	4,160
16	1,360	6,630	28,600	8,550	7,790	6,390	8,550	5,110	3,950	1,810	2,760	4,160
17	3,380	6,630	35,200	10,100	5,790	5,670	9,650	5,110	3,550	3,950	2,760	4,160
18	19,600	6,030	34,500	9,970	13,200	5,670	10,100	5,220	1,720	5,910	2,660	3,650
19	15,400	5,220	32,600	9,330	24,200	8,340	10,400	4,480	2,950	4,790	1,810	2,760
20	14,500	1,900	22,500	8,250	35,200	35,400	10,600	4,260	3,650	6,150	1,360	2,760
21	8,100	3,650	17,200	7,980	40,300	42,300	8,550	2,190	3,750	6,270	2,380	2,660
22	6,390	6,390	14,800	3,650	33,600	29,200	8,100	3,450	4,060	5,910	2,660	2,660
23	3,550	5,910	12,600	5,730	20,500	15,900	6,880	4,580	4,060	4,580	2,760	1,620
24	3,950	5,000	11,400	10,400	14,500	11,400	8,700	4,370	3,650	3,950	2,860	1,360
25	4,900	4,790	14,500	14,700	11,900	10,100	11,800	4,370	1,670	4,280	2,660	2,280
26	6,150	6,150	23,200	16,600	6,750	8,700	12,300	4,900	3,150	4,370	1,860	2,660
27	6,030	12,100	33,400	15,000	11,100	8,550	11,600	6,150	4,060	4,260	1,440	1,860
28	6,150	14,500	42,000	13,600	13,000	9,970	8,550	3,150	4,060	4,280	2,480	1,540
29	5,220	8,400	51,000	11,600	-------	7,270	5,790	4,260	4,160	4,160	2,760	1,580
30	1,760	8,550	57,100	9,970	-------	6,630	3,650	6,150	4,160	4,060	3,050	1,320
31	3,350	-------	56,000	7,720	-------	7,960	-------	5,790	-------	4,060	4,370	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	19,600	1,320	5,090	1.09	1.26
November	14,500	1,900	6,310	1.35	1.51
December	57,100	3,540	20,100	4.30	4.96
January	50,700	3,650	13,400	2.87	3.31
February	40,300	5,790	15,200	3.25	3.38
March	42,300	5,440	11,000	2.36	2.72
April	18,500	3,650	9,210	1.97	2.20
May	17,200	2,190	6,290	1.35	1.56
June	5,550	1,670	3,570	.764	.85
July	7,140	1,810	4,420	.946	1.09
August	4,370	1,360	3,060	.655	.76
September	4,370	1,320	3,310	.709	.79
The year	57,100	1,320	8,400	1.80	24.39

CHATTAHOOCHEE RIVER AT COLUMBIA, ALA.

LOCATION.—Water-stage recorder in T. 4 N., R. 29 E., at highway bridge a quarter of a mile below Central of Georgia Railway and half a mile east of Columbia.

DRAINAGE AREA.—8,040 square miles.

RECORDS AVAILABLE.—July 1928 to September 1933.

DISCHARGE.—Maximum during year, 63,800 second-feet Mar. 22 (gage height, 37.15 feet); minimum, 2,230 second-feet Sept. 26; minimum gage height, 3.12 feet Oct. 11.

1928–33: Maximum, 203,000 second-feet Mar. 18, 1929 (gage height, 56.05 feet); minimum, 1,220 second-feet Oct. 26, 1931 (gage height, 1.79 feet).

REMARKS.—Records good except those partly estimated June 5–9, which are fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,130	10,400	10,900	57,400	14,600	18,700	21,300	8,910	8,070	6,040	5,600	5,380
2	5,020	9,190	9,840	58,000	16,800	16,000	34,600	7,470	7,470	6,390	5,490	6,630
3	4,580	8,560	9,190	54,100	15,900	12,300	31,200	9,030	7,230	5,820	5,490	6,630
4	3,050	8,930	7,720	41,600	13,600	13,500	24,500	9,880	6,870	4,720	5,490	6,040
5	3,850	8,680	5,570	23,600	12,400	13,200	18,100	9,750	4,940	4,940	5,600	5,710
6	5,350	8,560	5,130	18,200	12,100	12,500	14,600	11,600	3,850	6,150	6,150	5,490
7	6,340	8,200	6,910	16,900	12,300	13,600	13,900	11,400	4,390	7,830	6,150	5,710
8	5,130	5,900	8,320	14,600	21,500	19,000	13,000	9,880	4,500	7,470	5,600	6,150
9	5,020	7,140	8,080	12,900	27,100	18,700	12,500	9,880	5,160	6,870	5,600	6,150
10	4,250	8,560	8,200	14,600	31,000	16,800	14,800	16,200	4,500	5,270	5,600	5,710
11	2,750	8,560	7,600	17,400	31,800	14,900	17,800	17,800	4,610	4,060	5,490	5,710
12	3,550	8,440	7,840	18,100	36,200	13,500	24,800	14,400	4,500	4,610	5,600	5,380
13	4,690	8,080	5,900	20,300	32,000	12,700	20,900	11,000	4,170	6,150	5,930	5,710
14	4,580	7,260	11,900	20,200	21,000	11,700	17,200	10,700	4,610	6,040	4,610	5,710
15	4,150	5,240	24,200	15,900	17,200	12,500	19,000	8,070	5,930	5,930	3,550	5,270
16	4,360	6,560	27,100	12,300	16,200	10,600	20,700	5,380	6,270	5,820	5,160	5,270
17	4,050	7,960	29,800	11,300	15,500	10,400	19,300	5,930	5,490	5,490	6,390	5,160
18	3,650	8,080	34,200	13,200	13,100	9,970	16,700	7,470	5,270	6,150	7,230	5,050
19	9,060	8,560	36,400	13,200	16,500	10,200	15,900	7,110	4,610	7,830	8,670	5,050
20	17,400	7,720	36,000	13,100	30,600	34,000	15,700	6,990	3,450	8,910	7,230	4,500
21	15,300	6,450	30,000	12,000	44,400	60,600	15,600	6,270	3,950	8,910	5,490	3,650
22	13,200	4,250	21,700	11,600	49,500	63,200	13,900	5,930	4,940	10,100	3,950	3,550
23	8,680	5,900	18,200	9,970	47,900	55,600	13,000	4,390	5,160	3,390	3,950	3,450
24	7,140	7,600	16,000	9,840	37,200	36,800	12,000	5,380	5,380	8,070	4,390	3,450
25	4,800	7,480	14,800	16,800	24,600	22,000	12,600	6,270	5,490	6,750	4,280	2,770
26	5,130	7,370	20,700	24,200	20,000	19,000	16,400	6,150	4,940	6,040	4,170	2,320
27	6,560	9,060	29,600	26,100	14,800	16,800	16,400	6,270	3,850	6,040	3,950	2,770
28	7,370	11,400	38,700	22,900	13,800	15,500	16,500	8,070	4,830	6,270	3,350	3,450
29	7,260	16,200	44,200	19,500	-------	15,700	15,100	8,670	6,150	6,040	2,860	3,050
30	7,140	13,500	49,100	16,800	-------	13,900	11,400	6,390	5,820	5,930	3,250	2,590
31	7,480	-------	53,600	15,300	-------	12,500	-------	8,070	-------	5,710	3,950	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	17,400	2,750	6,320	0.786	0.91
November	16,200	4,250	8,330	1.04	1.16
December	53,600	5,130	20,600	2.56	2.95
January	58,000	9,840	21,000	2.61	3.01
February	49,500	12,100	23,600	2.94	3.06
March	63,200	9,970	20,200	2.51	2.89
April	34,600	11,400	17,600	2.19	2.44
May	17,800	4,390	8,730	1.09	1.26
June	8,070	3,450	5,210	.648	.72
July	10,100	4,060	6,510	.810	.93
August	8,670	2,860	5,170	.643	.74
September	6,630	2,320	4,780	.595	.66
The year	63,200	2,320	12,300	1.53	20.73

APALACHICOLA RIVER NEAR RIVER JUNCTION, FLA.

LOCATION.—Water-stage recorder in sec. 5, T. 3 N., R. 6 W., at Louisville & Nashville Railroad bridge 1 mile below confluence of Flint and Chattahoochee Rivers and 1½ miles west of River Junction. Zero of gage is 44.90 feet above mean sea level.

DRAINAGE AREA.—17,100 square miles.

RECORDS AVAILABLE.—December 1928 to September 1933.

DISCHARGE.—Maximum during year, 73,900 second-feet Mar. 24 (gage height, 19.53 feet); minimum, 7,400 second-feet Sept. 27 (gage height, 0.07 foot).

1928–33: Maximum, 293,000 second-feet Mar. 20, 1929 (gage height, 34.70 feet); minimum, 5,120 second-feet Nov. 5, 11, 1931.

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,700	15,800	20,600	59,500	34,300	43,400	39,700	29,200	17,900	13,100	13,800	10,300
2	10,700	17,900	19,200	64,400	34,300	44,900	45,600	26,500	18,200	13,300	13,500	11,500
3	10,500	16,700	18,200	67,200	35,200	42,800	49,200	24,800	17,700	13,300	13,300	12,500
4	9,900	16,200	17,400	66,500	34,300	39,400	48,300	25,700	17,400	12,900	13,100	12,500
5	9,340	16,700	16,000	59,500	32,300	37,100	44,200	25,100	16,700	11,900	12,900	11,900
6	10,100	17,000	14,200	49,200	30,900	33,400	40,000	24,300	14,900	11,900	13,100	12,100
7	11,100	17,000	13,300	43,400	30,600	32,900	37,100	25,900	13,800	13,100	13,100	12,300
8	10,900	16,200	14,900	39,700	32,000	34,600	35,200	24,600	14,000	14,200	12,700	13,300
9	10,700	14,400	15,800	35,500	38,700	36,800	34,300	23,500	14,000	14,200	12,300	13,800
10	10,300	15,300	15,600	32,000	42,000	36,200	34,000	24,600	13,100	13,500	12,300	13,500
11	9,340	16,200	15,600	31,400	45,300	34,900	34,900	28,900	12,700	12,300	12,500	12,900
12	8,620	16,000	14,900	31,700	47,500	33,700	38,400	29,500	12,700	11,100	12,300	12,900
13	8,980	15,800	14,600	32,300	50,900	32,600	41,400	26,500	12,500	11,600	12,300	14,000
14	9,900	15,300	13,500	33,700	48,700	31,700	40,000	25,100	12,300	12,900	12,100	14,200
15	9,700	14,000	21,900	32,900	44,200	30,600	40,300	25,100	12,700	13,100	11,300	14,000
16	9,700	12,300	30,000	29,200	41,000	29,500	42,000	22,500	14,200	13,100	10,700	13,500
17	9,520	13,500	32,900	27,000	40,000	27,300	42,400	19,600	14,600	13,100	12,300	13,800
18	9,160	14,600	35,800	25,700	38,700	26,200	41,400	18,600	14,200	12,900	13,800	12,900
19	8,980	15,100	39,400	27,000	37,100	24,800	39,400	19,200	14,200	13,800	14,900	11,300
20	17,400	14,900	41,400	27,300	41,000	30,600	38,400	18,200	13,100	16,000	15,600	10,900
21	22,200	14,000	41,700	26,700	49,600	47,900	37,700	17,400	12,100	16,500	13,800	10,500
22	21,400	12,700	38,400	24,800	56,200	58,900	36,200	16,500	12,100	17,400	12,100	9,520
23	19,900	11,300	33,700	24,000	61,300	68,600	34,000	15,800	12,500	19,200	11,300	9,340
24	17,200	12,700	30,900	21,400	63,100	73,100	32,300	14,900	12,500	19,200	11,300	9,160
25	15,800	14,200	28,100	22,700	56,700	65,800	30,600	14,900	12,700	17,900	11,300	8,800
26	13,800	14,400	27,600	30,900	49,600	55,700	31,100	14,900	12,700	16,200	11,100	7,900
27	12,900	14,200	32,900	36,200	46,000	49,600	32,600	14,900	12,100	15,300	10,900	7,400
28	13,500	15,600	39,700	38,000	42,800	45,600	33,200	15,100	11,300	15,600	10,300	7,900
29	14,200	18,600	45,300	37,700	-------	43,400	33,400	17,200	12,300	15,800	9,340	8,620
30	14,000	22,500	49,600	36,800	-------	41,700	32,300	17,900	13,100	15,600	8,980	8,260
31	13,800	-------	54,700	35,500	-------	39,000	-------	16,500	-------	15,100	9,520	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	22,200	8,620	12,400	0.725	0.84
November	22,500	11,300	15,400	.901	1.01
December	54,700	13,300	27,300	1.60	1.84
January	67,200	21,400	37,100	2.17	2.50
February	63,100	30,600	43,000	2.51	2.61
March	73,100	24,800	41,100	2.40	2.77
April	49,200	30,600	38,000	2.22	2.48
May	29,500	14,900	21,400	1.25	1.44
June	18,200	11,300	13,800	.807	.90
July	19,200	11,100	14,400	.842	.97
August	15,600	8,980	12,200	.713	.82
September	14,200	7,400	11,400	.667	.74
The year	73,100	7,400	23,800	1.39	18.92

FLINT RIVER AT MONTEZUMA, GA.

LOCATION.—Chain gage at highway bridge half a mile below Buck Creek and 1 mile northwest of Montezuma, Macon County. Zero of gage is 257.4 feet above mean sea level.

DRAINAGE AREA.—2,920 square miles.

RECORDS AVAILABLE.—July 1930 to June 1933 (discontinued).

DISCHARGE.—Maximum during period, 19,000 second-feet Feb. 28 (gage height, 16.68 feet); minimum, 635 second-feet Oct. 14, 15; minimum gage height, 0.90 foot Oct. 15.

1930–33: Maximum, 23,100 second-feet Nov. 20, 1930 (gage height, 17.80 feet); minimum, 455 second-feet Oct. 21, 28, 1931 (gage height, 0.51 foot).

REMARKS.—Records good. Flow regulated by hydroelectric plant above station

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1	995	1,560	3,340	12,600	4,310	5,590	4,030	3,670	2,260
2	1,040	2,380	2,860	12,400	4,310	4,790	4,950	3,160	1,960
3	995	3,160	2,560	11,400	4,470	4,390	5,850	2,860	1,720
4	815	2,620	2,380	10,200	4,310	3,950	6,350	2,740	1,670
5	770	2,140	2,200	7,970	3,950	3,810	6,050	2,620	1,500
6	905	2,020	2,020	5,510	3,600	3,600	5,270	2,560	1,400
7	950	1,840	2,020	4,160	3,280	3,880	4,550	2,500	1,290
8	995	1,670	1,960	3,740	4,470	4,470	4,090	2,440	1,240
9	950	1,620	1,960	3,530	6,150	5,110	3,810	2,500	1,190
10	860	1,560	2,020	3,740	7,150	4,950	3,740	3,340	1,190
11	725	1,780	2,020	4,550	8,330	4,470	3,810	4,630	1,560
12	725	1,780	2,080	4,950	8,590	3,950	3,810	5,430	2,980
13	680	1,670	2,020	5,270	8,330	3,600	3,740	5,350	3,530
14	635	1,620	2,200	5,510	9,010	3,460	3,460	3,220	3,400
15	680	1,620	2,500	5,190	9,010	3,340	3,340	2,560	3,100
16	1,450	1,450	3,400	4,390	7,250	3,280	3,460	2,260	2,320
17	2,860	1,400	4,390	3,740	5,590	3,160	3,740	2,260	2,080
18	4,160	1,400	5,110	3,400	5,030	3,100	3,880	1,960	1,720
19	4,790	1,560	5,590	3,220	5,270	3,280	3,600	1,780	1,500
20	5,190	1,900	5,950	3,100	6,850	4,390	3,340	1,720	1,340
21	5,350	2,140	5,950	3,040	9,850	6,250	3,220	1,780	1,240
22	4,160	2,200	5,670	2,920	12,800	8,210	3,280	1,720	1,190
23	2,800	2,080	5,190	2,980	18,700	11,500	3,280	1,620	1,090
24	2,260	2,020	4,090	2,980	17,500	13,800	3,100	1,500	1,040
25	1,960	1,960	3,740	3,600	14,900	12,400	3,220	1,560	1,190
26	1,560	2,320	4,230	4,710	12,000	9,990	3,740	1,670	1,140
27	1,400	2,800	5,590	5,850	9,150	7,250	4,310	1,670	1,240
28	1,290	3,810	6,750	6,650	7,050	5,510	4,470	2,320	1,400
29	1,290	4,230	8,090	6,950	-------	4,470	4,310	2,800	1,560
30	1,400	3,880	9,850	6,450	-------	4,020	4,090	2,500	1,450
31	1,400	-------	12,000	5,110	-------	3,810	-------	2,500	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,350	635	1,810	0.620	0.71
November	4,230	1,400	2,140	.733	.82
December	12,000	1,960	4,180	1.43	1.65
January	12,600	2,920	5,480	1.88	2.17
February	18,700	3,280	7,900	2.71	2.82
March	13,800	3,100	5,410	1.85	2.13
April	6,350	3,100	4,070	1.39	1.55
May	5,430	1,500	2,620	.897	1.03
June	3,530	1,040	1,720	.589	.66

FLINT RIVER AT OAKFIELD, GA.

LOCATION.—Water-stage recorder at Georgia Southwestern & Gulf Railroad bridge 1 mile southwest of Oakfield, Worth County.
DRAINAGE AREA.—3,840 square miles.
RECORDS AVAILABLE.—January 1930 to June 1933 (discontinued).
DISCHARGE.—Maximum during period, 21,600 second-feet Feb. 27 (gage height, 17.30 feet); minimum, 771 second-feet Oct. 8 (gage height, 1.73 feet).
1930–33: Maximum, that of Feb. 27, 1933; minimum, 320 second-feet July 14, 1930 (gage height, 0.98 foot).
REMARKS.—Records good. Considerable diurnal fluctuation caused by operations at Crisp County Power Co.'s dam 8 miles above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1	1,980	2,250	4,570	9,380	8,540	17,200	5,700	5,700	3,080
2	1,840	2,300	4,570	8,010	8,120	14,000	5,180	5,440	2,970
3	1,800	2,600	4,930	10,100	7,560	9,100	5,050	4,090	2,750
4	1,760	3,300	4,690	16,400	7,420	6,350	6,090	3,410	2,500
5	1,760	3,410	3,850	14,700	7,140	7,280	7,560	3,520	2,300
6	1,760	3,080	3,300	14,000	6,610	7,140	8,260	3,520	2,120
7	1,320	2,970	3,080	11,600	6,090	6,090	7,840	3,410	1,980
8	1,200	2,860	2,860	8,680	6,090	5,830	7,980	3,410	1,890
9	1,440	2,650	2,800	6,740	6,480	6,090	5,830	2,970	1,760
10	1,980	2,500	2,750	4,800	7,560	6,350	6,220	2,550	1,800
11	1,940	2,400	2,700	5,000	8,680	6,220	5,570	3,630	1,840
12	1,580	2,400	2,450	5,720	9,380	6,740	5,570	6,090	1,940
13	1,480	2,350	2,970	4,590	10,200	6,220	4,810	7,140	2,500
14	1,440	2,400	2,400	5,600	11,200	5,440	4,930	7,420	3,300
15	1,400	2,350	2,650	7,280	12,000	5,180	4,810	6,350	3,740
16	1,440	2,200	3,970	5,810	11,600	4,810	5,050	4,330	3,630
17	1,620	2,200	4,090	7,560	11,100	4,330	4,570	3,190	3,300
18	2,120	2,160	4,570	6,610	10,500	3,970	5,310	2,860	2,860
19	1,760	2,160	5,310	5,830	9,380	4,090	4,810	2,650	2,450
20	2,750	2,200	5,960	5,050	8,960	5,180	4,210	2,450	2,160
21	5,440	2,400	6,350	4,690	9,100	6,610	4,810	2,300	1,980
22	6,870	2,550	5,700	4,450	7,840	8,120	5,180	2,250	1,840
23	7,280	2,600	4,450	4,450	2,800	9,380	4,810	2,200	1,760
24	5,700	2,450	5,180	4,090	11,000	11,000	4,330	2,070	-------
25	4,330	2,200	6,610	3,970	17,100	12,000	4,210	1,980	-------
26	3,410	2,200	7,700	5,180	19,200	13,800	5,180	2,020	-------
27	2,860	2,450	4,570	7,560	21,100	14,400	5,830	2,070	-------
28	2,450	3,080	4,690	7,980	18,000	13,200	5,830	2,350	-------
29	2,250	3,740	7,560	8,260	-------	10,200	5,960	2,600	-------
30	2,120	4,210	10,100	8,400	-------	9,100	5,830	2,970	-------
31	2,120	-------	9,520	8,540	-------	7,420	-------	3,190	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,280	1,200	2,550	0.664	0.77
November	4,210	2,160	2,620	.682	.76
December	10,100	2,400	4,740	1.23	1.42
January	16,400	3,970	7,450	1.94	2.24
February	21,100	2,800	10,000	2.60	2.71
March	17,200	3,970	8,160	2.13	2.46
April	8,260	4,210	5,580	1.45	1.62
May	7,420	1,980	3,550	.924	1.07
June 1–23	3,740	1,760	2,450	.638	.55

FLINT RIVER AT ALBANY, GA.

