UNITED STATES DEPARTMENT OF THE INTERIOR

SURFACE WATER SUPPLY *of the* UNITED STATES 1930

PART 3

OHIO RIVER BASIN

Prepared in cooperation with the States of
NEW YORK, WEST VIRGINIA, OHIO, NORTH CAROLINA, VIRGINIA
KENTUCKY, INDIANA, ILLINOIS, AND TENNESSEE

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 698

UNITED STATES DEPARTMENT OF THE INTERIOR
RAY LYMAN WILBUR, Secretary
GEOLOGICAL SURVEY
W. C. MENDENHALL, Director

Water-Supply Paper 698

SURFACE WATER SUPPLY of the UNITED STATES 1930

PART 3
OHIO RIVER BASIN

NATHAN C. GROVER, Chief Hydraulic Engineer
A. W. HARRINGTON, WILLIAM KESSLER, LASLEY LEE, E. D. BURCHARD,
J. J. DIRZULAITIS, H. E. GROSBACH, J. H. MORGAN, and W. R. KING, District Engineers

Prepared in cooperation with the States of
NEW YORK, WEST VIRGINIA, OHIO, NORTH CAROLINA
VIRGINIA, KENTUCKY, INDIANA, ILLINOIS
AND TENNESSEE

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1932

For sale by the Superintendent of Documents, Washington, D. C. - - - - - - - Price

CONTENTS

ILLUSTRATION

SURFACE WATER SUPPLY OF OHIO RIVER BASIN, 1930

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, 1930.

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, 1895–1931

1895	$12,500.00	1908–1910	$100,000.00	1926	$165,000.00
1896	24,500.00	1911–1917	150,000.00	1927	151,000.00
1897–1899	50,000.00	1918	175,000.00	1928	147,000.00
1900	70,000.00	1919	148,244.10	1929	270,500.00
1901–1902	100,000.00	1920	175,000.00	1930	275,000.00
1903–1906	200,000.00	1921–1923	180,000.00	1931	565,000.00
1907	150,000.00	1924–25	170,000.00		

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 9.

Measurements of stream flow have been made at about 6,070 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July, 1930, 2,430 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, 1929, and ending September 30, 1930. At the beginning of January in most parts of the United States much of the precipitation in the preceding three months is stored in the form of snow or ice, or in ponds, lakes, and swamps, or as underground water, and this stored water passes off in the streams during the spring break-up. At the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore the run-off for the year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on 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 out-

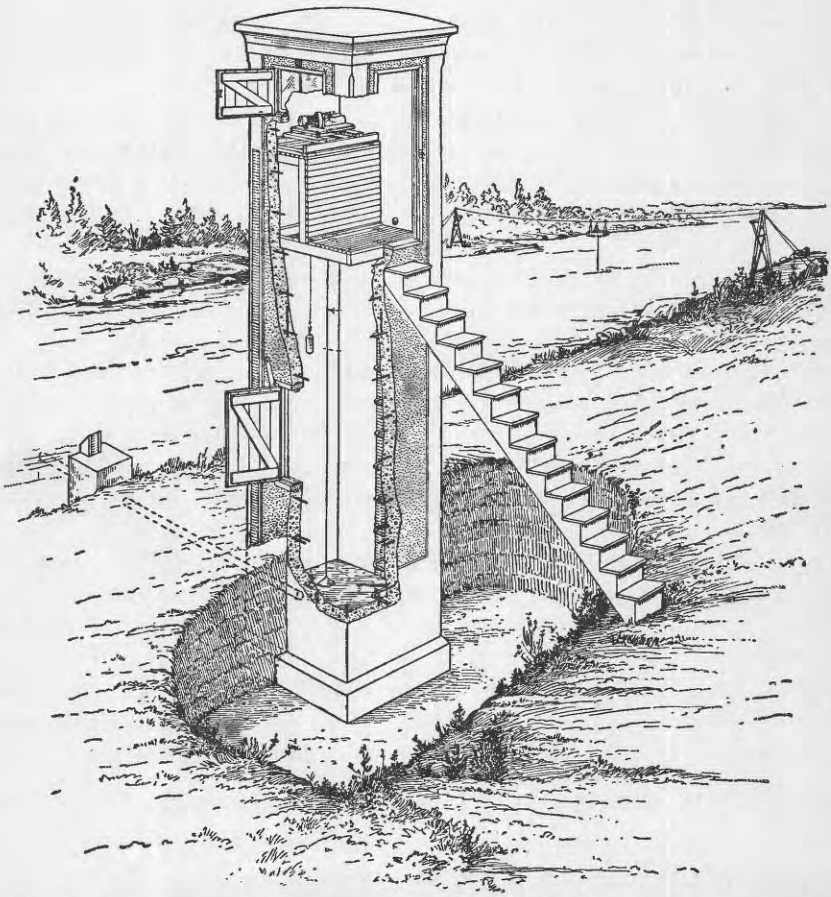

FIGURE 1.—Typical river-measurement station showing concrete well and house for water-stage recorder and staff gages, cable and car

lined in standard textbooks on the measurement of river discharge. A typical gaging station, equipped with water-stage recorder and measuring cable and car, is shown in Figure 1.

From the discharge measurements rating tables are prepared that give the discharge for any stage. The application of the daily gage heights to these rating tables gives the 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, in addition to statements regarding location and type of gage, information as to diversions that decrease the flow at the gage, artificial regulation, maximum and minimum recorded stages, and the accuracy of the records. The maximum discharge given under "Extremes" does not represent the crest discharge unless a water-stage recorder was in operation or a nonrecording gage was read at the time of the crest.

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 at regular intervals during 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 permanence 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 records are accurate within 5 per cent; "good," within 10 per cent; "fair," within 15 per cent; and "poor," within 20 per cent 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

Investigations of water resources by the United States Geological Survey has consisted in large part of measurements of the volume of flow of streams and studies of the conditions affecting that flow, but it has comprised also investigation of such closely allied subjects as irrigation, water storage, water powers, ground 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 monographs, bulletins, professional papers, 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 the Mississippi).
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 drainage basins, in three parts:
    A, Pacific slope basins in Washington and upper Columbia River Basin.
    B, Snake River Basin.
    C, Pacific slope basins in Oregon and lower Columbia River Basin.

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

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

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

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

Augusta, Me., Statehouse.
Boston, Mass., 2500 Customhouse.
Hartford, Conn., 318 State Office Building.
Albany, N. Y., 506 Broadway—Arcade Building.
Trenton, N. J., 710 Trenton Trust Building.
Harrisburg, Pa., Claster Building.
Charlottesville, Va., Brooks Museum, 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.
Tuscaloosa, Ala., Post Office Building.
Chattanooga, Tenn., 630 Power Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Indianapolis, Ind., 319 Federal Building.
Chicago, Ill., 1503 Consumers Building.
Madison, Wis., 337N State Capital.
St. Paul, Minn., 202 Old State Capitol.
Topeka, Kans., 23 Federal Building.
Rolla, Mo., Rolla Building, School of Mines and Metallurgy.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Capitol.
Santa Fe, N. Mex., State Capitol.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo., 403 Post Office Building.
Salt Lake City, Utah, 313 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, Federal Building.
Helena, Mont., 416 Power Block.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.
Los Angeles, Calif., 751 South Figueroa Street, room 510.
Honolulu, Hawaii, Territorial Office Building.

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

Stream-flow records have been obtained at about 6,070 points in the United States, and the data obtained have been published in the reports tabulated below.

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 and 1894.
16th A, pt. 2	Descriptive information only	
B 140	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11	Gage heights (also gage heights for earlier years)	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895 and 1896.
W 15	Descriptions, measurements, and gage heights, eastern United State, eastern Mississippi River, and Missouri River above junction with Kansas River.	1897.
W 16	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27	Measurements, ratings, and gage heights, Eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28	Measurements, ratings, and gage heights, Arkansas River and Western United States.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years)	1898.
W 35 to 39	Descriptions, measurements, gage heights, and ratings	1899.
21st A, pt. 4	Monthly discharge	1899.
W 47 to 52	Descriptions, measurements, gage heights, and ratings	1900.
22d A, pt. 4	Monthly discharge	1900.
W 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
W 75	Monthly discharge	1901.
W 82 to 85	Complete data	1902.
W 97 to 100	do	1903.
W 124 to 135	do	1904.
W 165 to 178	do	1905.
W 201 to 214	do	1906.
W 241 to 252	do	1907–8
W 261 to 272	do	1909.
W 281 to 292	do	1910.
W 301 to 312	do	1911.
W 321 to 332	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919–20.
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 601 to 614	do	1925.
W 621 to 634	do	1926.
W 641 to 654	do	1927.
W 661 to 674	do	1928.
W 681 to 694	do	1929.
W 696 to 709	do	1930.