LOCATION.—Water-stage recorder at Georgia Northern Railway bridge in Albany, Dougherty County. Zero of gage is 150.04 feet above mean sea level.

DRAINAGE AREA.—5,160 square miles.

RECORDS AVAILABLE.—February 1897 to June 1921, September 1929 to September 1933.

DISCHARGE.—Maximum during year, 23,800 second-feet Feb. 27 (gage height, 18.58 feet); minimum, 635 second-feet Sept. 27 (gage height, 1.90 feet).

1897–1921, 1929–33: Maximum gage height, 32.4 feet (United States Weather Bureau datum) Mar. 25, 1897 (discharge not determined); minimum discharge, 284 second-feet Sept. 7, 1930 (gage height, 1.26 feet). Average, 22 years (1902–20, 1929–33), 6,630 second-feet.

Maximum stage known, 37.84 feet (present datum) Mar. 21, 1925 (discharge, 92,000 second-feet).

REMARKS.—Records good. Considerable diurnal fluctuation caused by power plants above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,640	3,310	5,680	13,300	11,500	20,000	8,870	7,840	4,070	2,350	3,170	2,140
2	1,900	2,900	5,320	9,420	11,200	17,100	8,020	7,300	4,310	2,240	3,030	2,170
3	2,300	2,960	6,040	11,100	11,000	14,400	7,120	5,320	4,310	2,640	2,580	1,720
4	2,240	3,380	5,860	18,500	10,700	7,840	8,530	4,150	3,830	1,990	2,700	2,960
5	1,990	2,520	4,470	16,600	10,700	8,190	9,040	4,310	3,530	2,460	2,140	3,310
6	2,240	3,380	4,150	16,400	9,550	10,700	11,000	4,470	3,100	2,090	1,420	4,970
7	2,190	3,910	3,910	14,200	8,700	8,190	11,000	4,150	2,700	1,940	1,960	4,310
8	2,040	3,910	3,830	11,000	9,380	7,840	9,040	5,140	2,300	2,830	2,390	3,910
9	1,340	3,460	3,760	7,300	9,380	8,360	7,660	4,310	2,140	2,460	2,260	3,380
10	2,350	3,030	3,910	6,580	10,400	8,700	8,700	3,530	2,090	2,190	2,240	2,520
11	2,460	3,100	2,900	5,140	12,800	9,720	7,300	3,760	2,190	2,300	2,000	6,760
12	2,140	3,030	3,680	8,020	13,000	9,890	8,020	6,040	2,700	2,350	1,980	6,580
13	1,620	2,640	3,680	7,660	13,900	10,900	7,300	8,190	2,760	2,460	1,780	4,970
14	1,900	2,830	3,680	5,140	14,800	7,480	4,800	8,020	3,600	2,830	2,700	4,630
15	1,900	2,900	3,240	9,720	16,400	7,120	6,940	8,020	3,990	3,030	2,520	5,140
16	1,900	2,900	3,600	7,300	14,800	6,580	7,120	4,630	4,150	2,580	2,820	4,560
17	2,190	2,830	4,800	8,360	14,800	6,220	6,940	4,070	4,150	3,240	2,410	810
18	2,830	2,350	5,860	8,530	14,600	5,140	7,660	3,600	3,830	3,530	2,290	1,890
19	3,030	2,580	6,580	7,840	13,600	6,400	10,200	3,030	3,460	3,380	2,430	1,960
20	2,700	2,460	7,300	6,220	11,700	7,660	6,040	2,960	2,830	3,460	2,190	2,000
21	4,970	3,100	7,300	5,500	13,000	10,200	6,580	2,960	2,190	4,800	3,240	1,920
22	7,480	3,100	7,480	5,860	13,000	12,800	7,300	2,460	2,190	6,220	3,100	1,870
23	8,020	3,380	6,580	5,500	6,400	14,200	5,860	2,240	2,190	5,320	2,700	1,060
24	7,300	3,380	6,940	5,680	12,300	15,500	6,040	2,240	2,300	4,150	2,730	744
25	4,630	3,380	5,860	7,480	18,900	16,400	5,680	2,240	2,140	3,990	2,410	1,360
26	3,830	2,700	10,200	7,660	21,200	16,600	6,580	2,460	1,900	4,800	1,980	1,620
27	3,760	2,900	6,760	11,800	23,400	17,400	8,190	2,760	1,900	4,970	1,100	1,420
28	3,310	3,600	5,860	12,300	21,600	16,400	8,360	3,240	2,190	5,140	2,030	1,520
29	3,240	3,990	10,100	13,100	-------	15,300	8,020	3,460	2,240	6,040	2,160	1,440
30	2,350	4,800	13,300	11,500	-------	12,000	7,480	3,530	2,240	2,520	2,170	1,230
31	2,300	-------	13,000	11,400	-------	9,720	-------	3,830	-------	3,170	2,110	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,020	1,340	3,070	0.595	0.69
November	4,800	2,350	3,160	.612	.68
December	13,300	2,900	5,990	1.16	1.34
January	18,500	5,140	9,550	1.85	2.13
February	23,400	6,400	13,300	2.58	2.69
March	20,000	5,140	11,100	2.15	2.48
April	11,000	4,800	7,710	1.49	1.66
May	8,190	2,240	4,330	.839	.97
June	4,310	1,900	2,920	.566	.63
July	6,220	1,940	3,340	.647	.75
August	3,240	1,100	2,350	.455	.52
September	6,760	744	2,830	.548	.61
The year	23,400	744	5,760	1.12	15.15

FLINT RIVER AT BAINBRIDGE, GA.

LOCATION.—Water-stage recorder at Decatur County Memorial Highway Bridge, in Bainbridge, Decatur County. Zero of gage is 58.06 feet above mean sea level.

DRAINAGE AREA.—7,290 square miles.

RECORDS AVAILABLE.—January 1908 to December 1913, December 1928 to September 1933.

DISCHARGE.—Maximum during year, 25,900 second-feet Mar. 1 (gage height, 20.80 feet); minimum, 2,780 second-feet Sept. 26 (gage height, 4.68 feet).

1908–13, 1928–33: Maximum, 83,200 second-feet Mar. 21, 1929 (gage height, 37.73 feet); minimum, 2,300 second-feet Dec. 7, 1931 (gage height, 3.80 feet). Maximum stage known, 40.9 feet (present datum) Jan. 24, 1925 (discharge, 101,000 second-feet).

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,030	4,130	5,940	14,900	14,600	25,700	15,900	11,800	7,150	4,430	5,430	4,030
2	4,330	4,930	6,600	15,100	14,500	24,800	14,500	12,100	7,260	4,430	5,530	4,030
3	4,030	5,030	6,490	13,600	14,300	22,900	13,900	13,000	7,370	4,530	5,430	4,030
4	3,630	5,230	6,710	14,200	14,300	19,600	13,400	10,300	7,260	4,530	5,030	3,830
5	3,930	5,430	7,040	17,800	14,300	14,600	14,000	8,990	6,930	4,430	4,930	4,330
6	3,730	5,630	6,160	18,200	14,300	13,300	14,200	8,750	6,490	4,430	4,630	4,830
7	3,830	5,430	6,050	17,600	13,700	14,600	14,900	8,750	6,160	4,330	4,230	5,630
8	3,930	5,530	5,730	16,400	13,100	13,400	15,100	8,270	5,730	4,030	3,930	6,050
9	3,930	5,630	5,530	14,200	13,100	13,000	14,000	8,990	5,430	4,630	4,630	5,630
10	3,530	5,430	5,530	11,500	13,100	13,300	12,800	8,270	5,130	4,630	4,630	5,530
11	3,430	4,930	5,630	10,000	14,000	13,600	13,100	7,700	4,930	4,230	4,630	4,830
12	4,030	4,830	5,230	8,990	15,600	14,000	12,700	7,600	4,930	4,230	4,330	6,930
13	3,730	4,830	5,330	10,100	16,400	14,300	13,100	8,510	5,130	4,230	4,130	7,370
14	3,340	4,530	5,430	10,300	17,100	14,300	13,000	10,300	5,330	4,430	4,030	6,820
15	3,340	4,430	5,530	9,110	17,800	12,500	11,900	10,400	5,830	4,730	4,530	6,380
16	3,340	4,530	5,130	10,800	18,900	11,600	13,000	10,400	6,160	5,030	4,730	6,490
17	3,340	4,530	5,330	10,500	18,500	11,000	13,600	8,750	6,270	4,930	5,030	6,600
18	3,630	4,430	6,050	10,400	18,300	10,500	13,400	7,810	6,380	5,130	4,830	4,230
19	4,030	4,330	6,930	10,800	18,200	9,750	13,700	7,370	6,160	5,430	4,730	3,530
20	4,630	4,130	7,480	10,400	17,600	10,400	14,600	6,820	5,940	5,530	4,530	3,930
21	4,430	4,430	8,270	9,360	16,500	11,900	12,700	6,490	5,430	5,630	4,430	3,830
22	5,230	4,430	8,390	8,390	16,900	14,600	12,100	6,380	4,930	6,270	4,930	3,830
23	7,040	4,730	8,510	8,750	17,100	17,800	12,200	6,050	4,730	7,700	5,330	3,630
24	7,700	4,830	7,590	8,270	14,000	20,000	11,400	5,630	4,630	7,810	4,930	3,340
25	7,700	4,930	7,810	8,630	15,200	21,100	11,100	5,530	4,630	7,370	4,830	2,960
26	6,600	5,030	7,920	9,880	20,000	21,700	10,500	5,430	4,630	6,820	4,530	2,840
27	5,630	4,630	9,490	10,700	22,900	21,700	10,800	5,530	4,330	7,150	4,230	3,100
28	5,430	4,630	9,230	13,100	24,800	22,100	11,800	5,730	4,330	7,260	3,730	3,180
29	5,230	5,030	8,510	14,600	-------	21,700	12,200	6,270	4,430	7,370	3,530	3,100
30	5,030	5,430	11,500	15,600	-------	20,300	11,900	6,600	4,430	7,590	3,930	3,100
31	4,730	-------	14,300	14,900	-------	18,000	-------	6,820	-------	6,160	4,030	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,700	3,340	4,530	0.621	0.72
November	5,630	4,130	4,870	.668	.75
December	14,300	5,130	7,140	.979	1.13
January	18,200	8,270	12,200	1.67	1.92
February	24,800	13,100	16,400	2.25	2.34
March	25,700	9,750	16,400	2.25	2.59
April	15,900	10,500	13,000	1.78	1.99
May	13,000	5,430	8,110	1.11	1.28
June	7,370	4,330	5,620	.771	.86
July	7,810	4,030	5,470	.750	.86
August	5,530	3,530	4,590	.630	.73
September	7,370	2,840	4,600	.631	.70
The year	25,700	2,840	8,530	1.17	15.87

CHOCTAWHATCHEE RIVER BASIN

CHOCTAWHATCHEE RIVER AT CARYVILLE, FLA.

LOCATION.—Water-stage recorder in T. 4 N., R. 16 W., at highway bridge 300 feet below Louisville & Nashville Railroad bridge and three-quarters of a mile west of Caryville. Zero of gage is 39.03 feet above mean sea level.
DRAINAGE AREA.—3,490 square miles.
RECORDS AVAILABLE.—August 1929 to September 1933.
DISCHARGE.—Maximum during year, 35,800 second-feet Mar. 24 (gage height, 13.58 feet); minimum, 1,540 second-feet Sept. 28, 29, 30.
1929–33: Maximum, 49,100 second-feet Oct. 4, 1929 (gage height, 14.83 feet); minimum, 865 second-feet Oct. 28, 1931 (gage height, 0.11 foot).
REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,500	4,930	3,760	11,700	7,860	7,860	9,740	8,060	2,900	3 680	6,400	2,580
2	3,600	8,490	3,520	10,300	8,060	7,460	9,210	7,460	2,700	4 020	5,160	3,600
3	2,960	12,900	3,440	9,210	9,210	7,270	9,740	6,900	2,460	4 400	4,400	3,930
4	2,580	15,700	3,370	8,270	10,600	7,080	11,300	6,400	2,300	4.500	3,840	3,930
5	2,760	14,200	3,300	7,460	12,100	6,560	13,300	5,940	2,190	4 020	3,680	3,930
6	2,760	11,300	3,160	6,730	11,700	5,940	14,700	5,530	2,040	3 090	3,840	3,840
7	3,930	8,960	3,230	6,240	10,300	6,400	15,200	5,280	1,990	2.580	4,600	3,600
8	3,600	7,460	3,760	5,800	9,210	7,860	15,200	5,160	1,900	2.300	5,400	3,370
9	2,960	6,400	4,930	5,530	8,960	9,470	14,700	4,930	2,140	2.090	5,160	3,520
10	2,460	5,530	5,400	5,400	9,470	10,600	14,200	4,710	2,300	1.900	4,300	3,680
11	2,190	4,930	5,040	5,280	11,000	10,300	14,700	4,400	2,520	1.990	3,760	3,440
12	2,040	4,500	4,710	5,280	11,300	8,960	15,700	4,200	2,640	2.240	3,520	3,090
13	1,940	4,400	4,710	6,090	11,300	7,860	16,800	3,930	2,760	2.580	4,020	2,830
14	1,810	4,200	4,600	7,270	11,300	6,900	19,200	3,760	2,640	3 020	4,820	2,700
15	1,810	3,840	4,500	7,660	10,600	6,400	24,000	3,600	2,240	3 440	4,930	2,460
16	2,190	3,680	4,710	7,270	9,740	5,940	28,300	3,370	1,990	4.200	4,400	2,360
17	3,440	3,600	5,040	6,400	8,960	5,530	27,400	3,300	1,810	4 710	4,110	2,300
18	4,500	3,520	5,660	5,660	8,960	5,280	24,800	3,160	1,760	5 530	4,300	2,190
19	4,710	3,840	6,560	5,280	8,720	5,160	21,800	3,020	1,680	7,660	4,200	2,040
20	4,110	4,710	6,730	5,040	8,960	6,240	18,000	2,830	1,580	9 210	4,600	1,990
21	3,600	5,040	6,090	4,820	8,960	10,000	14,700	2,700	1,580	10 000	5,040	1,900
22	3,090	4,600	5,400	4,600	9,210	18,000	12,100	2,520	1,580	10 600	4,930	1,760
23	2,700	4,110	4,930	4,600	9,470	31,000	11,000	2,520	1,580	11.000	4,820	1,720
24	2,410	3,840	4,710	4,710	9,740	34,800	10,000	2,520	1,630	11.700	5,040	1,680
25	2,190	3,680	4,600	5,400	9,470	32,800	9,210	2,520	1,810	12.100	4,820	1,630
26	2,300	3,680	5,400	7,080	9,210	28,300	8,490	2,700	2,520	12.100	4,110	1,630
27	3,300	4,110	7,860	8,960	8,960	24,000	8,060	2,700	3,300	11.700	3,440	1,580
28	4,400	4,500	11,300	11,000	8,490	19,800	7,860	2,640	3,020	11.700	3,090	1,540
29	4,500	4,300	12,900	11,300	-------	16,200	8,060	2,700	2,900	11.000	2,760	1,540
30	3,930	4,020	14,200	10,000	-------	12,900	8,270	2,580	3,370	10 000	2,640	1,540
31	3,440	-------	13,300	8,720	-------	10,600	-------	2,700	-------	8 270	2,460	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,710	1,810	3,120	0.894	1.03
November	15,700	3,520	5,970	1.71	1.91
December	14,200	3,160	5,830	1.67	1.92
January	11,700	4,600	7,070	2.03	2.34
February	12,100	7,860	9,710	2.78	2.90
March	34,800	5,160	12,400	3.55	4.09
April	28,300	7,860	14,500	4.15	4.63
May	8,060	2,520	4,020	1.15	1.33
June	3,370	1,580	2,260	.648	.72
July	12,100	1,900	6,370	1.83	2.11
August	6,400	2,460	4,280	1.23	1.42
September	3,930	1,540	2,600	.745	.83
The year	34,800	1,540	6,480	1.86	25.23

ESCAMBIA RIVER BASIN

CONECUH RIVER NEAR ANDALUSIA, ALA.

LOCATION.—Water-stage recorder in T. 3 N., R. 15 E., at Simmons Bridge, 7½ miles southwest of Andalusia.

DRAINAGE AREA.—1,300 square miles.

RECORDS AVAILABLE.—August 1904 to December 1919, September 1929 to September 1933.

DISCHARGE.—Maximum during year, 18,400 second-feet Mar. 24 (gage height, 30.43 feet); minimum, 47 second-feet Oct. 2 (gage height, 0.43 foot).

1904–19, 1929–33: Maximum (estimated), 26,000 second-feet Mar. 18, 1913; minimum, that of Oct. 2, 1932; minimum gage height, 0.39 foot July 7, 1930. Average, 19 years (1904–19, 1929–33), 1,850 second-feet.

Maximum stage known, 47.64 feet Mar. 15, 1929 (discharge, 154,000 second-feet).

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

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	340	3,710	750	2,680	3,360	4,040	6,020	2,440	572	2,200	750	700
2	66	1,500	1,010	3,520	4,520	3,680	6,080	2,060	541	2,520	888	700
3	238	870	940	3,280	4,520	2,280	5,700	1,990	526	2,440	1,780	526
4	572	888	667	3,080	3,960	1,360	10,100	1,820	395	1,070	870	556
5	556	1,080	588	2,960	3,360	1,540	12,800	2,020	395	940	556	635
6	481	1,400	940	2,020	3,000	2,040	12,000	1,880	603	421	438	572
7	556	1,180	835	1,850	3,160	4,560	8,570	1,780	684	526	556	541
8	526	684	1,500	2,060	5,200	5,250	5,800	1,640	651	526	733	588
9	251	619	784	1,960	3,760	4,520	5,970	1,080	667	496	733	2,120
10	381	588	1,180	1,220	3,640	3,000	5,350	1,360	2,100	331	588	834
11	526	716	2,280	1,920	3,720	2,880	4,870	1,430	750	700	808	603
12	572	556	1,220	3,160	3,960	2,760	8,360	1,220	367	572	1,690	801
13	572	381	733	2,240	3,320	2,800	9,200	1,220	556	496	481	635
14	588	603	852	1,740	3,720	2,680	10,600	1,040	635	905	541	940
15	572	700	975	1,880	3,480	2,440	10,600	835	619	1,920	651	784
16	409	603	1,320	1,820	3,560	2,160	11,500	975	452	1,200	2,200	619
17	233	716	1,290	1,600	3,520	1,570	10,700	750	452	1,430	2,240	292
18	496	619	1,880	1,430	3,640	1,780	7,100	651	340	1,850	940	414
19	466	556	1,290	1,570	3,800	2,410	6,580	635	452	2,200	1,960	635
20	466	438	1,430	1,290	3,720	9,580	5,970	651	635	1,890	1,540	716
21	784	750	1,360	1,360	3,720	11,000	5,400	438	603	2,400	2,360	635
22	526	888	1,570	1,500	4,040	12,200	4,780	556	588	2,400	2,800	684
23	409	603	1,220	1,080	4,690	13,200	4,920	716	603	2,240	2,640	750
24	466	767	1,500	1,080	4,780	16,800	3,080	700	684	2,100	1,430	423
25	541	818	1,960	3,080	4,740	14,800	3,000	733	511	2,960	1,710	556
26	733	1,120	3,320	2,400	5,150	12,400	2,480	588	496	3,240	1,260	619
27	784	1,260	4,200	2,130	5,050	7,820	2,760	572	556	1,320	642	635
28	619	888	3,800	2,060	4,440	5,750	3,960	381	1,220	3,240	700	651
29	526	975	3,400	2,060	-------	4,320	3,200	395	1,780	3,080	784	481
30	733	870	3,200	2,130	-------	3,240	2,720	572	940	1,180	852	254
31	2,140	-------	3,520	2,160	-------	3,560	-------	603	-------	1,570	767	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,140	66	553	0.425	0.49
November	3,710	381	912	.702	.78
December	4,200	588	1,660	1.28	1.48
January	3,520	1,080	2,070	1.59	1.83
February	5,200	3,000	3,980	3.06	3.19
March	16,800	1,360	5,430	4.18	4.82
April	12,800	2,480	6,670	5.13	5.72
May	2,440	381	1,090	.838	.97
June	2,100	340	679	.522	.58
July	3,240	381	1,630	1.25	1.44
August	2,800	438	1,190	.915	1.05
September	2,120	254	663	.510	.57
The year	16,800	66	2,200	1.69	22.92

MOBILE RIVER BASIN

COOSA RIVER AT CHILDERSBURG, ALA.

LOCATION.—Water-stage recorder in T. 20 S., R. 3 E., at Central of Georgia Railway bridge 1 mile northwest of Childersburg. Zero of gage is 421.00 feet above mean sea level.

DRAINAGE AREA.—8,390 square miles.

RECORDS AVAILABLE.—February 1914 to September 1933.

DISCHARGE.—Maximum during year, 110,000 second-feet Dec. 18 (gage height, 24.3 feet); minimum, 2,890 second-feet Sept. 28–30; minimum gage height, 1.64 feet Sept. 29, 30.

1914–33: Maximum, 121,000 second-feet July 11, 1916; maximum gage height, 24.84 feet Mar. 16, 1929; minimum discharge, 1,300 second-feet in September 1925. Average, 16 years (1917–33), 14,600 second-feet.

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

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,170	10,900	35,900	82,300	14,300	20,800	25,000	10,200	7,460	6,620	6,340	12,600
2	4,170	15,000	25,800	80,600	13,700	18,500	28,300	9,740	6,900	5,780	5,780	13,900
3	4,170	22,800	16,100	82,300	13,200	16,900	30,500	9,420	6,340	5,520	4,890	11,900
4	3,930	25,400	12,400	84,000	13,000	15,800	29,200	9,260	6,060	5,920	4,650	10,400
5	4,170	20,000	10,900	84,000	12,800	14,600	25,800	10,400	5,920	5,260	5,920	8,050
6	4,650	13,400	9,900	81,100	12,300	14,100	23,300	13,400	5,780	4,890	6,200	5,920
7	7,040	9,740	9,580	75,500	16,500	15,000	23,800	17,700	5,650	4,770	5,260	4,890
8	10,100	8,350	9,740	69,500	42,700	16,900	23,300	22,800	5,520	4,650	4,650	4,770
9	9,260	7,600	9,580	70,600	45,700	17,700	21,200	25,800	5,520	4,410	4,410	5,130
10	6,900	7,180	9,740	64,000	45,700	17,300	19,300	29,600	5,920	4,170	4,290	5,390
11	5,260	7,180	18,100	48,600	43,700	16,500	17,700	30,500	5,780	4,650	4,050	5,010
12	4,410	12,100	60,400	41,700	40,800	15,000	16,100	26,200	5,650	4,290	3,810	4,530
13	3,930	13,500	85,200	37,300	35,000	14,300	14,600	20,400	5,520	4,290	3,690	4,530
14	3,690	10,900	91,500	32,800	26,200	13,900	13,700	17,300	5,520	4,170	3,570	4,170
15	3,690	8,500	85,200	27,400	21,200	13,500	13,500	15,400	5,650	4,890	3,810	3,930
16	8,050	7,180	82,900	22,800	24,200	13,200	14,600	13,400	5,650	5,520	3,930	3,810
17	27,400	6,620	102,000	20,000	27,400	13,000	15,000	11,600	5,650	5,390	4,290	3,690
18	36,400	6,620	110,000	18,500	38,200	12,600	16,100	10,400	5,260	4,770	4,650	3,690
19	41,700	9,100	104,000	17,700	38,200	22,000	17,300	9,580	4,890	5,130	4,170	4,050
20	40,000	13,000	93,900	16,500	53,100	72,200	16,500	9,100	4,650	5,010	4,170	4,050
21	34,100	18,500	88,000	15,800	59,400	81,100	15,400	8,650	4,530	5,390	4,290	4,050
22	22,400	22,400	84,000	15,400	55,600	69,500	14,100	8,200	4,530	5,390	4,530	3,810
23	13,200	20,800	80,000	15,000	52,600	60,400	13,400	7,900	4,410	5,390	4,530	3,690
24	9,260	16,900	76,600	14,600	49,600	53,100	12,400	7,600	4,410	9,260	4,050	3,570
25	7,900	13,400	82,300	22,000	45,700	46,700	12,600	7,460	4,290	8,650	3,690	3,220
26	7,180	18,100	92,100	25,000	39,100	35,500	12,400	7,460	5,920	6,620	3,570	3,110
27	7,180	26,600	86,300	24,200	29,200	25,000	12,400	7,320	7,460	5,780	3,930	3,000
28	7,320	37,700	104,000	23,300	23,800	20,400	13,200	7,180	6,760	5,390	3,690	2,890
29	7,600	40,800	108,000	20,400	-------	18,500	12,300	7,180	7,320	5,260	4,410	2,890
30	8,050	40,000	96,400	17,300	-------	16,900	11,100	7,180	7,320	5,520	5,920	2,890
31	8,500	-------	86,300	15,400	-------	16,500	-------	7,460	-------	6,200	8,200	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	41,700	3,690	11,800	1.41	1.63
November	40,800	6,620	16,300	1.94	2.16
December	110,000	9,580	63,400	7.56	8.72
January	84,000	14,600	40,800	4.86	5.60
February	59,400	12,300	33,300	3.97	4.13
March	81,100	12,600	26,400	3.15	3.63
April	30,500	11,100	17,800	2.12	2.36
May	30,500	7,180	13,100	1.56	1.80
June	7,460	4,290	5,740	.684	.76
July	9,260	4,170	5,450	.650	.75
August	8,200	3,570	4,620	.551	.64
September	13,900	2,890	5,250	.626	.70
The year	110,000	2,890	20,300	2.42	32.88

COOSA RIVER AT LOCK 18, NEAR WETUMPKA, ALA.

LOCATION.—Water-stage recorder in sec. 22, T. 19 N., R. 18 E., half a mile downstream from Lock 18 dam site and 7 miles above Wetumpka (revised). 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 1933.

DISCHARGE.—Maximum during year, 138,000 second-feet Dec. 28 (gage height, 30.7 feet); minimum, 70 second-feet at times (gage height, 1.95 feet).

1912–14, 1925–33: Maximum, 207,000 second-feet Mar. 15, 1929 (gage height, 38.6 feet); minimum, 70 second-feet at times in 1930–33.

REMARKS.—Records good below 40,000 second-feet, fair above. Flow almost completely regulated during low and medium stages by hydroelectric plants at Lock 12 and Mitchell Dam. Records collected by the Alabama Power Co., under general supervision of the United States Geological Survey, in connection with a Federal Power Commission project.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,070	14,500	40,800	[a]88,800	17,100	26,300	44,100	12,800	8,180	10,500	4,800	12,200
2	6,770	17,200	32,700	[a]80,600	19,300	20,200	32,700	10,900	9,460	6,200	5,040	5,100
3	7,130	20,400	25,400	[a]84,400	18,100	20,400	34,000	11,200	12,300	6,200	5,030	5,420
4	3,950	26,700	19,200	[a]88,200	13,800	18,100	33,900	10,900	3,560	6,940	7,060	11,000
5	6,820	24,900	11,300	[a]86,600	13,000	15,900	32,500	14,200	10,300	10,700	2,100	9,620
6	6,580	19,700	7,720	[a]88,000	19,300	20,800	34,700	15,400	7,700	9,810	6,740	10,700
7	6,340	14,900	8,560	[a]83,000	26,000	25,700	29,800	17,000	7,850	9,270	7,470	11,800
8	6,110	11,200	8,230	[a]78,700	55,900	22,000	29,400	23,900	8,740	4,160	6,560	11,900
9	6,110	9,000	9,600	[a]80,100	[b]46,500	20,400	27,800	29,500	9,440	5,680	7,320	9,090
10	6,110	8,040	9,600	[a]76,800	[b]49,200	20,400	26,700	29,900	2,720	6,380	6,320	8,610
11	6,110	7,370	25,200	62,800	[b]51,400	18,500	21,700	34,700	6,790	4,630	5,090	6,460
12	6,110	7,460	61,600	51,500	[b]46,600	16,900	24,300	31,900	8,830	7,360	375	117
13	6,340	10,800	88,700	44,500	[b]46,400	19,000	21,800	24,000	6,860	3,680	7,010	2,150
14	6,340	12,600	99,800	39,700	[b]32,600	19,100	18,900	20,600	5,620	7,240	6,570	971
15	6,340	13,200	92,900	35,800	[b]28,400	18,500	20,600	17,800	3,910	3,740	3,840	6,070
16	10,300	12,500	[a]93,500	26,600	24,000	12,700	17,900	18,700	8,540	5,810	4,660	2,340
17	23,100	8,940	[a]131,000	22,300	29,700	11,300	20,400	14,600	2,380	6,680	3,500	8,800
18	29,600	8,500	[a]122,000	24,700	50,000	8,710	20,000	13,100	7,260	4,210	1,330	5,630
19	36,400	8,110	[a]113,000	20,200	53,200	47,600	20,400	12,000	8,450	4,170	311	4,100
20	36,700	6,450	[a]101,000	18,400	82,700	[a]112,000	21,200	8,710	5,510	4,860	3,660	4,080
21	36,500	14,500	[a]91,200	13,100	[a]70,100	[a]100,000	19,400	8,690	5,880	7,970	5,460	4,200
22	31,900	24,200	[a]86,500	12,900	[a]61,700	[a]80,200	17,600	11,700	5,640	2,080	3,780	2,780
23	16,600	24,400	[a]82,300	17,400	[a]57,900	[a]63,100	19,100	10,600	3,690	6,650	3,530	728
24	10,600	24,900	[a]85,600	13,600	[a]53,000	[a]58,000	15,800	10,600	2,330	9,770	3,350	5,700
25	8,800	19,000	[a]116,000	24,100	[a]53,600	[a]54,600	16,400	10,100	4,720	10,200	8,100	5,510
26	10,000	28,000	[a]118,000	35,200	[a]50,000	51,200	16,200	10,700	6,220	10,900	3,060	2,930
27	11,300	31,600	[a]116,000	33,100	40,900	36,600	17,500	8,950	6,270	13,200	4,840	6,090
28	8,470	41,200	[a]132,000	29,000	30,000	24,100	19,200	6,420	6,450	12,300	5,530	3,500
29	6,700	42,300	[a]124,000	26,200	-------	25,700	9,570	8,210	7,290	3,600	3,150	3,460
30	6,560	44,200	[a]113,000	20,900	-------	17,400	15,100	7,160	11,100	6,560	3,280	3,330
31	10,200	-------	[a]96,000	14,800	-------	21,600	-------	7,420	-------	5,530	8,760	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	36,700	3,950	12,500	1.23	1.42
November	44,200	6,450	18,600	1.82	2.03
December	132,000	7,720	73,000	7.16	8.26
January	88,800	12,900	45,900	4.50	5.19
February	82,700	13,000	40,700	3.99	4.16
March	112,000	8,710	33,100	3.25	3.75
April	44,100	9,570	23,300	2.28	2.54
May	34,700	6,420	15,200	1.49	1.72
June	12,300	2,330	6,800	.667	.74
July	13,200	2,060	7,000	.686	.79
August	8,760	311	4,760	.467	.54
September	12,200	117	5,810	.570	.64
The year	132,000	117	23,900	2.34	31.78

[a] Affected by Tallapoosa River backwater. Discharge determined by generator and spillway discharge at Jordan Dam.

[b] Recorder out of order. Discharge determined as noted above.

ALABAMA RIVER NEAR MONTGOMERY, ALA.

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

DRAINAGE AREA.—15,100 square miles.

RECORDS AVAILABLE.—October 1927 to September 1933. At Montgomery from January 1899 to December 1903.

DISCHARGE.—Maximum during year, 150,000 second-feet Dec. 31 (gage height, 52.0 feet); minimum, 6,530 second-feet Oct. 9–11 (gage height, 1.50 feet).

1899–1903, 1927–33: Maximum, 209,000 second-feet Mar. 17, 1929 (gage height, 59.6 feet); minimum, 4,840 second-feet Nov. 20, 1931 (gage height, 0.37 foot).

REMARKS.—Records good. Flow regulated by hydroelectric plants on Tallapoosa and Coosa Rivers. Records collected by the Alabama Power Co., under general supervision of the United States Geological Survey, in connection with a Federal Power Commission project.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,920	12,300	50,800	146,000	26,900	51,100	49,400	21,800	12,800	18,600	8,900	13,500
2	7,740	15,700	43,200	140,000	29,700	42,000	59,100	19,200	13,200	12,000	11,600	12,200
3	7,740	19,600	33,600	131,000	30,200	35,500	57,900	17,900	14,800	9,080	11,600	8,210
4	7,210	23,400	26,300	123,000	26,600	34,300	55,600	17,400	13,400	10,200	12,600	8,210
5	8,100	26,600	21,500	117,000	19,200	27,100	52,000	17,700	10,400	12,200	11,400	10,800
6	7,920	24,000	13,000	112,000	20,700	25,000	51,100	20,500	11,100	13,100	8,210	11,200
7	7,380	18,000	12,100	108,000	25,500	30,500	46,700	20,200	12,600	14,000	10,600	12,200
8	6,870	14,900	10,800	104,000	47,200	35,500	43,200	25,000	14,100	12,400	9,430	13,300
9	6,700	11,000	13,500	99,300	61,200	34,600	43,800	31,700	15,300	10,000	12,400	14,400
10	6,530	10,000	14,200	96,600	62,700	31,700	44,900	37,000	13,200	10,400	13,700	11,600
11	6,530	9,800	18,800	92,400	66,500	27,100	40,900	38,500	9,840	9,430	14,000	10,400
12	6,700	9,220	38,200	84,500	68,000	26,600	42,300	38,200	11,300	12,400	10,400	7,900
13	6,870	11,400	62,700	74,600	67,100	27,400	40,000	33,600	11,100	13,700	10,200	7,900
14	7,040	13,500	79,300	65,300	62,400	27,100	34,600	27,100	13,700	12,400	10,400	9,610
15	6,870	16,700	88,900	57,900	50,800	25,200	36,700	25,200	12,600	11,400	10,000	10,000
16	7,210	17,000	94,500	50,800	43,500	23,100	40,600	22,800	12,100	10,600	12,400	9,250
17	15,400	13,700	104,000	42,600	38,200	19,700	41,200	20,500	11,900	10,800	12,400	10,200
18	24,600	10,600	114,000	37,600	46,400	17,000	40,000	16,500	9,640	9,430	11,800	10,800
19	31,400	10,600	122,000	36,700	63,600	25,200	36,100	14,800	11,700	11,800	9,800	8,730
20	35,900	11,700	124,000	33,000	75,500	79,800	31,400	13,200	9,640	11,600	8,380	11,600
21	36,800	14,700	122,000	28,300	91,000	112,000	28,600	11,300	13,400	12,200	8,900	12,200
22	34,200	24,600	118,000	25,000	97,800	125,000	26,600	11,100	13,700	11,400	8,550	12,400
23	25,400	28,900	113,000	23,100	99,000	125,000	24,700	13,000	13,700	8,730	10,000	11,400
24	14,700	29,200	108,000	23,400	95,400	117,000	25,000	13,700	11,900	11,200	10,000	9,610
25	9,600	26,000	107,000	30,000	89,500	105,000	23,900	13,200	10,400	12,000	10,800	10,600
26	9,600	26,000	117,000	46,400	83,300	93,200	22,800	13,000	8,300	14,200	11,800	9,080
27	11,200	38,200	124,000	52,300	75,500	80,400	21,000	13,000	9,250	16,600	8,900	12,000
28	10,800	45,800	131,000	50,000	63,600	62,500	26,400	11,300	12,100	17,600	9,250	13,300
29	9,030	52,000	142,000	44,900	-------	43,200	21,200	9,450	13,400	14,200	9,610	11,400
30	7,380	53,100	148,000	40,600	-------	32,300	20,200	10,400	13,700	10,000	8,900	11,200
31	7,740	-------	150,000	30,200	-------	27,100	-------	12,800	-------	9,800	10,800	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	36,800	6,530	12,900	0.854	0.98
November	53,100	9,220	21,300	1.41	1.57
December	150,000	10,800	79,500	5.26	6.06
January	146,000	23,100	69,200	4.58	5.28
February	99,000	19,200	58,100	3.85	4.01
March	125,000	17,000	50,600	3.35	3.86
April	59,100	20,200	37,600	2.49	2.78
May	38,500	9,450	19,700	1.30	1.50
June	15,300	8,300	12,100	.801	.89
July	18,600	8,730	12,000	.795	.92
August	14,000	8,210	10,600	.702	.81
September	14,400	7,900	10,800	.715	.80
The year	150,000	6,530	32,800	2.17	29.46

ALABAMA RIVER AT SELMA, ALA.

LOCATION.—Water-stage recorder in T. 17 N., R. 10 E., in Selma, half a mile below Louisville & Nashville Railroad bridge.

DRAINAGE AREA.—17,100 square miles.

RECORDS AVAILABLE.—January 1899 to December 1913; June 1927 to September 1933.

DISCHARGE.—Maximum during year, 164,000 second-feet Jan. 1 (gage height, 50.76 feet); minimum, 6,710 second-feet Oct. 12 (gage height, 1.54 feet).

1899–1913, 1928–33: Maximum, 204,000 second-feet Mar. 19, 1929 (gage height, 55.52 feet); minimum, 2,660 second-feet Nov. 1, 1904 (gage height, −2.20 feet). Average, 18 years (1900–1913, 1928–33), 27,100 second-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.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,920	9,780	51,800	162,000	33,500	64,200	46,200	22,500	14,200	15,500	10,700	11,800
2	7,920	13,400	48,500	162,000	31,500	53,800	58,000	23,200	14,200	19,000	10,100	14,400
3	7,920	16,600	41,500	157,000	34,200	44,500	63,000	21,200	14,800	14,800	12,000	13,400
4	7,780	20,500	33,800	147,000	34,000	39,500	62,000	20,000	15,700	11,800	12,600	9,600
5	7,640	24,500	27,200	133,000	29,000	36,000	58,500	19,500	14,200	12,000	13,400	8,960
6	7,920	26,500	20,800	122,000	22,500	30,200	56,000	21,000	12,400	13,200	12,400	11,000
7	8,060	24,200	15,100	112,000	25,000	23,500	53,800	23,000	12,800	13,600	9,600	11,800
8	7,640	19,000	13,600	106,000	38,500	38,800	50,000	22,800	12,800	14,000	11,000	12,800
9	7,230	15,300	13,600	100,000	55,800	41,000	47,200	27,800	15,300	12,800	10,700	14,800
10	6,970	11,800	14,200	95,900	63,000	39,800	48,000	34,000	17,100	11,000	13,000	16,200
11	6,840	10,300	15,900	92,900	65,800	36,000	49,000	37,500	14,800	11,000	14,600	13,600
12	6,840	9,960	23,200	89,300	68,800	31,500	50,000	39,200	12,400	10,700	14,600	11,600
13	6,970	9,440	44,000	82,700	68,500	30,000	49,500	38,200	12,800	12,800	12,400	9,280
14	7,100	11,000	61,800	75,200	66,800	30,800	47,000	34,000	13,000	13,600	11,000	8,640
15	7,360	13,200	74,200	67,000	61,500	29,800	47,800	29,000	14,400	13,000	11,600	9,780
16	8,060	16,400	82,700	59,200	53,200	28,000	51,500	26,500	13,800	12,000	11,000	10,300
17	9,120	16,600	92,300	50,500	46,000	24,800	52,500	24,000	13,600	11,400	13,000	10,700
18	16,600	14,000	101,000	42,500	45,000	21,800	50,200	21,000	13,000	11,600	13,600	9,960
19	26,200	11,600	108,000	39,500	56,000	23,800	46,000	18,000	11,600	11,000	13,000	11,600
20	33,000	11,200	115,000	37,200	69,500	57,200	40,200	17,300	12,600	12,200	11,400	9,780
21	35,800	11,800	119,000	34,500	81,000	89,900	35,200	15,900	12,000	12,400	9,960	11,800
22	36,000	15,100	118,000	30,200	90,200	111,000	32,000	14,400	13,800	13,000	9,780	13,000
23	33,200	24,500	115,000	26,500	94,700	123,000	29,800	14,200	14,400	12,200	9,280	13,000
24	25,500	29,500	110,000	25,800	95,900	125,000	28,000	15,100	14,400	10,300	10,300	12,000
25	16,200	30,000	108,000	31,000	93,500	120,000	27,800	15,100	13,000	12,800	10,700	10,500
26	11,200	28,200	111,000	41,500	88,100	109,000	27,000	14,800	12,000	13,600	11,600	10,900
27	10,700	31,200	119,000	51,800	81,500	96,500	25,200	14,800	11,200	15,500	12,200	10,100
28	11,800	40,200	130,000	54,800	74,500	83,000	24,800	14,800	11,600	18,800	9,960	12,400
29	11,400	47,000	142,000	52,800	-------	67,200	28,500	13,600	13,600	19,800	9,780	13,800
30	9,600	51,500	152,000	47,200	-------	50,200	23,500	12,000	14,800	15,700	8,960	12,400
31	8,340	-------	158,000	41,200	-------	39,500	-------	12,600	-------	11,600	9,600	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	36,000	6,840	13,400	0.784	0.90
November	51,500	9,440	20,500	1.20	1.34
December	158,000	13,600	76,800	4.49	5.18
January	162,000	25,800	76,500	4.47	5.15
February	95,900	22,500	59,600	3.49	3.63
March	125,000	21,800	56,400	3.30	3.80
April	63,000	23,500	43,600	2.55	2.84
May	39,200	12,000	21,800	1.27	1.46
June	17,100	11,200	13,600	.795	.89
July	19,800	10,300	13,300	.778	.90
August	14,600	8,960	11,400	.667	.77
September	16,200	8,640	11,700	.684	.76
The year	162,000	6,840	34,800	2.04	27.62

ALABAMA RIVER NEAR COY, ALA.

LOCATION.—Water-stage recorder in T. 11 N., R. 6 E., at St. Louis-San Francisco Railway bridge 3 miles north of Coy.
DRAINAGE AREA.—21,200 square miles.
RECORDS AVAILABLE.—July 1928 to September 1933.
DISCHARGE.—Maximum during year, 170,000 second-feet Jan. 5 (gage height, 48.78 feet); minimum, 7,350 second-feet Oct. 14 (gage height, 3.10 feet).
1928–33: Maximum, 269,000 second-feet Mar. 23, 1929 (gage height, 55.83 feet); minimum, 5,800 second-feet Nov. 3–4, 1931 (gage height, 2.00 feet).
REMARKS.—Records good. Discharge estimated May 23 to June 1. Flow regulated by power plants upstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,600	12,700	54,400	156,000	50,800	97,000	81,000	29,000	14,200	16,800	15,400	11,100
2	9,550	15,600	55,000	161,000	46,000	86,700	79,000	26,800	15,000	18,400	13,300	12,400
3	8,870	17,600	52,200	165,000	42,600	74,000	78,300	26,800	15,800	21,500	12,200	14,800
4	8,700	19,200	46,500	169,000	41,600	62,000	77,000	25,500	16,000	20,000	12,200	15,600
5	8,550	21,100	39,500	169,000	40,300	51,900	74,700	24,400	16,800	16,200	13,100	13,500
6	8,400	23,700	32,600	167,000	36,400	45,800	72,400	23,700	16,800	14,600	13,800	11,500
7	8,250	25,900	26,800	161,000	31,600	47,600	70,000	25,100	14,600	14,800	13,800	11,500
8	8,700	25,500	24,000	153,000	42,600	50,500	65,800	27,100	14,000	15,400	12,200	12,600
9	8,700	22,600	20,700	145,000	55,000	50,500	61,400	27,300	14,400	15,600	11,500	13,600
10	8,400	19,200	19,000	138,000	64,000	49,700	58,100	30,200	16,200	15,400	11,700	15,400
11	7,950	16,000	24,400	132,000	71,200	47,300	60,000	34,800	18,400	14,300	12,400	17,000
12	7,650	13,600	28,300	126,000	77,700	43,700	64,000	39,000	18,400	13,800	14,200	16,400
13	7,500	12,400	32,400	121,000	80,300	39,300	65,800	40,800	15,600	12,900	15,200	14,600
14	7,350	11,700	46,800	115,000	79,700	36,400	67,600	40,800	14,600	14,000	14,200	12,900
15	7,800	12,000	64,600	106,000	77,400	35,600	75,000	37,700	14,400	18,000	12,600	11,500
16	12,900	13,600	79,000	94,700	73,100	34,600	77,700	33,600	15,400	18,800	12,200	10,400
17	20,200	16,200	93,200	82,300	65,800	32,800	75,700	30,200	15,600	18,600	12,600	10,800
18	20,900	17,600	103,000	69,400	61,400	30,200	71,500	27,600	15,200	19,800	13,300	11,300
19	22,000	17,400	109,000	57,800	65,500	38,500	66,100	24,800	14,800	17,600	15,400	10,900
20	28,300	16,000	114,000	50,000	73,400	73,100	59,200	21,800	13,300	15,200	16,200	11,500
21	33,800	14,800	118,000	45,200	86,300	92,800	52,200	20,200	13,300	14,600	14,800	11,100
22	35,900	15,000	123,000	41,300	94,700	106,000	45,800	19,000	13,300	15,200	12,700	11,300
23	36,100	16,400	126,000	37,200	100,000	114,000	40,800	17,000	14,000	15,600	11,700	12,600
24	34,100	21,800	129,000	33,600	105,000	122,000	37,400	15,600	15,400	15,600	11,300	13,300
25	29,000	27,800	131,000	41,300	108,000	128,000	35,100	16,200	16,000	13,800	11,100	12,900
26	23,300	34,800	134,000	51,600	109,000	132,000	34,100	17,000	15,400	15,000	11,300	11,800
27	20,700	36,900	136,000	55,000	108,000	132,000	32,600	16,800	14,200	17,200	11,700	11,500
28	18,400	37,700	140,000	59,200	104,000	130,000	30,900	16,500	13,500	18,400	12,900	11,100
29	16,400	43,200	143,000	62,000	-------	122,000	29,700	16,000	13,500	20,000	12,400	11,500
30	15,400	49,400	147,000	60,600	-------	107,000	31,400	15,200	14,800	20,900	11,500	13,300
31	13,800	-------	152,000	55,800	-------	88,500	-------	13,600	-------	19,000	11,100	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	36,100	7,350	16,400	0.774	0.89
November	49,400	11,700	21,600	1.02	1.14
December	152,000	19,000	82,100	3.87	4.46
January	169,000	33,600	99,400	4.69	5.41
February	109,000	31,600	71,100	3.35	3.49
March	132,000	30,200	74,200	3.50	4.04
April	81,000	29,700	59,000	2.78	3.10
May	40,800	13,600	25,200	1.19	1.37
June	18,400	13,300	15,100	.712	.79
July	21,500	12,900	16,700	.788	.91
August	16,200	11,100	12,900	.608	.70
September	17,000	10,400	12,700	.599	.67
The year	169,000	7,350	42,100	1.99	26.97

ALABAMA RIVER AT CLAIBORNE, ALA.

LOCATION.—Water-stage recorder in sec. 25, T. 7 N., R. 5 E., at toll bridge in Claiborne. Zero of gage is at mean sea level.

DRAINAGE AREA.—22,000 square miles.

RECORDS AVAILABLE.—April 1930 to September 1933.

DISCHARGE.—Maximum during year, 172,000 second-feet Jan. 6 (gage height, 47.96 feet); minimum, 7,850 second-feet Oct. 14, 15; minimum gage height, 9.21 feet Oct. 15.

1930–33: Maximum, that of Jan. 6, 1933; minimum, 6,200 second-feet Nov. 3–4, 1931; minimum gage height, 8.00 feet Nov. 4, 1931.

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

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Ju'y	Aug.	Sept.
1	11,300	18,200	51,000	157,000	57,300	111,000	102,000	31,000	14,100	16,300	18,600	11,800
2	10,800	18,200	54,300	160,000	53,100	104,000	93,600	28,800	14,200	18,000	15,700	12,400
3	10,100	19,800	53,500	163,000	48,400	92,000	88,200	27,400	15,000	20,200	13,900	13,700
4	9,580	21,000	49,900	166,000	44,900	77,700	85,200	26,500	15,500	21,300	13,200	15,200
5	9,420	22,500	43,500	169,000	42,500	64,000	82,700	25,400	16,100	18,600	13,700	14,800
6	9,260	24,500	37,100	170,000	39,400	54,300	80,400	24,100	16,700	16,100	14,200	13,000
7	9,100	26,500	32,200	169,000	35,300	53,100	78,200	24,100	15,700	15,200	14,600	11,900
8	9,100	27,400	28,300	165,000	40,000	54,600	74,100	25,600	14,400	15,300	13,900	12,400
9	9,100	26,300	25,200	160,000	51,700	54,300	69,800	26,700	14,200	15,700	12,800	13,500
10	9,100	23,600	22,300	153,000	60,800	52,800	65,600	27,900	15,000	15,700	12,600	14,400
11	8,780	20,800	23,600	146,000	69,000	50,600	64,800	31,400	17,000	15,500	13,000	15,700
12	8,300	18,000	28,100	140,000	75,900	47,000	68,600	35,500	18,400	15,000	13,900	16,700
13	8,000	15,900	30,700	134,000	80,800	42,800	70,600	38,500	17,200	14,100	15,300	16,300
14	7,850	14,400	37,600	128,000	82,700	38,800	74,100	40,000	15,300	14,400	15,500	14,600
15	8,150	13,500	54,600	122,000	82,700	36,800	82,700	38,800	14,600	18,000	14,400	12,800
16	11,400	13,900	70,600	114,000	80,800	35,800	87,200	35,500	14,800	19,400	13,400	11,600
17	17,800	15,200	84,700	102,000	75,900	34,200	87,200	32,200	15,300	20,400	13,400	11,400
18	21,000	17,200	96,400	88,200	69,400	32,200	83,200	29,300	15,300	21,700	13,700	11,800
19	21,300	18,200	105,000	73,200	68,100	42,000	77,200	26,700	15,000	20,600	15,000	12,100
20	24,500	17,600	112,000	60,800	72,300	80,400	69,800	23,600	14,200	18,000	16,500	11,900
21	29,800	16,500	118,000	52,000	81,800	96,400	61,600	21,000	13,500	16,500	16,300	12,300
22	33,200	15,900	122,000	45,900	91,400	105,000	53,500	19,400	13,500	16,300	14,800	11,900
23	34,700	16,100	126,000	41,200	99,600	113,000	47,000	17,800	13,700	16,900	13,200	12,600
24	34,500	18,600	130,000	37,400	106,000	119,000	41,800	16,500	14,800	17,000	12,100	13,500
25	32,000	24,100	133,000	39,000	111,000	126,000	38,200	16,100	15,700	16,500	11,800	13,700
26	28,800	31,000	137,000	48,800	114,000	130,000	36,300	16,500	15,700	16,900	11,900	13,200
27	26,100	35,800	140,000	54,300	115,000	135,000	34,700	16,700	15,200	19,000	12,100	12,400
28	23,600	36,300	145,000	57,700	114,000	136,000	33,000	16,500	14,200	20,200	12,100	12,100
29	21,000	39,400	147,000	61,200	-------	134,000	31,200	16,500	13,900	20,800	13,200	11,900
30	21,500	45,200	151,000	62,400	-------	127,000	31,400	16,500	14,400	21,300	12,400	13,000
31	19,000	-------	155,000	60,000	-------	116,000	-------	15,300	-------	20,800	11,900	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	34,700	7,850	17,400	0.791	0.91
November	45,200	13,500	22,400	1.02	1.14
December	155,000	22,300	82,100	3.73	4.30
January	170,000	37,400	106,000	4.82	5.56
February	115,000	35,300	73,700	3.35	3.49
March	136,000	32,200	80,500	3.66	4.22
April	102,000	31,200	66,500	3.02	3.37
May	40,000	15,300	25,400	1.15	1.33
June	18,400	13,500	15,100	.686	.77
July	21,700	14,100	17,800	.809	.93
August	18,600	11,800	13,800	.627	.72
September	16,700	11,400	13,200	.600	.67
The year	170,000	7,850	44,400	2.02	27.41

TALLAPOOSA RIVER AT WADLEY, ALA.

LOCATION.—Staff gage in sec. 12, T. 22 S., R. 10 E., in Wadley. Zero of gage is 600.78 feet above mean sea level.

DRAINAGE AREA.—1,660 square miles.

RECORDS AVAILABLE.—September 1923 to September 1933.

DISCHARGE.—Maximum during year, 33,300 second-feet Mar. 20 (gage height, 19.8 feet); minimum, 380 second-feet Sept. 25–28 (gage height, 2.8 feet).

1923–33: Maximum, 46,900 second-feet Jan. 18, 1925 (gage height, 26.3 feet); minimum, 60 second-feet on 8 days during September 1925 and Oct. 2, 1931 (gage height, 2.2 feet). Average, 10 years, 2,460 second-feet.

REMARKS.—Records good. Slight diurnal regulation during extremely low water caused by small mills upstream. Records collected by Alabama Power Co., under general supervision of the United States Geological Survey in connection with a Federal Power Commission project.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,050	7,730	2,270	9,770	2,900	3,690	10,200	2,720	1,480	1,540	1,480	3,100
2	860	7,910	1,990	7,010	2,960	3,390	8,100	2,590	1,360	1,420	1,170	2,160
3	800	4,770	1,860	5,640	2,840	3,240	5,640	3,390	1,360	1,480	1,420	1,540
4	740	2,470	1,720	4,980	2,900	3,100	4,480	3,390	1,360	3,100	1,420	1,170
5	920	1,860	1,650	4,650	2,900	3,030	3,990	4,980	1,240	3,690	2,100	990
6	2,270	1,720	1,590	4,320	2,720	2,960	4,320	7,010	1,240	2,280	2,100	860
7	1,590	1,720	1,650	3,990	4,480	4,980	4,320	7,010	1,240	1,360	1,240	860
8	1,120	1,650	1,930	3,690	19,900	5,470	3,990	15,200	1,240	1,110	990	1,170
9	920	1,790	1,790	9,770	13,000	4,150	3,690	8,890	1,110	1,110	920	990
10	740	1,590	1,720	8,100	8,890	3,690	3,390	6,470	1,240	990	860	1,050
11	740	1,520	3,600	6,130	5,310	3,390	3,690	4,320	1,730	1,050	800	920
12	680	1,520	18,200	5,310	4,150	3,030	3,540	3,390	1,730	1,670	1,240	920
13	620	1,320	18,200	4,650	3,690	2,960	3,100	3,100	1,730	3,100	990	1,420
14	620	1,250	17,400	3,990	3,390	3,100	2,960	2,720	1,420	1,730	1,050	920
15	680	1,250	15,000	3,690	3,390	2,960	3,390	2,470	1,240	1,300	1,240	860
16	11,200	1,250	8,690	3,540	3,390	2,900	3,390	2,530	1,110	1,240	1,050	800
17	12,500	1,250	26,600	3,390	3,390	2,840	3,240	2,410	1,110	1,920	860	740
18	10,700	1,320	19,500	3,240	11,800	2,720	3,100	2,100	1,050	1,730	1,110	680
19	9,320	4,180	16,100	3,240	10,200	4,810	2,900	1,980	990	2,720	990	620
20	4,180	5,380	12,700	3,100	17,800	32,000	2,720	1,980	990	1,540	1,110	620
21	2,270	4,180	5,850	3,100	13,900	20,300	4,650	1,850	860	8,890	860	500
22	1,590	2,610	4,480	2,960	10,200	15,200	3,100	1,850	860	2,900	740	500
23	1,380	1,990	4,180	3,100	6,640	7,550	3,240	1,850	860	2,040	740	500
24	1,320	1,650	4,180	3,030	5,310	5,310	3,390	1,850	3,390	1,790	680	500
25	1,180	1,720	10,900	6,130	4,650	4,810	8,100	2,160	1,980	1,360	620	380
26	1,180	7,730	24,500	6,640	4,480	4,480	5,800	1,790	2,720	1,540	620	440
27	3,740	10,200	24,700	4,980	4,320	3,990	4,320	1,850	5,960	2,350	920	440
28	3,240	9,540	29,900	3,990	3,990	3,690	3,840	1,850	4,650	2,780	1,360	380
29	1,930	4,620	27,000	3,390	-------	3,540	3,240	1,790	3,690	4,480	2,720	560
30	1,520	2,890	21,100	3,100	-------	3,390	3,030	1,730	1,920	1,920	6,300	560
31	2,060	-------	16,600	2,960	-------	3,390	-------	1,600	-------	1,420	6,300	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,500	620	2,700	1.63	1.88
November	10,200	1,250	3,350	2.02	2.25
December	29,900	1,590	11,200	6.75	7.78
January	9,770	2,960	4,700	2.83	3.26
February	19,900	2,720	6,550	3.95	4.11
March	32,000	2,720	5,610	3.38	3.90
April	10,200	2,720	4,230	2.55	2.84
May	15,200	1,600	3,510	2.11	2.43
June	5,960	860	1,760	1.06	1.18
July	8,890	990	2,180	1.31	1.51
August	6,300	620	1,480	0.892	1.03
September	3,100	380	905	0.545	.61
The year	32,000	380	4,010	2.42	32.78

TALLAPOOSA RIVER BELOW TALLASSEE, ALA.

LOCATION.—Water-stage recorder in T. 18 N., R. 22 E., 1½ miles below highway bridge at Tallassee. Zero of gage is 162.03 feet above mean sea level.

DRAINAGE AREA.—3,320 square miles.

RECORDS AVAILABLE.—July 1928 to September 1933.

DISCHARGE.—Maximum during year, 51,000 second-feet Dec. 28 (gage height, 37.6 feet); minimum, 38 second-feet Oct. 2, 5 (gage height, −1.6 feet).

1928–33: Maximum, 115,000 second-feet Mar. 15, 1929 (gage height, 51.35 feet); minimum, 10 second-feet June 3–4, 1930, and at times during 1931; minimum gage height, that of Oct. 2, 5, 1932.

REMARKS.—Records good below 10,000 second-feet, fair above. Considerable regulation caused by operation of power plants upstream. Records collected by Alabama Power Co., under general supervision of the United States Geological Survey, in connection with a Federal Power Commission project.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	226	475	1,510	a20,300	10,500	13,600	15,500	7,160	4,460	702	5,980	1,110
2	95	1,420	756	a14,200	8,190	13,800	15,300	5,970	3,540	55	6,360	66
3	3,430	564	1,650	9,030	5,440	12,700	14,900	4,150	4,320	3,220	6,530	48
4	1,210	472	3,050	7,840	239	7,870	12,900	4,660	649	2,860	4,180	492
5	472	287	3,270	11,800	2,380	4,480	12,300	4,080	2,790	2,590	3,670	911
6	474	95	2,860	12,600	6,300	5,660	12,100	3,530	5,320	4,050	72	1,020
7	477	568	3,110	12,300	7,730	6,900	11,600	5,130	6,730	4,290	4,390	999
8	224	934	3,530	12,000	9,420	9,500	10,800	8,610	6,630	4,450	6,110	2,090
9	102	1,520	5,420	12,100	11,100	8,630	11,000	11,000	4,920	65	7,580	154
10	518	1,600	4,440	11,800	10,300	3,890	11,500	9,370	5,080	4,950	7,280	44
11	498	2,070	4,020	11,200	11,100	8,750	7,820	6,200	68	6,640	5,700	4,130
12	779	2,650	5,370	11,800	11,700	8,530	7,020	6,110	4,940	6,620	7,480	6,390
13	513	2,140	6,830	12,400	10,900	7,810	6,280	5,180	7,390	6,890	65	7,000
14	362	6,270	9,200	11,500	10,300	5,430	6,250	6,090	7,940	4,230	6,270	6,250
15	362	2,950	a15,200	11,100	10,200	5,310	7,840	5,230	6,540	5,300	7,950	4,100
16	851	1,770	a15,700	11,900	10,100	4,850	12,300	3,110	4,490	70	7,830	4,490
17	485	2,060	a23,100	11,700	9,550	4,900	11,900	2,590	5,320	4,910	6,910	66
18	467	1,890	a29,800	11,300	11,800	3,980	10,200	2,750	70	6,670	7,000	5,900
19	537	4,840	a17,000	11,100	a14,000	a11,800	6,170	2,720	5,620	5,970	5,720	8,020
20	650	5,850	a18,400	10,800	a22,500	a34,100	5,920	1,820	8,180	5,110	58	8,340
21	452	6,210	14,500	8,600	a26,600	a31,000	6,000	185	8,140	3,380	4,970	8,560
22	207	4,340	13,700	4,650	a22,000	a14,800	5,270	3,150	8,020	3,550	5,500	8,440
23	91	3,890	a14,100	5,390	a18,900	a10,700	5,190	2,840	8,160	74	6,380	7,720
24	428	3,050	a14,000	11,100	a18,100	12,700	6,580	2,060	6,590	1,840	5,580	1,230
25	466	3,910	a16,000	12,100	17,100	12,800	3,810	2,420	76	2,900	4,430	6,170
26	434	11,000	a24,800	11,900	16,000	12,400	4,000	2,380	4,950	4,690	4,290	8,680
27	462	12,600	a33,700	11,200	15,600	12,400	6,520	1,950	6,270	2,490	68	8,710
28	450	13,500	a46,800	10,200	13,900	7,160	6,980	191	6,110	3,800	4,700	7,670
29	183	11,200	a42,600	9,280	-------	6,390	5,300	4,450	4,060	3,240	5,310	7,600
30	97	3,830	a37,200	9,690	-------	6,280	5,350	5,830	3,560	64	6,380	6,860
31	449	-------	a25,700	9,170	-------	7,680	-------	4,420	-------	5,160	1,880	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,430	91	531	0.160	0.18
November	13,500	95	3,800	1.14	1.27
December	46,800	756	14,800	4.46	5.14
January	20,300	4,650	11,000	3.31	3.82
February	26,600	239	12,200	3.67	3.82
March	34,100	3,890	10,200	3.07	3.54
April	15,500	3,810	8,820	2.66	2.97
May	11,000	185	4,370	1.32	1.52
June	8,180	68	5,030	1.52	1.70
July	6,890	55	3,580	1.08	1.24
August	7,950	58	5,050	1.52	1.75
September	8,710	44	4,440	1.34	1.50
The year	46,800	44	6,960	2.10	28.45

a Discharge determined from kilowatt output and spillway discharge at Thurlow Dam.

EAST FORK OF TOMBIGBEE RIVER NEAR FULTON, MISS.

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

DRAINAGE AREA.—650 square miles.

RECORDS AVAILABLE.—August 1928 to September 1933.

DISCHARGE.—Maximum during year, 16,400 second-feet Oct. 18 (gage height, 18.05 feet); minimum, 92 second-feet Sept. 27 (gage height, 2.28 feet).

1928–33: Maximum, 19,600 second-feet Sept. 28, 1932 (gage height, 18.52 feet); minimum, 14 second-feet Aug. 12, 1930 (gage height, 0.87 foot).

REMARKS.—Records fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,690	1,680	1,520	4,520	805	1,140	6,500	749	380	634	412	242
2	1,820	1,360	1,100	4,170	777	1,060	8,360	670	300	850	300	350
3	1,150	1,150	896	2,870	722	944	3,870	722	260	777	188	467
4	1,560	960	735	2,270	670	865	2,690	658	242	522	290	380
5	2,000	820	658	1,820	634	777	2,080	1,030	224	300	251	215
6	8,050	763	544	1,540	588	670	1,870	1,600	206	215	188	197
7	4,340	777	896	1,290	1,130	1,170	2,690	2,080	197	170	162	215
8	2,530	749	1,140	1,170	2,690	1,720	2,530	2,530	188	154	154	154
9	1,700	683	1,190	1,250	8,050	1,870	2,000	2,530	188	179	146	154
10	1,100	646	2,080	1,440	3,870	1,750	1,600	2,270	224	489	138	170
11	709	634	5,640	1,400	2,530	1,560	1,320	1,930	300	622	154	242
12	544	749	10,800	1,320	2,000	1,360	1,170	1,930	290	478	146	280
13	401	709	6,810	1,190	1,680	1,270	1,080	2,390	401	300	130	320
14	330	599	5,640	1,010	1,660	1,190	1,010	3,200	434	320	138	170
15	290	533	4,920	896	2,690	1,100	1,060	2,530	280	310	130	188
16	1,510	522	2,690	805	6,810	977	1,250	1,930	206	224	122	146
17	3,870	622	3,200	791	4,520	865	1,420	1,340	179	270	114	130
18	15,200	634	2,390	960	3,070	1,100	1,600	944	179	206	224	179
19	7,740	670	2,080	1,030	2,390	1,930	1,560	696	162	154	215	179
20	3,870	763	1,700	1,010	2,970	8,050	1,310	500	154	146	162	146
21	2,530	709	1,520	928	8,360	6,200	1,170	423	146	154	138	122
22	1,870	622	1,820	1,290	5,150	3,440	1,290	340	138	146	130	114
23	1,400	533	2,270	1,780	3,070	2,390	1,380	588	130	138	122	99
24	1,060	500	2,970	3,070	2,270	1,870	1,440	599	130	138	114	99
25	835	610	3,440	2,690	1,870	1,580	1,360	478	138	260	138	99
26	1,340	1,290	4,340	2,270	1,620	1,310	1,230	330	146	763	146	99
27	1,930	2,000	3,570	1,870	1,400	1,190	1,150	670	138	820	106	99
28	4,520	3,440	3,070	1,520	1,250	1,060	1,100	880	130	850	146	99
29	4,170	2,690	2,870	1,210	------	944	994	880	138	865	270	114
30	2,690	2,000	2,530	1,030	------	850	865	763	360	696	170	130
31	2,170	------	2,870	880	------	1,820	------	533	------	478	179	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	15,200	290	2,770	4.26	4.91
November	3,440	500	1,010	1.55	1.73
December	10,800	544	2,840	4.37	5.04
January	4,520	791	1,650	2.54	2.93
February	8,360	588	2,690	4.14	4.31
March	8,050	670	1,740	2.68	3.09
April	8,360	865	1,960	3.02	3.37
May	3,200	330	1,250	1.92	2.21
June	434	130	220	.338	.38
July	865	138	407	.626	.72
August	412	106	175	.269	.31
September	467	99	187	.288	.32
The year	15,200	99	1,400	2.15	29.32

TOMBIGBEE RIVER AT ABERDEEN, MISS.

LOCATION.—Chain gage at St. Louis-San Francisco Railway bridge in Aberdeen, Monroe County, half a mile below Matubby Creek.
DRAINAGE AREA.—2,210 square miles.
RECORDS AVAILABLE.—August 1928 to September 1933.
DISCHARGE.—Maximum during year, 27,800 second-feet Dec. 15 (gage height, 38.40 feet); minimum, 229 second-feet Sept. 26 (gage height, 2.52 feet).
1928–33: Maximum, 33,100 second-feet Dec. 16, 1931 (gage height, 39.61 feet); minimum, 61 second-feet Aug. 8, 1930.
Maximum stage known, 44.0 feet Apr. 20, 1892 (discharge not determined).
REMARKS.—Records fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,500	8,680	4,630	13,800	3,390	6,570	10,500	2,670	1,210	3,030	1,160	788
2	10,600	7,660	4,170	13,800	3,030	5,120	15,600	2,400	996	3,430	918	944
3	10,300	6,230	3,940	12,400	2,740	4,020	16,600	2,160	840	2,260	762	1,540
4	9,160	4,630	3,530	11,100	2,470	3,430	15,000	1,990	762	1,770	814	1,510
5	8,260	3,640	3,170	10,100	2,300	2,960	13,800	3,100	684	2,260	1,160	814
6	8,320	3,350	2,670	9,040	2,190	3,610	12,800	6,810	632	1,130	944	788
7	8,200	3,320	2,600	7,660	3,170	6,090	11,900	5,860	606	762	684	580
8	6,710	2,960	4,710	6,330	11,400	7,820	11,000	4,590	554	606	554	554
9	6,230	2,600	4,470	6,370	15,300	7,820	9,160	5,080	528	502	476	684
10	6,090	2,300	5,950	6,570	16,500	6,710	7,510	4,020	528	1,330	424	918
11	5,080	2,130	11,900	5,680	14,400	5,590	6,810	3,750	554	3,980	372	684
12	4,170	2,600	18,300	4,590	13,400	5,160	7,360	4,320	606	2,300	372	606
13	2,960	2,130	22,800	3,980	12,300	5,160	6,710	6,420	840	1,510	346	554
14	2,160	1,990	24,900	3,610	11,000	4,590	5,120	6,710	1,540	1,070	424	710
15	2,190	1,860	27,400	3,320	10,800	4,130	4,710	5,510	970	1,070	424	554
16	7,210	1,730	25,600	3,140	11,200	3,680	6,860	4,130	814	1,800	502	450
17	14,400	1,960	21,200	2,960	11,800	3,390	6,810	3,320	658	1,860	450	346
18	20,400	1,930	17,000	3,100	11,000	4,430	5,910	3,640	554	1,510	372	320
19	23,600	2,300	14,400	3,070	10,700	7,880	4,870	3,210	476	840	346	333
20	23,000	2,670	12,600	2,890	11,900	13,300	4,240	2,670	398	658	450	502
21	20,400	2,330	11,400	2,780	14,000	17,000	4,210	2,060	398	528	450	372
22	17,000	2,190	12,200	4,990	15,600	17,100	5,770	1,480	398	476	372	320
23	14,000	1,960	13,000	8,260	14,000	15,300	7,110	1,420	372	450	333	281
24	11,600	1,800	13,800	8,980	12,900	13,900	6,810	1,390	333	398	320	255
25	9,660	2,260	14,600	8,740	12,000	12,400	5,200	1,300	346	710	320	242
26	9,160	5,730	14,200	7,510	10,800	11,000	4,210	1,210	346	1,480	294	229
27	11,900	7,560	14,200	6,470	9,590	9,400	3,860	1,160	346	2,020	281	242
28	13,000	8,380	14,800	5,680	8,100	7,610	3,570	1,670	372	2,020	268	268
29	12,700	7,360	14,600	4,910	-------	5,680	3,210	1,610	398	1,450	307	398
30	11,100	5,770	14,200	4,320	-------	4,050	2,890	1,540	1,420	1,610	554	281
31	9,590	-------	13,800	3,790	-------	5,160	-------	1,420	-------	1,360	684	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	23,600	2,160	10,600	4.80	5.53
November	8,680	1,730	3,730	1.69	1.89
December	27,400	2,600	12,500	5.66	6.52
January	13,800	2,780	6,450	2.92	3.37
February	16,500	2,190	9,930	4.49	4.68
March	17,100	2,960	7,420	3.36	3.87
April	16,600	2,890	7,670	3.47	3.87
May	6,810	1,160	3,180	1.44	1.66
June	1,540	333	649	.294	.33
July	3,980	398	1,490	.674	.78
August	1,160	268	521	.236	.27
September	1,540	229	569	.257	.29
The year	27,400	229	5,380	2.43	33.06

TOMBIGBEE RIVER AT COLUMBUS, MISS.

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

DRAINAGE AREA.—4,490 square miles.

RECORDS AVAILABLE.—January 1900 to December 1912, August 1928 to September 1933.

DISCHARGE.—Maximum during year, 55,900 second-feet Dec. 1f (gage height, 26.9 feet); minimum, 560 second-feet Sept. 26, 27 (gage height, −2.60 feet).

1900–1912, 1928–33: Maximum gage height recorded, 30.6 feet Mar. 31, 1902 (discharge not determined); minimum discharge not determined. Average, 16 years (1900–1904, 1905–12, 1928–33), 6,190 second-feet.

Maximum stage known, 38.6 feet Apr. 8, 1892 (discharge not determined).

REMARKS.—Records fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,000	18,500	11,900	33,200	6,580	13,600	13,500	5,090	2,210	3,290	2,590	2,840
2	15,300	13,800	8,680	30,500	5,800	11,500	17,900	4,650	2,000	4,650	2,210	2,840
3	14,200	11,600	7,230	28,400	5,440	9,240	22,200	4,350	1,790	3,750	1,650	2,590
4	12,800	9,100	6,450	26,200	4,870	7,490	24,500	3,850	1,590	3,020	1,350	2,510
5	11,100	7,100	5,680	22,900	4,650	6,320	24,400	3,560	1,350	2,670	1,350	2,280
6	11,100	6,060	5,200	19,200	4,250	6,840	21,700	7,490	1,230	2,670	2,070	1,410
7	11,100	7,880	4,650	15,900	7,360	12,600	19,200	11,800	1,000	2,000	2,000	1,290
8	9,800	7,620	4,870	13,800	18,400	15,300	18,100	11,900	1,000	1,230	1,410	1,170
9	7,880	7,100	7,360	12,300	22,100	16,400	17,700	9,380	1,000	1,050	1,170	1,650
10	7,360	5,800	9,520	12,000	26,200	16,500	15,900	7,230	1,000	1,350	1,000	2,140
11	6,580	4,870	18,400	12,900	29,000	13,800	15,600	5,560	1,000	5,680	900	2,280
12	5,090	4,650	26,000	12,300	29,600	10,400	16,500	4,980	950	6,320	850	2,140
13	3,950	4,650	34,800	10,100	26,400	9,520	17,600	6,060	1,530	5,440	800	1,790
14	3,110	4,050	45,500	8,400	23,200	8,820	17,600	8,680	1,530	5,560	800	1,350
15	3,470	3,650	53,500	7,620	21,600	7,750	19,500	9,240	2,350	2,140	1,000	1,170
16	16,500	3,290	55,300	6,710	21,300	7,100	21,300	7,230	2,350	4,550	1,110	1,050
17	30,300	3,290	53,500	6,060	20,900	6,320	19,700	5,440	2,000	5,200	1,230	900
18	37,700	3,560	50,500	5,680	21,100	6,450	17,600	4,870	1,590	4,980	1,050	850
19	44,300	4,350	45,100	5,680	20,600	12,300	14,700	4,450	1,410	3,470	900	850
20	48,000	5,090	38,900	5,930	19,700	19,700	11,800	3,850	1,290	2,140	900	850
21	45,500	5,090	32,700	5,680	20,600	23,500	10,100	3,200	1,110	1,470	950	1,050
22	40,800	4,650	29,200	5,680	22,200	28,000	10,100	2,590	1,050	1,350	900	900
23	34,600	4,150	27,100	9,800	24,500	30,500	10,500	2,070	1,050	1,230	800	760
24	28,400	3,650	26,400	12,800	25,900	29,200	11,100	2,070	1,000	1,230	760	680
25	22,500	3,380	29,200	16,800	23,000	25,900	10,900	2,000	720	1,170	720	640
26	20,500	10,100	32,000	18,900	20,300	23,200	8,820	2,000	720	4,550	680	560
27	21,900	14,100	33,200	18,200	17,700	20,900	7,100	2,000	720	4,760	680	560
28	21,900	15,200	35,600	14,600	15,800	18,200	6,710	2,350	720	5,200	720	680
29	22,700	15,600	35,900	10,500	-------	14,400	6,060	3,020	720	4,870	950	680
30	23,000	14,800	35,900	8,680	-------	9,940	5,560	3,110	900	3,850	1,290	1,170
31	21,900	-------	34,600	7,230	-------	8,960	-------	2,670	-------	3,200	2,510	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	48,000	3,110	19,900	4.43	5.11
November	18,500	3,290	7,560	1.68	1.87
December	55,300	4,650	27,300	6.08	7.01
January	33,200	5,680	13,700	3.05	3.52
February	29,600	4,250	18,200	4.05	4.22
March	30,500	6,320	14,500	3.23	3.72
April	24,500	5,560	15,100	3.36	3.75
May	11,900	2,000	5,060	1.13	1.30
June	2,350	720	1,300	.290	.32
July	6,320	1,050	3,290	.733	.85
August	2,590	680	1,200	.267	.31
September	2,840	560	1,390	.310	.35
The year	55,300	560	10,700	2.38	32.33

TOMBIGBEE RIVER NEAR COATOPA, ALA.

LOCATION.—Chain gage in T. 17 N., R. 1 E., at Moscow Memorial Bridge, 2 miles above Sucarnoochee Creek and 5 miles southeast of Coatopa.
DRAINAGE AREA.—15,500 square miles.
RECORDS AVAILABLE.—August 1928 to September 1933.
DISCHARGE.—Maximum during year, 153,000 second-feet Dec. 22, 23; maximum gage height, 49.53 feet Dec. 22; minimum, 1,440 second-feet Sept. 29 (gage height, 3.12 feet).

1928–33: Maximum, 179,000 second-feet Mar. 29, 1929 (gage height, 51.4 feet); minimum, 371 second-feet Oct. 1, 1931 (gage height, 2.32 feet).
REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,000	84,200	57,100	134,000	28,400	61,800	56,000	22,400	8,090	6,300	12,900	7,200
2	18,400	79,400	55,700	137,000	23,500	58,200	56,800	21,300	7,200	6,180	9,440	8,920
3	17,600	72,800	51,800	133,000	21,500	52,400	55,100	18,800	5,420	6,690	7,500	9,180
4	17,600	66,400	43,500	130,000	18,800	45,400	53,200	16,000	3,760	6,690	6,000	8,650
5	16,800	57,300	33,800	129,000	17,200	37,900	51,600	17,200	3,760	6,180	5,130	7,800
6	15,800	49,400	25,300	125,000	16,200	30,400	49,800	19,800	3,300	7,200	4,560	6,300
7	15,200	40,200	20,700	121,000	17,600	30,400	47,600	21,700	3,300	4,280	5,420	3,760
8	14,800	38,100	23,600	114,000	35,400	34,200	45,800	23,500	3,300	3,090	5,420	4,280
9	14,400	37,000	25,300	106,000	47,800	37,000	44,900	25,000	2,880	3,760	4,280	4,010
10	13,100	32,600	26,500	103,000	53,200	38,600	44,700	24,300	2,460	4,560	4,010	3,760
11	11,100	29,400	35,000	97,700	57,700	38,800	44,700	23,500	3,520	4,840	3,090	4,280
12	10,400	22,000	45,800	92,100	60,600	38,300	47,600	20,600	4,560	7,800	3,090	4,840
13	9,440	17,200	57,100	86,700	62,700	36,300	47,800	16,000	4,280	12,900	2,880	4,560
14	7,800	15,200	67,400	79,700	63,200	32,600	49,600	13,900	4,010	12,200	2,670	5,130
15	7,500	13,500	75,200	72,200	62,700	28,100	55,500	13,500	3,760	11,500	2,560	4,560
16	32,800	12,400	85,400	60,800	60,400	24,700	60,100	14,600	4,010	9,440	2,560	3,760
17	59,000	12,000	97,100	49,800	60,100	21,500	61,300	14,400	4,280	9,930	2,670	3,300
18	74,300	11,800	110,000	43,000	62,200	19,600	62,200	12,600	3,760	13,900	3,300	2,880
19	83,100	13,100	125,000	38,300	65,800	23,300	62,700	10,400	3,760	13,100	4,010	2,670
20	86,700	14,400	139,000	31,300	73,700	43,400	62,000	9,440	3,090	10,800	3,760	2,250
21	104,000	16,400	149,000	25,800	78,400	56,000	59,700	8,920	2,880	8,650	2,880	2,360
22	92,100	18,000	153,000	21,900	78,700	59,300	54,400	7,800	2,250	6,600	2,880	2,460
23	95,500	17,200	153,000	19,200	78,400	61,800	48,200	6,900	1,830	5,420	2,880	2,040
24	99,700	15,200	149,000	20,000	76,800	64,400	42,600	6,000	1,940	5,130	2,250	2,460
25	99,700	14,800	144,000	29,100	75,200	66,600	37,000	5,130	2,040	7,500	2,140	2,360
26	102,000	26,400	140,000	41,000	72,800	68,400	33,200	4,840	1,940	13,300	1,940	2,040
27	103,000	39,500	142,000	44,300	70,300	67,800	32,000	4,560	2,460	16,400	1,730	1,630
28	102,000	47,600	139,000	45,100	66,800	65,100	30,300	5,130	2,560	20,000	1,830	1,540
29	99,000	52,400	135,000	44,500	------	63,200	27,200	6,600	2,880	20,700	2,880	1,630
30	93,800	55,700	133,000	40,600	------	58,600	24,300	8,090	4,560	19,400	3,520	1,730
31	89,300	------	134,000	35,200	------	54,600	------	8,650	------	16,200	6,300	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	104,000	7,500	52,400	3.38	3.90
November	84,200	11,800	34,100	2.20	2.46
December	153,000	20,700	89,400	5.77	6.65
January	137,000	19,200	72,600	4.68	5.40
February	78,700	16,200	53,800	3.47	3.61
March	68,400	19,600	45,800	2.95	3.40
April	62,700	24,300	48,300	3.12	3.48
May	25,000	4,560	13,900	.897	1.03
June	8,090	1,830	3,590	.232	.26
July	20,700	3,090	10,100	.652	.75
August	12,900	1,730	4,080	.263	.30
September	9,180	1,540	4,080	.263	.29
The year	153,000	1,540	36,000	2.32	31.53

TOMBIGBEE RIVER NEAR LEROY, ALA.

LOCATION.—Staff gage just above Lock 1 in T. 7 N., on St. Stephens meridian, 6 miles northwest of Leroy. Zero of gage is 4.69 feet below mean sea level.
DRAINAGE AREA.—19,100 square miles.
RECORDS AVAILABLE.—October 1928 to September 1933.
DISCHARGE.—Maximum during year, 165,000 second-feet Dec. 29 (gage height, 44.7 feet); minimum, 2,350 second-feet Sept. 30 (gage height, 18.30 feet).
1928–33: Maximum, 190,000 second-feet Apr. 2, 1929 (gage height, 46.0 feet); minimum not determined.
REMARKS.—Records good for high stages and fair for low and medium stages.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,000	97,400	52,800	156,000	49,700	81,700	74,700	35,200	10,000	6,650	21,700	7,510
2	20,900	96,500	56,000	153,000	45,700	80,300	75,400	31,400	9,470	10,600	17,900	8,450
3	21,300	95,600	58,700	149,000	39,900	77,500	74,700	28,700	7,970	12,600	13,000	9,470
4	20,900	94,800	58,700	143,000	36,100	73,500	73,500	25,300	6,650	13,000	10,000	10,600
5	20,900	92,200	56,900	140,000	31,900	68,700	71,100	24,600	6,250	11,800	8,450	9,470
6	20,400	88,100	50,600	138,000	28,400	62,700	68,700	25,300	5,140	10,600	7,510	8,450
7	20,000	81,700	43,400	136,000	25,600	56,900	66,200	25,600	4,790	8,950	6,650	7,510
8	19,000	72,900	37,900	133,000	31,700	52,400	63,700	25,900	4,450	7,510	6,650	6,650
9	17,900	64,200	35,200	131,000	41,900	50,600	61,700	26,600	4,280	6,650	6,650	6,250
10	16,700	57,400	34,400	127,000	48,900	49,700	59,700	27,800	4,790	5,870	6,250	5,870
11	16,100	51,500	37,600	124,000	54,600	48,900	59,700	27,800	6,650	7,070	5,870	5,500
12	13,000	45,700	43,400	120,000	58,700	48,900	59,700	27,200	7,510	7,970	5,140	5,500
13	11,800	38,500	48,900	116,000	62,200	48,100	60,700	24,900	6,650	10,600	4,450	5,870
14	10,600	32,200	55,100	112,000	64,700	46,900	61,700	21,700	6,250	15,500	4,120	6,250
15	10,600	25,600	61,200	106,000	67,200	44,200	68,700	18,400	5,500	17,900	3,800	6,250
16	21,700	20,000	66,700	100,000	68,200	39,900	73,500	17,300	5,500	16,100	3,800	5,870
17	42,300	16,700	71,100	94,800	68,700	36,100	74,700	17,900	5,500	15,500	4,450	5,140
18	55,100	16,100	77,500	89,700	69,900	32,200	75,400	17,300	5,500	13,500	5,140	4,790
19	62,200	16,100	81,700	81,700	71,100	32,200	74,700	15,500	5,500	21,300	6,650	4,280
20	66,700	17,900	86,500	71,100	73,500	47,300	73,500	13,600	5,140	19,000	6,650	3,800
21	70,500	19,000	91,400	59,700	76,100	58,700	73,500	12,400	4,280	15,500	5,870	3,490
22	73,500	20,900	98,200	49,700	78,900	63,700	72,300	10,600	3,800	13,000	5,140	3,190
23	77,500	21,300	108,000	42,300	81,700	66,200	71,100	9,470	3,640	10,600	4,120	3,040
24	80,300	20,900	119,000	37,900	83,300	67,700	67,700	8,450	3,340	10,000	3,800	3,040
25	81,700	20,000	133,000	37,000	84,900	69,300	63,200	7,510	3,340	12,600	3,490	3,040
26	85,700	23,200	150,000	41,900	84,900	71,700	57,800	6,650	3,490	17,900	3,490	2,900
27	88,900	30,100	158,000	47,300	84,100	72,900	52,400	6,650	3,800	22,500	3,190	2,620
28	91,400	37,300	164,000	50,600	83,300	73,500	47,700	6,650	3,960	25,300	3,190	2,480
29	93,100	43,800	165,000	52,400	-------	74,700	44,200	6,650	4,280	26,200	3,190	2,480
30	94,800	48,900	164,000	53,300	-------	74,700	39,200	7,510	5,140	25,900	3,490	2,350
31	96,500	-------	161,000	52,400	-------	73,500	-------	8,950	-------	24,200	4,790	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	96,500	10,600	46,500	2.43	2.80
November	97,400	16,100	46,900	2.46	2.74
December	165,000	34,400	84,700	4.43	5.11
January	156,000	37,000	95,000	4.97	5.73
February	84,900	25,600	60,600	3.17	3.30
March	81,700	32,200	59,500	3.12	3.60
April	75,400	39,200	65,400	3.42	3.82
May	35,200	6,650	18,400	.963	1.11
June	10,000	3,340	5,420	.284	.32
July	26,200	5,870	14,500	.759	.88
August	21,700	3,190	6,410	.336	.39
September	10,600	2,350	5,400	.283	.33
The year	165,000	2,350	42,400	2.22	30.13

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

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

DRAINAGE AREA.—365 square miles.

RECORDS AVAILABLE.—June 1928 to September 1933.

DISCHARGE.—Maximum during year, 24,800 second-feet Oct. 16 (gage height, 16.3 feet); minimum, 8 second-feet Sept. 27, 28 (gage height, 2.06 feet).

1928–33: Maximum, 30,400 second-feet Nov. 14, 1929 (gage height, 17.96 feet); minimum, 3 second-feet Sept. 28–30, Oct. 1, 3–6, 1931 (gage height, 1.88 feet).

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	512	752	2,510	430	785	2,170	660	78	52	184	150
2	34	405	660	1,970	430	720	1,030	600	67	159	82	168
3	31	335	570	1,680	380	630	885	540	59	43	162	232
4	47	290	540	1,410	358	600	720	485	53	48	76	71
5	52	270	485	1,150	358	512	630	1,400	47	35	135	45
6	120	270	458	955	358	512	785	990	43	22	72	150
7	78	250	1,320	885	2,070	1,030	630	738	40	19	53	57
8	56	250	990	850	3,730	785	512	4,410	34	17	40	47
9	44	250	660	1,870	1,680	600	485	1,590	32	15	29	33
10	40	240	4,050	1,680	1,230	752	430	1,030	34	93	20	30
11	37	226	7,970	1,320	1,150	570	885	785	32	156	14	36
12	33	212	12,800	1,150	990	570	690	690	84	84	17	66
13	29	201	6,430	1,030	885	570	512	540	53	56	28	132
14	27	190	11,800	920	955	540	430	458	35	48	31	98
15	31	187	5,170	818	3,360	785	1,970	405	30	1,030	22	48
16	11,200	180	3,730	752	2,750	540	1,590	335	24	278	19	31
17	8,570	174	4,370	690	2,170	512	1,070	290	23	144	19	25
18	2,750	250	3,010	630	1,770	540	885	250	21	95	17	180
19	1,590	540	2,510	600	1,500	2,920	752	218	19	60	14	80
20	1,230	380	2,170	570	4,850	3,430	660	190	17	670	13	41
21	920	312	2,070	540	2,390	2,070	1,150	165	17	156	12	31
22	720	290	2,070	1,630	1,870	1,590	630	150	15	76	10	23
23	630	270	2,070	920	1,500	1,320	584	135	15	52	10	14
24	540	250	2,750	630	1,320	1,030	3,580	118	16	49	9	11
25	485	720	3,290	752	1,150	1,150	1,680	112	31	174	9	9
26	660	3,890	2,270	660	1,230	885	1,410	100	60	129	358	9
27	990	1,770	5,010	600	990	752	1,320	150	38	600	405	8
28	660	1,320	9,660	512	885	660	990	250	84	885	84	10
29	512	1,070	4,530	511	-------	600	885	187	47	229	222	36
30	458	920	3,010	458	-------	540	752	120	89	115	222	22
31	458	-------	4,370	458	-------	920	-------	93	-------	76	138	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,200	27	1,070	2.93	3.38
November	3,890	174	547	1.50	1.67
December	12,800	458	3,600	9.86	11.37
January	2,510	458	1,000	2.74	3.16
February	4,850	358	1,530	4.19	4.36
March	3,430	512	949	2.60	3.00
April	3,580	430	1,020	2.79	3.11
May	4,410	93	587	1.61	1.86
June	89	15	41	.112	.12
July	1,030	15	181	.496	.57
August	405	9	81	.222	.26
September	232	8	63	.173	.19
The year	12,800	8	889	2.44	33.05

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

LOCATION.—Staff gage in T. 18 S., R. 8 W., at Lock 17, 1½ miles below Big Yellow Creek and 23 miles west of Bessemer. Zero of gage is 173.11 feet above mean sea level.

DRAINAGE AREA.—3,980 square miles.

RECORDS AVAILABLE.—June 1928 to September 1933.

DISCHARGE.—Maximum during year, 93,000 second-feet Dec. 12 (gage height, 77.70 feet); minimum, 166 second-feet June 22, Sept. 26–30 (gage height, 69.56 feet).

1928–33: Maximum, 133,000 second-feet Nov. 15, 1929 (gage height, 79.94 feet); minimum not determined.

Maximum stage known, 80.3 feet July 9, 1916.

REMARKS.—Records fair. Daily discharge not sufficiently accurate for publication. Flow regulated by storage above Lock and Dam 17. Records do not include leakage, which probably amounts to 80 second-feet.

Discharge, in second-feet, 1932–33

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	89,400	320	12,000	3.02	3.48
November	49,200	1,340	7,510	1.89	2.11
December	89,400	3,460	32,500	8.17	9.42
January	27,600	3,680	9,490	2.38	2.74
February	37,200	2,850	14,700	3.69	3.84
March	42,200	3,860	9,710	2.44	2.81
April	19,400	5,210	9,810	2.46	2.74
May	9,480	890	3,380	.849	.98
June	2,560	184	583	.146	.16
July	2,610	240	927	.233	.27
August	3,250	202	793	.199	.23
September	3,300	166	808	.203	.23
The year	89,400	166	8,500	2.14	29.01

BLACK WARRIOR RIVER AT TUSCALOOSA, ALA.

LOCATION.—Staff gage in T. 21 S., R. 10 W., at Lock 10, in Tuscaloosa. Zero of gage is 82.97 feet above mean sea level.

DRAINAGE AREA.—4,830 square miles.

RECORDS AVAILABLE.—January 1889 to December 1905; August 1928 to September 1933.

DISCHARGE.—Maximum during year, 127,000 second-feet Oct. 17; maximum gage height, 61.40 feet Oct. 18; minimum, 390 second-feet Aug. 25, Sept. 29 (gage height, 18.74 feet).

1889–1905, 1928–33: Maximum, 215,000 second-feet Apr. 18, 1900 (gage height, 67.7 feet); minimum (estimated), 50 second-feet Aug. 26, 1929. Average, 13 years (1894–1902, 1928–33), 8,260 second-feet.

Maximum stage known, that of Apr. 18, 1900.

REMARKS.—Records fair. Discharge determined by using rate of change in stage as a factor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,170	5,330	14,200	24,200	5,690	9,850	17,800	6,420	1,500	4,000	1,400	3,710
2	1,040	4,970	10,400	17,600	5,330	8,660	21,100	5,690	1,280	1,910	1,170	3,290
3	1,040	4,300	7,530	13,100	4,970	7,530	17,200	5,330	1,140	1,600	1,090	2,620
4	840	4,000	6,420	10,400	4,620	6,790	13,300	4,970	964	1,310	1,110	2,020
5	1,170	3,430	5,690	8,850	4,300	6,420	10,800	7,900	872	1,160	2,250	1,700
6	1,700	4,300	5,330	7,850	4,300	6,420	10,800	11,000	825	856	1,700	1,500
7	2,020	6,050	6,790	6,800	12,200	8,280	11,600	10,100	825	755	1,400	1,260
8	1,700	5,330	9,700	13,000	41,100	10,400	11,100	7,160	685	713	1,110	1,400
9	1,310	4,620	9,670	24,700	37,000	10,500	10,100	9,600	1,010	601	887	1,400
10	1,060	4,000	11,400	24,600	26,300	9,500	8,660	10,100	1,090	699	755	1,110
11	887	3,710	50,200	21,000	20,000	7,900	10,800	6,790	2,020	577	673	1,090
12	797	3,290	109,000	17,500	17,600	7,530	11,100	4,970	1,500	1,220	625	996
13	741	3,020	118,000	14,900	14,400	7,160	10,200	4,000	1,310	1,210	577	1,310
14	673	2,750	94,000	12,500	12,100	6,790	8,660	4,000	1,500	1,160	542	1,500
15	1,600	2,620	75,500	10,600	16,200	6,420	10,300	3,430	1,120	1,280	769	1,400
16	58,100	2,620	60,200	9,050	28,000	6,050	18,400	2,880	934	1,910	1,110	1,170
17	124,000	2,620	54,300	7,900	26,500	5,690	20,400	2,500	797	2,130	1,060	964
18	115,000	2,750	43,100	7,160	26,200	4,970	16,300	2,250	699	1,700	887	886
19	79,000	5,330	29,600	6,790	24,800	16,200	13,100	2,020	625	1,400	741	713
20	41,200	7,900	20,500	6,420	31,000	47,300	10,800	1,800	565	1,190	685	727
21	20,700	7,160	15,000	6,050	35,100	44,900	9,050	1,700	542	1,110	577	673
22	12,200	5,690	12,600	5,690	28,200	35,300	11,600	1,600	462	1,110	530	601
23	9,100	4,970	11,700	6,420	22,700	25,200	11,100	1,600	450	1,090	473	589
24	7,500	4,300	15,400	7,530	20,000	19,600	10,100	1,500	450	1,060	450	554
25	6,000	6,420	27,900	11,800	16,300	16,400	15,000	1,400	825	1,310	390	473
26	5,400	43,500	25,200	12,900	13,800	14,200	14,200	1,290	713	1,500	484	430
27	8,600	47,900	33,800	11,200	12,500	11,600	11,800	1,600	530	1,800	699	410
28	10,800	33,400	75,200	9,050	11,100	9,050	10,300	2,750	1,080	2,250	1,500	410
29	9,440	23,700	70,200	7,160	-------	7,530	9,050	3,430	1,800	3,290	2,880	390
30	6,790	17,700	48,300	6,420	-------	7,160	7,160	2,620	2,370	2,750	4,000	554
31	5,690	-------	33,300	5,690	-------	8,660	-------	2,020	-------	1,910	3,710	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	124,000	673	17,300	3.58	4.13
November	47,900	2,620	9,260	1.92	2.14
December	118,000	5,330	35,800	7.41	8.54
January	24,700	5,690	11,400	2.36	2.72
February	41,100	4,300	18,700	3.87	4.03
March	47,300	4,970	12,900	2.67	3.08
April	21,100	7,160	12,400	2.57	2.87
May	11,000	1,290	4,340	.899	1.04
June	2,370	450	1,020	.211	.24
July	4,000	577	1,500	.311	.36
August	4,000	390	1,170	.242	.28
September	3,710	390	1,190	.246	.27
The year	124,000	390	10,600	2.19	29.70

BLACK WARRIOR RIVER NEAR EUTAW, ALA.

LOCATION.—Water-stage recorder in SE¼ sec. 6, T. 21 N., R. 3 E., at highway bridge between Eutaw and Wedgworth, 1¼ miles below mouth of Big Creek and 4 miles southeast of Eutaw.

DRAINAGE AREA.—5,820 square miles.

RECORDS AVAILABLE.—May 1932 to September 1933.

DISCHARGE.—Maximum during year, 85,600 second-feet Dec. 16; maximum gage height, 54.41 feet Dec. 17; minimum, 600 second-feet Aug. 26 (gage height, 19.09 feet).

1932–33: Maximum and minimum same as given above.

REMARKS.—Records good. Discharge determined by using surface slope as a factor.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,800	9,200	28,100	61,600	8,000	14,400	11,800	8,400	2,380	4,510	2,340	3,910
2	1,480	7,200	21,900	57,200	7,400	12,600	18,300	7,450	1,930	4,390	1,860	4,030
3	1,400	6,700	14,400	52,300	7,000	10,700	22,400	6,800	1,640	2,880	1,570	3,790
4	1,300	6,000	10,000	45,400	6,600	10,000	20,900	5,850	1,460	2,130	1,400	3,190
5	1,400	5,120	8,700	38,800	6,100	9,000	16,400	7,400	1,370	1,780	1,600	2,530
6	1,650	5,009	7,800	32,500	5,750	8,800	13,300	10,200	1,260	1,530	2,070	2,170
7	2,110	6,300	7,600	27,900	6,550	9,800	13,700	12,700	1,200	1,240	1,990	1,880
8	2,210	7,100	9,100	25,300	15,300	11,200	13,800	11,000	1,150	1,010	1,690	1,820
9	1,930	6,400	11,100	24,200	25,800	12,600	13,800	9,000	1,270	1,020	1,400	1,950
10	1,580	5,700	11,600	25,000	31,600	12,700	12,100	10,400	1,690	1,140	1,150	1,740
11	1,300	5,250	15,400	26,800	32,700	11,900	13,400	10,200	2,600	1,300	994	1,550
12	1,150	4,750	26,800	26,200	30,600	10,800	15,100	7,900	2,720	1,500	928	1,460
13	1,090	4,510	37,100	24,400	26,200	9,700	15,500	5,800	2,230	1,640	876	1,780
14	1,010	4,030	50,400	20,400	20,400	9,100	14,100	5,250	2,010	1,620	838	1,970
15	3,550	3,790	72,500	17,400	17,800	8,800	13,600	4,750	1,930	1,620	876	1,930
16	19,100	3,550	84,000	13,400	16,000	8,500	15,000	4,270	1,600	1,800	1,210	1,760
17	30,000	3,550	83,600	11,600	20,800	7,800	18,900	3,790	1,400	2,400	1,450	1,530
18	36,900	3,670	77,500	10,400	24,800	7,400	21,500	3,310	1,240	2,560	1,460	1,290
19	46,000	4,510	72,200	9,300	22,700	8,400	19,600	2,880	1,140	2,300	1,240	1,140
20	63,200	6,600	64,000	8,800	27,700	19,000	16,000	2,650	1,060	1,910	1,080	1,010
21	69,300	7,900	56,000	8,600	29,100	26,100	12,200	2,380	980	1,600	941	1,010
22	62,200	7,900	49,000	7,100	31,100	33,400	12,000	2,170	928	1,450	838	941
23	53,100	6,000	43,400	7,600	32,500	36,600	13,300	2,090	876	1,480	762	902
24	42,300	5,000	42,600	8,100	31,600	35,300	13,000	2,010	863	1,570	702	850
25	31,400	5,500	39,200	13,800	29,900	32,000	12,300	1,930	1,010	2,210	633	775
26	25,300	11,900	41,000	16,000	27,200	26,100	15,600	1,820	1,320	2,600	633	738
27	23,300	24,500	42,600	16,600	22,600	21,900	15,400	1,820	1,220	2,720	714	679
28	19,200	32,300	46,600	14,600	17,800	15,700	13,200	2,130	1,370	3,070	980	656
29	17,200	35,500	52,000	12,600	------	12,000	11,700	3,070	2,490	3,310	1,570	656
30	13,400	33,600	57,700	10,400	------	10,500	9,800	3,550	3,190	3,550	3,550	644
31	10,100	------	60,000	8,750	------	9,200	------	3,070	------	3,070	4,270	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	69,300	1,010	18,900	3.25	3.75
November	35,500	3,550	9,300	1.60	1.78
December	84,000	7,600	40,100	6.89	7.94
January	61,600	7,100	22,000	3.78	4.36
February	32,700	5,750	20,800	3.57	3.72
March	36,600	7,400	15,200	2.61	3.01
April	22,400	9,800	14,900	2.56	2.86
May	12,700	1,820	5,360	.921	1.06
June	3,190	863	1,580	.271	.30
July	4,510	1,010	2,160	.371	.43
August	4,270	633	1,410	.242	.28
September	4,030	644	1,680	.289	.32
The year	84,000	633	12,800	2.20	29.81

SIPSEY FORK OF MULBERRY FORK OF BLACK WARRIOR RIVER NEAR SIPSEY, ALA.

LOCATION.—Staff gage in T. 13 S., R. 5 W., 200 feet below Lieth Creek, 3½ miles northeast of Sipsey, and 5 miles above mouth.
DRAINAGE AREA.—1,020 square miles.
RECORDS AVAILABLE.—September 1928 to September 1933.
DISCHARGE.—Maximum during year, 46,200 second-feet Oct. 17 (gage height, 51.60 feet); minimum, 78 second-feet Sept. 28 (gage height, 4.00 feet).
1928–33: Maximum, 50,400 second-feet Nov. 14, 1929 (gage height, 56.30 feet); minimum, 5 second-feet June 30, 1930 (gage height, 2.99 feet).
REMARKS.—Records fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	184	1,320	2,290	5,950	1,130	2,180	4,300	1,780	295	215	277	1,460
2	159	1,130	1,780	4,150	1,130	1,840	3,370	1,580	259	295	268	578
3	145	880	1,460	3,500	1,060	1,580	2,760	1,460	232	264	222	390
4	139	825	1,260	3,210	1,000	1,460	2,240	1,260	222	222	194	415
5	1,460	770	1,130	2,890	1,000	1,320	1,910	2,390	212	212	272	277
6	770	715	1,060	2,570	940	1,200	2,440	3,340	201	197	340	318
7	415	770	1,650	2,240	2,570	1,480	2,860	2,050	190	134	212	390
8	286	825	2,690	2,120	10,900	2,730	2,340	2,610	184	127	165	240
9	226	770	1,780	3,260	6,200	2,240	1,980	2,800	218	104	153	198
10	201	715	3,640	3,670	3,500	2,180	1,720	1,520	825	113	128	212
11	171	688	18,800	3,260	3,180	1,910	1,840	1,060	550	223	121	268
12	153	660	26,900	2,980	2,890	1,720	2,480	940	365	467	99	264
13	142	578	18,500	2,650	2,520	1,840	1,650	1,840	318	317	93	415
14	131	522	21,600	2,340	2,440	1,780	1,520	1,130	254	495	1,320	286
15	168	522	12,900	2,050	8,200	1,720	2,690	880	222	687	522	194
16	19,000	522	8,980	1,720	6,800	1,580	7,660	770	190	940	295	153
17	43,000	578	7,300	1,580	4,850	1,260	4,450	660	168	632	212	134
18	21,100	550	6,150	1,460	3,980	1,260	3,340	605	159	605	180	180
19	8,680	1,390	4,520	1,390	3,370	4,250	2,890	522	150	365	156	318
20	4,150	1,840	3,720	1,260	8,000	12,500	2,570	468	139	272	295	201
21	2,490	1,390	3,610	1,200	6,800	7,190	3,490	415	128	295	156	145
22	1,680	1,130	5,650	1,130	4,300	4,550	3,670	390	121	243	123	118
23	1,460	1,000	8,250	3,040	3,500	3,400	3,160	415	116	212	111	104
24	1,130	880	10,600	2,480	3,160	2,920	4,900	365	121	223	95	93
25	940	1,260	11,300	2,180	2,890	2,610	4,650	340	295	272	88	84
26	1,260	13,700	7,150	2,390	2,800	2,570	3,430	318	390	715	318	82
27	3,260	7,850	10,000	1,910	2,690	2,050	3,280	365	218	825	415	80
28	2,950	4,450	19,400	1,720	2,290	1,720	2,860	1,000	177	940	578	88
29	2,120	3,260	11,900	1,460	------	1,520	2,570	660	165	1,000	440	153
30	1,460	2,760	7,700	1,320	------	1,320	2,180	440	159	550	660	147
31	1,260	------	6,590	1,260	------	2,050	------	340	------	365	632	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	43,000	131	3,890	3.81	4.39
November	13,700	522	1,810	1.77	1.98
December	26,900	1,060	8,070	7.91	9.12
January	5,950	1,130	2,400	2.35	2.71
February	10,900	940	3,720	3.65	3.80
March	12,500	1,200	2,580	2.53	2.92
April	7,660	1,520	3,040	2.98	3.32
May	3,340	318	1,120	1.10	1.27
June	825	116	241	.236	.26
July	1,000	104	403	.395	.46
August	1,320	88	295	.289	.33
September	1,460	80	266	.261	.29
The year	43,000	80	2,320	2.27	30.85

LOCUST FORK OF BLACK WARRIOR RIVER AT TRAFFORD, ALA.

LOCATION.—Chain gage in T. 14 S., R. 2 W., at highway bridge three-quarters of a mile northwest of Trafford and 1½ miles east of Coaldale.
DRAINAGE AREA.—622 square miles.
RECORDS AVAILABLE.—September 1930 to September 1933.
DISCHARGE.—Maximum during year, 19,700 second-feet Dec. 12 (gage height, 31.15 feet); minimum, 22 second-feet Aug. 26 (gage height, 2.54 feet).
1930–33: Maximum 22,200 second-feet Jan. 30, 1932 (gage height, 33.50 feet); minimum, 8 second-feet Oct. 2, 19–21, 1931 (gage height, 2.39 feet).
REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	741	1,120	4,230	573	1,280	5,230	845	187	120	97	1,200
2	78	707	950	3,140	573	1,120	2,580	775	168	153	106	573
3	70	540	810	2,580	540	985	1,850	775	138	112	380	284
4	114	444	741	2,160	508	880	1,440	673	120	153	268	187
5	221	380	673	1,850	508	810	1,200	639	114	141	236	196
6	252	364	606	1,600	444	741	1,320	810	106	84	252	236
7	159	380	707	1,400	2,630	1,020	1,760	707	100	66	184	268
8	117	396	1,020	1,320	8,510	1,520	1,320	2,390	100	58	141	190
9	89	348	775	2,940	4,060	1,200	1,090	2,680	100	46	89	147
10	73	348	1,560	3,040	2,480	1,020	950	1,160	97	66	73	120
11	63	316	6,190	2,340	2,080	985	1,090	810	97	70	66	100
12	58	284	17,700	2,030	1,720	880	1,090	639	126	60	97	880
13	56	268	14,800	1,720	1,480	880	810	540	144	60	117	476
14	53	236	10,600	1,480	1,320	845	707	444	109	66	193	221
15	63	236	10,300	1,320	3,240	845	1,090	380	78	412	117	168
16	6,020	236	6,250	1,160	3,740	880	1,850	332	70	300	117	126
17	11,200	252	11,000	1,060	2,880	707	1,400	284	73	190	106	89
18	5,000	300	7,290	950	2,740	639	1,090	252	60	178	78	132
19	2,540	444	5,000	880	2,480	3,670	915	221	48	117	78	174
20	1,640	1,060	3,900	810	5,590	10,500	810	209	46	109	84	132
21	1,200	741	3,240	775	4,560	4,890	1,560	196	53	144	73	97
22	915	606	2,880	741	3,140	3,040	1,060	181	53	141	56	78
23	741	508	2,480	741	2,440	2,210	880	174	46	117	43	63
24	639	476	2,940	673	1,980	1,800	3,180	162	84	97	39	56
25	508	444	5,290	915	1,720	1,720	2,340	181	60	181	25	48
26	639	4,340	4,120	1,320	1,900	1,640	1,640	199	60	150	24	46
27	1,400	3,240	5,950	1,020	1,640	1,320	1,800	673	112	132	46	43
28	915	2,210	14,200	845	1,400	1,120	1,480	1,240	95	508	39	41
29	673	1,640	10,000	707	-------	985	1,200	444	70	332	380	39
30	573	1,360	5,470	673	-------	880	1,020	284	66	165	508	70
31	540	-------	5,590	606	-------	1,740	-------	212	-------	135	707	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,200	53	1,180	1.90	2.19
November	4,340	236	795	1.28	1.43
December	17,700	606	5,300	8.52	9.82
January	4,230	606	1,520	2.44	2.81
February	8,510	444	2,390	3.84	4.00
March	10,500	639	1,700	2.73	3.15
April	5,230	707	1,530	2.46	2.74
May	2,680	162	629	1.01	1.16
June	187	46	93	.150	.17
July	508	46	150	.241	.28
August	707	24	155	.249	.29
September	1,200	39	216	.347	.39
The year	17,700	24	1,300	2.09	28.43

PASCAGOULA RIVER BASIN

PASCAGOULA RIVER AT MERRILL, MISS.

LOCATION.—Staff gage in T. 1 S., R. 7 W., St. Stephens base and meridian, at highway bridge half a mile below confluence of Leaf and Chickasawhay Rivers and half a mile west of Merrill. Zero of gage is 24.1 feet above mean sea level.
DRAINAGE AREA.—6,600 square miles.
RECORDS AVAILABLE.—December 1930 to September 1933.
DISCHARGE.—Maximum during year, 55,000 second-feet Apr. 16 (gage height, 23.70 feet); minimum, 1,440 second-feet Oct. 14 (gage height, 3.40 feet).
1930–33: Maximum discharge, that of Apr. 16, 1933; minimum, 1,000 second-feet Oct. 30, Nov. 4, 8–12, 1931 (gage height, (2.70 feet).
REMARKS.—Records fair.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,130	11,800	7,520	41,700	20,600	27,900	17,200	19,100	3,990	3,000	17,400	4,350
2	2,130	11,800	6,760	40,800	22,200	25,900	16,800	18,000	3,810	3,630	15,900	4,850
3	2,280	9,700	6,400	39,900	21,200	23,600	19,700	17,000	3,630	4,950	14,600	4,450
4	2,440	8,500	6,070	38,300	18,200	21,700	22,600	15,900	3,450	6,650	12,800	3,990
5	2,440	8,500	5,350	36,300	15,500	19,300	25,600	13,300	3,180	6,760	9,400	3,360
6	2,280	11,300	4,750	32,000	12,000	17,800	28,600	11,600	2,840	5,450	7,650	2,920
7	1,990	10,200	4,950	29,200	10,300	19,900	31,600	10,800	2,600	4,650	7,790	3,000
8	1,850	9,200	5,550	26,700	13,000	22,400	32,000	11,300	2,600	4,350	6,880	3,090
9	1,710	8,500	6,640	24,600	16,800	22,900	30,800	12,300	2,520	3,540	5,350	3,180
10	1,640	8,070	8,070	22,600	19,300	22,200	30,400	12,600	2,440	3,450	4,650	3,270
11	1,570	9,600	14,000	19,700	20,300	20,600	27,000	11,600	2,600	3,180	4,750	3,540
12	1,570	10,500	16,700	15,900	20,800	19,500	25,100	9,550	2,840	4,950	4,650	3,450
13	1,500	7,930	17,800	14,000	21,700	17,800	24,100	7,390	3,180	8,210	4,350	3,180
14	1,440	7,130	19,100	13,300	21,200	15,900	26,500	6,400	3,270	11,800	3,900	2,840
15	2,600	6,290	20,100	12,100	19,900	13,300	41,700	5,850	3,000	12,500	3,630	2,600
16	7,260	5,750	21,700	10,600	18,200	10,800	55,000	5,350	2,760	14,000	3,720	2,440
17	13,700	5,150	23,100	9,550	16,500	9,250	52,700	4,950	2,600	18,000	4,850	2,280
18	15,700	4,950	25,100	8,500	14,600	8,500	49,000	4,550	2,440	21,700	6,400	2,200
19	17,200	5,250	26,200	7,650	14,600	11,400	49,000	4,350	2,280	22,900	6,640	2,060
20	17,800	6,290	27,300	7,260	16,700	26,200	49,000	4,170	2,130	22,400	7,650	1,990
21	17,800	6,640	27,900	7,000	19,900	28,900	49,000	3,990	1,990	19,700	7,650	1,920
22	17,000	6,760	27,600	6,880	23,100	28,900	45,000	3,810	1,990	16,800	5,750	1,850
23	16,300	6,640	27,300	7,390	25,900	28,200	41,700	3,720	2,060	16,100	5,550	1,780
24	15,700	5,350	25,600	11,800	28,600	26,700	38,300	3,810	2,130	16,500	4,850	1,710
25	14,600	6,180	25,600	13,300	31,600	24,600	34,500	3,900	2,060	17,200	3,990	1,710
26	15,000	6,760	29,600	15,900	33,400	23,100	30,000	3,810	1,920	18,200	3,630	1,640
27	15,100	6,880	33,400	17,400	34,500	23,400	25,600	3,720	1,850	19,900	3,180	1,640
28	11,300	7,130	37,600	19,100	31,600	24,100	24,600	3,720	1,990	21,700	2,920	1,570
29	9,700	7,520	39,900	19,500	------	22,900	22,600	3,720	2,440	22,200	2,920	1,570
30	9,700	7,650	39,900	19,900	------	20,300	21,000	3,810	2,760	21,700	3,090	1,570
31	10,300	------	39,900	19,500	------	18,200	------	3,900	------	19,500	3,810	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	17,800	1,440	8,180	1.24	1.43
November	11,800	4,950	7,800	1.18	1.32
December	39,900	4,750	20,200	3.06	3.53
January	41,700	6,880	19,600	2.97	3.42
February	34,500	10,300	20,800	3.15	3.28
March	28,900	8,500	20,800	3.15	3.63
April	55,000	16,800	32,900	4.98	5.56
May	19,100	3,720	8,000	1.21	1.40
June	3,990	1,850	2,640	.400	.45
July	22,900	3,000	12,800	1.94	2.24
August	17,400	2,920	6,460	.979	1.13
September	4,850	1,570	2,670	.405	.45
The year	55,000	1,440	13,500	2.05	27.84

PEARL RIVER BASIN

PEARL RIVER AT EDINBURG, MISS.

LOCATION.—Staff gage in T. 11 N., R. 9 E. Choctaw meridian, at new highway bridge at Edinburg. Zero of gage is 341.57 feet above mean sea level.
DRAINAGE AREA.—898 square miles.
RECORDS AVAILABLE.—August 1928 to September 1933.
DISCHARGE.—Maximum during the year, 19,600 second-feet Dec. 14 (gage height, 26.12 feet); minimum, 30 second-feet Sept. 28 (gage height, 2.70 feet)
1928–33: Maximum, that of Dec. 14, 1932; minimum, 6 second-feet Oct. 27, 1931; minimum gage height, 1.63 feet Sept. 8, 1929.
Maximum stage known, 29.0 feet Mar. 1, 1902 (discharge not determined).
REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	1,190	1,160	8,180	1,190	2,810	2,080	1,980	211	106	903	276
2	74	1,160	1,100	7,170	1,220	2,730	2,330	1,980	134	95	846	276
3	59	1,140	1,120	5,980	1,190	2,370	2,050	1,760	122	151	827	263
4	90	1,120	1,140	4,940	1,160	1,980	1,670	1,610	117	211	827	224
5	175	1,060	1,190	4,240	1,140	1,820	1,520	1,700	112	224	846	199
6	139	1,700	1,190	3,510	1,080	1,850	1,670	1,730	112	237	846	362
7	128	2,020	1,360	2,940	1,610	2,570	1,490	1,910	106	211	789	290
8	106	2,650	1,390	2,570	3,410	2,810	1,290	1,670	106	163	644	276
9	95	2,530	1,490	3,120	3,820	2,730	1,320	1,460	100	128	472	250
10	84	1,940	2,300	3,560	3,660	2,300	2,120	1,240	106	478	362	237
11	74	1,520	3,820	3,460	3,610	2,020	3,610	1,060	100	941	304	211
12	69	1,290	8,050	3,080	4,240	1,980	3,880	922	90	1,320	347	199
13	62	1,220	14,800	2,690	4,300	2,080	3,880	770	54	1,420	304	175
14	52	1,140	19,600	2,490	3,940	2,050	4,060	644	39	1,120	263	139
15	128	1,190	18,600	2,410	3,510	1,880	4,370	539	37	1,040	199	117
16	2,410	1,240	16,800	2,290	3,220	1,730	4,650	392	37	1,390	163	106
17	2,810	1,240	14,800	2,080	2,990	1,610	4,940	276	34	1,520	175	95
18	3,510	1,240	12,000	1,910	2,770	1,420	4,940	250	33	1,640	290	163
19	3,560	1,340	9,480	1,760	2,610	2,730	5,020	211	33	1,580	377	134
20	3,510	1,360	7,660	1,610	3,040	3,120	4,720	175	33	1,340	290	95
21	4,240	1,260	6,600	1,490	3,040	3,170	4,240	151	33	1,120	211	74
22	4,300	1,100	6,180	1,390	2,940	2,770	3,660	151	33	1,080	163	54
23	3,760	980	5,700	1,340	2,690	2,690	2,990	175	35	980	163	40
24	3,120	884	5,790	1,240	2,530	2,990	2,260	139	37	808	145	36
25	2,260	827	6,280	1,790	2,650	3,260	1,820	128	36	903	134	34
26	2,450	1,100	6,710	1,850	2,690	3,220	1,550	117	34	1,440	100	33
27	2,300	1,390	7,170	1,940	2,610	3,120	1,700	698	33	1,730	90	31
28	2,160	1,550	9,030	1,820	2,730	2,770	1,610	865	39	2,190	84	33
29	1,850	1,460	10,100	1,420	------	2,330	1,420	941	84	1,790	250	57
30	1,460	1,320	9,180	1,260	------	2,020	2,080	644	175	1,290	276	54
31	1,260	------	8,880	1,220	------	1,850	------	347	------	1,020	211	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,300	52	1,500	1.67	1.92
November	2,650	827	1,370	1.53	1.71
December	19,600	1,100	7,120	7.93	9.14
January	8,180	1,220	2,800	3.12	3.60
February	4,300	1,080	2,700	3.01	3.13
March	3,260	1,420	2,410	2.68	3.09
April	5,020	1,290	2,830	3.15	3.51
May	1,980	117	859	.957	1.10
June	211	33	75	.084	.09
July	2,190	95	957	1.07	1.23
August	903	84	384	.428	.49
September	362	31	151	.168	.19
The year	19,600	31	1,930	2.15	29.20

PEARL RIVER AT JACKSON, MISS.

LOCATION.—Staff gage in T. 5 N., R. 1 E. Choctaw meridian, at State highway bridge at Jackson. Zero of gage is 234.96 feet (revised) above mean sea level.
DRAINAGE AREA.—3,100 square miles.
RECORDS AVAILABLE.—June 1901 to December 1913; August 1928 to September 1933.
DISCHARGE.—Maximum during year, 60,000 second-feet Dec. 19 (gage height, 35.2 feet); minimum, 272 second-feet Sept. 30 (gage height, 1.88 feet).
1901–13, 1928–33: Maximum, that of Dec. 19, 1932; maximum gage height, 37.20 feet Apr. 1, 1902; minimum, 80 second-feet Oct. 26 to Nov. 2, 1904; minimum gage height, 0.20 foot Nov. 4–5, 1911. Average, 14 years (1903–12, 1928–33), 3,770 second-feet.
REMARKS.—Records good. Discharge interpolated Apr. 9.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,040	8,840	3,820	27,000	6,760	8,770	8,210	5,180	1,650	330	3,690	960
2	960	8,700	3,860	26,700	6,360	8,910	7,860	4,640	1,570	360	3,360	1,690
3	849	8,500	3,780	26,700	5,130	8,840	7,410	4,640	1,300	501	2,870	1,490
4	705	8,010	3,570	26,400	4,290	8,700	6,810	4,900	1,150	635	2,380	1,260
5	567	7,260	3,200	25,500	3,690	8,560	6,360	5,260	923	705	1,890	1,190
6	534	6,660	3,040	24,300	3,320	8,560	6,260	5,360	849	735	1,610	1,040
7	501	6,510	3,610	21,900	5,260	9,310	6,410	5,040	812	735	1,570	960
8	635	6,710	4,510	19,800	8,110	9,230	6,860	4,720	740	735	1,490	998
9	670	6,760	5,130	19,300	8,560	8,840	6,940	4,680	670	635	1,450	1,150
10	635	6,910	6,510	17,500	8,910	8,840	7,010	4,900	600	923	1,380	1,110
11	567	7,160	8,380	15,500	9,670	8,700	7,660	5,080	600	3,610	1,330	960
12	501	7,310	12,600	14,200	10,400	8,500	8,010	5,080	534	5,330	1,150	886
13	468	7,460	19,100	12,900	11,000	8,210	8,260	4,720	534	6,610	1,070	886
14	437	7,560	23,800	11,900	11,900	7,960	9,150	3,900	501	7,160	1,110	812
15	468	7,210	26,400	10,800	12,500	7,460	10,600	3,080	468	6,510	1,610	740
16	2,260	6,260	31,400	9,860	12,800	6,760	11,900	2,460	437	5,810	1,690	635
17	4,950	5,080	43,000	8,990	12,800	5,860	13,500	2,010	406	7,330	1,530	600
18	6,160	4,030	57,300	7,960	12,200	5,040	14,700	1,720	390	7,310	1,230	567
19	6,910	3,610	58,600	7,010	10,900	5,180	15,500	1,530	390	6,610	1,070	534
20	7,310	3,490	54,600	6,010	10,900	6,110	15,900	1,380	375	6,110	1,040	534
21	7,360	3,650	47,800	5,130	10,600	6,510	16,400	1,260	360	5,310	960	501
22	7,510	3,650	42,200	4,720	10,400	7,110	16,400	1,110	344	4,640	923	468
23	7,910	3,690	36,400	4,200	10,300	7,460	15,500	998	330	4,380	886	437
24	8,260	3,490	33,500	4,030	9,960	7,760	14,000	960	437	4,030	886	406
25	8,630	3,360	31,400	5,490	9,580	8,060	12,900	849	330	3,900	812	406
26	9,580	3,080	28,500	5,810	9,150	9,150	11,400	812	330	3,950	705	360
27	10,300	2,960	27,400	6,260	8,770	9,580	10,200	1,650	330	3,950	670	344
28	10,500	3,120	27,800	6,810	8,560	9,670	9,150	1,340	344	3,820	705	330
29	10,200	3,450	27,000	6,810	-------	9,310	7,710	1,450	360	3,650	705	300
30	9,400	3,690	27,000	6,810	-------	8,910	6,410	1,720	330	3,690	600	300
31	8,910	-------	27,000	6,760	-------	8,500	-------	1,690	-------	3,730	705	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	10,500	437	4,380	1.41	1.63
November	8,840	2,960	5,610	1.81	2.02
December	58,600	3,040	23,600	7.61	8.77
January	27,000	4,030	13,000	4.19	4.83
February	12,800	3,320	9,030	2.91	3.03
March	9,670	5,040	8,080	2.61	3.01
April	16,400	6,260	10,200	3.29	3.67
May	5,360	812	3,040	.981	1.13
June	1,650	330	613	.198	.22
July	7,360	330	3,670	1.18	1.36
August	3,690	600	1,390	.448	.52
September	1,690	300	762	.246	.27
The year	58,600	300	6,960	2.25	30.46

PEARL RIVER NEAR COLUMBIA, MISS.

LOCATION.—Chain gage at highway bridge 2 miles southwest of Columbia, Marion County.

DRAINAGE AREA.—5,690 square miles.

RECORDS AVAILABLE.—August 1928 to September 1933.

DISCHARGE.—Maximum during year, 49,300 second-feet Dec. 27 (gage height, 23.12 feet); minimum, 1,240 second-feet Oct. 10, 14, Sept. 29–30; minimum gage height, 2.03 feet Oct. 14.

1928–33: Maximum, that of Dec. 27, 1932; minimum, 788 second-feet Oct. 1, 1931 (gage height, 1.36 feet).

REMARKS.—Records good. Discharge interpolated Dec. 29, June 3–4.

Daily discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,610	11,900	4,960	46,700	13,100	17,100	17,300	21,000	3,060	1,690	5,400	2,180
2	1,610	12,300	4,960	45,100	12,800	19,400	23,900	19,600	3,060	2,010	5,260	2,180
3	1,610	12,600	5,110	43,000	12,300	22,400	28,400	16,100	2,940	2,340	5,110	2,180
4	1,770	11,900	5,110	40,400	11,700	20,300	28,900	13,500	2,820	2,180	5,110	2,180
5	1,930	11,400	5,110	38,300	10,700	18,300	26,900	11,900	2,700	2,260	4,680	2,520
6	1,690	10,900	5,110	36,100	9,340	16,300	22,200	13,100	2,600	1,930	4,680	2,520
7	1,540	10,700	4,960	34,700	8,380	17,100	17,300	16,900	2,430	2,010	3,660	2,340
8	1,380	12,400	5,980	32,700	10,900	19,000	15,400	17,100	2,260	2,180	3,440	2,180
9	1,310	13,300	8,700	31,500	15,800	20,300	14,000	14,000	2,180	1,930	2,880	2,180
10	1,240	12,600	9,660	30,900	17,900	20,500	12,800	10,900	2,430	1,930	2,780	2,180
11	1,310	10,700	12,100	30,300	17,700	19,400	12,800	8,860	2,430	2,090	2,700	2,260
12	1,310	9,820	15,600	30,300	16,700	17,500	16,700	8,060	2,180	3,160	2,700	2,180
13	1,310	9,340	17,900	29,800	15,600	15,400	18,500	8,060	2,090	6,620	2,700	2,180
14	1,240	9,180	19,800	28,700	14,600	13,900	23,700	7,900	2,010	9,500	2,960	2,010
15	1,930	9,180	21,200	27,700	14,200	12,800	29,500	7,580	1,930	10,200	3,060	2,010
16	3,880	9,020	23,200	25,900	15,000	12,100	34,100	6,940	1,770	10,700	3,160	1,850
17	7,900	9,020	25,400	23,200	15,600	11,600	34,700	6,140	1,690	11,700	4,010	1,770
18	10,200	9,020	27,200	20,800	16,900	9,820	32,700	5,260	1,690	11,400	4,140	1,690
19	9,340	8,700	29,500	17,700	17,300	10,900	30,600	4,820	1,610	11,600	4,140	1,610
20	8,380	7,580	31,800	15,600	19,000	12,100	31,500	4,140	1,610	11,200	3,660	1,540
21	8,030	7,100	34,100	13,500	19,200	12,300	34,700	3,550	1,540	10,200	2,880	1,460
22	8,060	6,140	35,900	12,100	19,000	12,600	37,200	3,440	1,540	9,660	2,520	1,380
23	8,030	5,840	40,800	11,200	21,000	11,900	37,600	3,250	1,610	10,700	2,340	1,380
24	8,060	5,540	45,100	9,980	22,700	11,400	35,800	3,160	1,610	11,000	2,180	1,380
25	8,380	5,400	48,800	11,400	21,400	11,900	33,400	2,960	1,610	9,500	2,260	1,310
26	9,020	5,260	48,800	16,300	18,300	13,900	28,900	2,880	1,610	8,220	2,180	1,310
27	10,500	4,960	49,300	19,000	16,100	15,200	26,200	3,160	1,690	7,900	2,180	1,310
28	12,100	4,960	48,800	19,000	15,400	15,600	24,700	3,250	1,690	8,060	2,090	1,310
29	12,100	4,820	48,500	17,900	------	15,000	23,400	3,340	1,690	7,580	2,010	1,240
30	11,600	4,680	48,200	16,700	------	14,400	21,700	3,440	1,850	6,780	2,090	1,240
31	11,600	------	47,200	15,200	------	14,000	------	3,250	------	5,980	2,260	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,100	1,240	5,480	0.963	1.11
November	13,300	4,680	8,880	1.56	1.74
December	49,300	4,960	25,200	4.43	5.11
January	46,700	9,980	25,500	4.48	5.16
February	22,700	8,380	15,700	2.76	2.87
March	22,400	9,820	15,300	2.69	3.10
April	37,600	12,800	25,800	4.53	5.05
May	21,000	2,880	8,310	1.46	1.68
June	3,060	1,540	2,060	.362	.40
July	11,700	1,690	6,590	1.16	1.34
August	5,400	2,010	3,270	.575	.66
September	2,520	12,240	1,840	.323	.36
The year	49,300	1,240	12,000	2.11	28.58

STRONG RIVER AT DLO, MISS.

LOCATION.—Staff gage in T. 2 N., R. 4 E. Choctaw meridian, half a mile above Gulf & Ship Island Railroad bridge and three-quarters of a mile southeast of Dlo.

DRAINAGE AREA.—361 square miles.

RECORDS AVAILABLE.—August 1928 to September 1933.

DISCHARGE.—Maximum during year, 6,930 second-feet Dec. 17 (gage height, 18.72 feet); minimum, 16 second-feet Aug. 8, 9 (gage height, 2.25 feet).

1928–33: Maximum, 8,180 second-feet Mar. 15, 1929 (gage height, 21.20 feet); minimum, that of Aug. 8, 9, 1933.

REMARKS.—Records good.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	389	198	2,800	644	2,660	4,780	549	114	53	198	228
2	31	429	174	1,560	644	2,140	3,780	1,040	106	110	150	118
3	31	677	169	1,340	549	1,240	2,020	518	97	159	97	97
4	31	339	159	915	458	612	813	317	84	164	80	131
5	32	178	150	518	400	458	1,040	2,940	61	301	55	114
6	32	1,610	136	488	372	848	2,580	3,220	59	118	30	84
7	30	2,940	677	429	1,560	2,660	2,580	1,880	57	71	21	60
8	30	1,700	1,380	1,140	3,370	2,730	1,340	848	57	57	16	60
9	30	1,340	1,200	3,010	2,800	1,790	710	458	57	50	35	62
10	30	980	2,800	2,980	2,060	1,040	1,340	344	57	1,040	46	53
11	30	848	4,140	2,220	1,560	549	3,100	269	55	3,700	46	46
12	29	366	4,980	1,660	778	518	3,840	233	59	4,340	38	50
13	29	208	5,570	1,240	612	458	3,560	178	80	3,560	77	46
14	29	140	6,020	1,140	549	389	4,340	169	60	3,070	188	46
15	67	178	5,660	1,040	549	355	5,440	159	57	644	429	46
16	1,790	188	5,570	429	644	301	4,780	140	57	744	389	45
17	1,920	140	6,680	328	644	285	3,840	208	55	2,020	355	43
18	1,240	159	5,840	312	915	248	2,900	208	50	1,740	344	42
19	744	488	4,380	306	848	744	1,380	159	46	778	90	39
20	290	429	3,780	285	1,340	2,100	1,100	114	46	333	64	39
21	64	429	2,260	280	1,380	1,740	2,420	97	46	400	60	38
22	53	280	915	306	980	1,380	1,480	84	46	488	40	38
23	32	208	1,100	518	644	915	813	97	46	980	32	35
24	62	178	2,260	488	518	429	488	97	46	518	48	32
25	60	174	3,220	3,100	458	1,100	429	106	43	813	71	33
26	218	228	2,940	4,580	400	2,020	355	97	45	915	64	35
27	361	372	3,780	4,060	389	1,660	1,040	188	140	1,040	59	32
28	366	488	6,060	3,430	1,100	1,380	1,200	169	97	778	48	32
29	400	458	6,200	2,100	-------	848	612	131	118	372	46	32
30	169	264	5,030	980	-------	389	429	123	84	178	53	32
31	150	-------	4,220	518	-------	3,330	-------	123	-------	64	228	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,920	29	271	0.751	0.87
November	2,940	140	560	1.55	1.73
December	6,680	136	3,150	8.73	10.06
January	4,580	280	1,440	3.99	4.60
February	3,370	372	970	2.69	2.80
March	3,330	248	1,200	3.32	3.83
April	5,440	355	2,150	5.96	6.65
May	3,220	84	492	1.36	1.57
June	140	43	68	.188	.21
July	4,340	50	956	2.65	3.06
August	429	16	113	.313	.36
September	228	32	60	.166	.19
The year	6,680	16	955	2.65	35.63

MISCELLANEOUS DISCHARGE MEASUREMENTS

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow were made at a number of other points, as shown by the following table:

Miscellaneous discharge measurements in south Atlantic slope and eastern Gulf of Mexico basins during the year ending Sept. 30, 1933

Date	Stream	Tributary to—	Locality	Discharge
				Sec.-ft.
Oct. 28	Toisnot Swamp	Contentnea Creek	Near Wilson, N.C., on State Highway 91	16.2
28	do	do	Near Wilson, N.C., on State Highway 40	24.2
28	do	do	Near Stantonsburg, N.C., on Stantonsburg-Saratoga road.	11.3
28	Contentnea Creek	Neuse River	150 feet below bridge at Stantonsburg, N.C.	113
2	Leonard Creek	Yadkin River	Near Lexington, N.C., on State Highway 10.	1.79
4	do	do	do	1.90
2	Abbotts Creek	do	Near Thomasville, N.C. (just above intake for Thomasville water works).	7.83
4	do	do	do	7.71
Feb. 2	Cane Savannah Creek.	Black River	At highway bridge 2 miles south of Cane Savannah, S.C.	54.5
Jan. 11	North Cove Creek	Catawba River	About 4 miles above Ashford N.C., opposite small bridge on highway.	7.83
Feb. 3	do	do	do	7.52
Apr. 5	do	do	do	5.23
July 25	do	do	do	2.61
Aug. 20	Colonels Creek	Santee River	Highway bridge at Cooks Mountain, near Eastover, S.C.	42.2
Apr. 7	Pacolet River	Broad River	Highway bridge 1 mile above Converse, S.C.	577
8	do	do	do	496
7	South Pacolet River	do	Just below Spartanburg water works, near Chesne, S.C.	68.9
Dec. 9	Saluda River	Santee River	Abandoned highway bridge half a mile below Lake Murray power plant, near Columbia, S.C.	4,890
22	do	do	do	3,900
Mar. 9	do	do	do	2,410
9	do	do	do	2,430
Sept. 14	St. Johns River	Atlantic Ocean	Bridge on State Highway 22 near Christmas, Fla.	2,680
Oct. 6	do	do	Atlantic Coast Line R.R. bridge near Sanford, Fla.	619
Nov. 22	do	do	do	1,670
Dec. 5	do	do	do	1,620
Jan. 11	do	do	do	1,310
Oct. 7	do	do	800 feet below Crows Bluff Bridge, near DeLand, Fla.	1,400
Nov. 21	do	do	do	2,490
Dec. 5	do	do	do	2,230
Jan. 11	do	do	do	1,760
24	do	do	2,000 feet above Crows Bluff Bridge, near DeLand, Fla.	2,120
Feb. 8	do	do	do	2,560
23	do	do	Crows Bluff Bridge, near DeLand, Fla.	1,380
23	do	do	2,000 feet above Crows Bluff Bridge, near DeLand, Fla.	1,640
Mar. 1	do	do	do	868
1	do	do	Crows Bluff Bridge, near DeLand, Fla.	716
2	do	do	2,000 feet above Crows Bluff Bridge, near DeLand, Fla.	1,180
3	do	do	do	1,130
3	do	do	do	1,140
13	do	do	1,500 feet below Crows Bluff Bridge, near DeLand, Fla.	1,980
13	do	do	Crows Bluff Bridge, near DeLand, Fla.	1,480
13	do	do	200 feet above Crows Bluff Bridge, near DeLand, Fla.	1,810
13	do	do	2,000 feet above Crows Bluff Bridge, near DeLand, Fla.	1,440
21	do	do	do	1,410
21	do	do	Crows Bluff Bridge, near DeLand, Fla.	1,010
21	do	do	100 feet above Crows Bluff Bridge, near DeLand, Fla.	1,160
21	do	do	2,000 feet above Crows Bluff Bridge, near DeLand, Fla.	1,980

Miscellaneous discharge measurements in south Atlantic slope and eastern Gulf of Mexico basins during the year ending Sept. 30, 1933—Continued

Date	Stream	Tributary to—	Locality	Discharge
				Sec.-ft.
July 25	St. Johns River	Atlantic Ocean	100 feet above Crows Bluff Bridge, near DeLand, Fla.	2,930
25	do	do	Crows Bluff Bridge, near DeLand Fla.	2,790
25	do	do	do	2,340
25	do	do	2,000 feet above Crows Bluff Bridge, near DeLand, Fla.	2,910
Sept. 15	do	do	Crows Bluff Bridge, near DeLand, Fla.	8,750
18	do	do	do	8,520
25	do	do	do	7,740
Feb. 10	Wekiva Spring	Wekiva River	Near Apopka, Fla.	66.9
10	Rock Spring	do	do	54.2
10	Seminole Spring	St. Johns River	Near Sorrento, Fla.	35.8
7	Alexander Spring	do	Near Astor, Fla.	124
7	Silver Glen Spring	Lake George	do	89.9
7	Juniper Spring Creek.	do	do	106
7	Salt Spring	do	Lake Kerr, Fla.	61.8
Nov. 14	Oklawaha River	St. Johns River	100 feet above mouth of Silver River, near Connor, Fla.	150
Feb. 17	Helena Run	Lake Harris	Bridge on State Highway 2A, near Okahumpka, Fla.	17.2
Nov. 14	Silver Spring River	Oklawaha River	Mouth of river near Connor, Fla.	536
Aug. 11	Istokpoga Canal	Kissimmee River	Bridge on State Highway 59 near Cornwell, Fla.	489
Sept. 13	do	do	do	1,620
Oct. 5	Peace Creek	Gulf of Mexico	Old bridge on State Highway 2 near Zolfo Springs, Fla.	188
May 3	do	do	New bridge on State Highway 2 near Zolfo Springs, Fla.	79.0
June 7	do	do	Old bridge on State Highway 2 near Zolfo Springs, Fla.	122
July 10	do	do	do	2,180
11	do	do	New bridge on State Highway 2 near Zolfo Springs, Fla.	1,680
14	do	do	Old bridge on State Highway 2 near Zolfo Springs, Fla.	1,440
15	do	do	New bridge on State Highway 2 near Zolfo Springs, Fla.	1,480
Aug. 3	do	do	do	786
25	do	do	do	1,300
Sept. 7	do	do	Old bridge on State Highway 2 near Zolfo Springs, Fla.	22,500
10	do	do	do	12,400
11	do	do	do	11,100
12	do	do	do	9,890
13	do	do	do	8,250
14	do	do	do	7,590
20	do	do	do	3,160
22	do	do	do	2,530
Nov. 16	Little Manatee River.	do	Bridge on State Highway 5 at Willow, Fla.	42.2
Sept. 9	Alafia River	do	Bridge on State Highway 5 at Riverview, Fla.	8,060
Oct. 4	Hillsboro River	do	Morris Bridge, near Thonotosassa, Fla.	122
Nov. 16	do	do	do	126
Dec. 8	do	do	do	95.9
Jan. 4	do	do	do	87.2
Feb. 15	do	do	do	139
Mar. 8	do	do	do	109
Mar. 8	do	do	do	93.0
Apr. 5	do	do	do	130
Dec. 8	do	do	Kennedy Bridge, near Harney, Fla.	101
Jan. 4	do	do	do	75.9
Feb. 15	do	do	do	215
Mar. 8	do	do	do	109
Apr. 5	do	do	do	154
May 4	do	do	do	198
June 6	do	do	do	74.0
30	do	do	do	362
July 7	do	do	do	505
13	do	do	do	1,760
15	do	do	do	4,280
16	do	do	do	5,310
19	do	do	do	5,090
Aug. 2	do	do	do	1,530

Miscellaneous discharge measurements in south Atlantic slope and eastern Gulf of Mexico basins during the year ending Sept. 20, 1933—Continued

Date	Stream	Tributary to—	Locality	Discharge
				Sec.-ft.
Sept. 9	Hillsboro River	Gulf of Mexico	40th Street Bridge, near Harney, Fla.	16,500
12	do	do	Temple Terrace Bridge, near Harney, Fla.	11,400
13	do	do	do	10,700
16	do	do	do	7,680
19	do	do	40th Street Bridge, near Harney, Fla.	5,760
23	do	do	Kennedy Bridge site, near Harney, Fla.	3,670
27	do	do	do	1,800
Jan. 6	Crystal Spring	Hillsboro River	Crystal Springs, Fla.	57.4
Feb. 17	do	do	do	53.0
14	Chassahowitzka Spring.	Gulf of Mexico	7 miles south of Homosassa, Fla.	66.6
14	Homosassa Spring	do	1 mile north of Homosassa, Fla.	141
May 9	Crystal River	do	4 miles below source near Crystal River, Fla.	3,730
Feb. 14	Hunter Spring	Crystal River	Crystal River, Fla.	87.0
Sept. 26	Withlacoochee River.	Gulf of Mexico	Bridge on State Highway 5 at Dunnellon, Fla.	6,310
29	do	do	do	6,040
Feb. 17	Belton Mill Creek	Withlacoochee River.	2 miles upstream from bridge on State Highway 5 near Coleman, Fla.	8.58
Oct. 10	Suwannee River	Gulf of Mexico	Fort Fannin, near Wilcox, Fla.	14,400
Nov. 15	do	do	do	10,600
Dec. 16	do	do	do	9,800
Feb. 20	do	do	do	20,500
28	do	do	do	22,800
Mar. 9	do	do	do	25,100
Feb. 10	Falmouth Spring	Suwannee River	Falmouth, Fla.	365
Dec. 14	Blue Springs	Chipola River	Bridge 100 feet above power plant near Marianna, Fla.	152

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