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 1930. The data for any particular station will, as a rule, be found in the reports covering the years during which the station was maintained.

Numbers of water-supply papers containing results of stream measurements, 1899–1930

[For basins included see p. 5]

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, [f] 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	[m] 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

[a] Rating tables and index to Water-Supply Papers 35–39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in Twenty-first Annual Report, Part 4.
[b] James River only.
[c] Gallatin River.
[d] Green and Gunnison Rivers and Colorado River above junction with Gunnison.
[e] Mohave 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. Tables of monthly discharge for 1900 in Twenty-second Annual Report, Part 4.
[h] Wissahickon and Schuylkill Rivers to James River.
[i] Scioto River.
[k] Tributaries of Mississippi 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] Great Basin in California, except Truckee and Carson River Basins.
[s] Below junction with Gila.
[t] Rogue, Umpqua, and Siletz Rivers only.

For example, data for 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.

COOPERATION

The work in the several States was done under cooperative agreements as follows: In New York with the State department of public works, Frederick Stuart Greene, superintendent; in West Virginia with the State geological survey, James D. Sisler, State geologist, and Public Service Commission, I. Wade Coffman, chairman; in Ohio with the Ohio Cooperative Topographic Survey, C. E. Sherman, inspector; in North Carolina with the North Carolina Department of Conservation and Development, J. W. Harrelson, director; in Virginia with the Conservation and Development Commission, W. E. Carson, chairman; in Kentucky (after July 1, 1930) with the Kentucky Geological Survey, Dr. W. R. Jillson, State geologist; in Indiana (after July 1, 1930) with the Indiana Department of Conservation, Denzil Doggett, assistant State engineer; in Illinois with the department of purchases and construction, division of waterways, Wm. F. Mulvihill, supervisor; in Tennessee with the Tennessee Geological Survey, Walter F. Pond, State geologist.

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 cities, corporations, and individuals: In West Virginia by the Clarksburg Water Board, West Virginia Power Co., and Gauley Power Co.; in Virginia by the Appalachian Electric Power Co. and H. A. Bowen; in Kentucky by the Kentucky Utilities Co., Cumberland Hydroelectric Co., and L. E. Bryant; in North Carolina by the Carolina Power & Light Co., Knoxville Power Co., Appalachian Electric Power Co., Sylva Paperboard Co., Champion Fiber Co., and cities of Ashville and Highlands; in Tenessee by the Tennesee Electric Power Co., Holston River Power Co., and Mississippi Power Co.

DIVISION OF WORK

The data for the station in New York were collected and prepared for publication under the dirction of Arthur W. Harrington, district engineer, assisted by J. L. Lamson, H. F. Hill, jr., F. C. Christopherson, J. V. B. Wells, W. B. Hanlon, Kyle Forrest, Miss A. D. Buchanan, and Miss E. L. Connors.

The data for stations in West Virginia and on Levisa Fork at Paintsville, Ky., were collected and prepared for publication under the direction of Wm. Kessler, district engineer, assisted by M. T. Thomson.

The data for stations in Ohio were collected and prepared for publication under the direction of Lasley Lee, district engineer, who also collected the records for Miami River Basin in Indiana, and Licking and Kentucky River Basins in Kentucky, assisted by J. I. Perrey, C. V. Youngquist, L. Engstrom, E. P. Coady, E. G. Barron, C. L. Muntz, H. E. Cox, J. P. Bonner, and H. P. Brooks.

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

The data for stations in Virginia were collected and prepared for publication under the direction of J. J. Dirzulaitis, district engineer, assisted by O. D. Mussey, R. W. Sundstrom, A. R. Green, T. F. Hanly, F. F. Schrader, H. C. Eagle, A. D. Ash, and Miss S. F. Norris.

The data for stations in Wabash River Basin in Indiana and in Green and Tradewater River Basins in Kentucky were collected and prepared for publication under the direction of H. E. Grosbach, district engineer, who also prepared for publication the data for stations in Miami River Basin in Indiana, and in Licking and Kentucky River Basins in Kentucky, assisted by R. E. Hutchins, F. L. LeMert, W. D. Mitchell, W. P. Cross, L. C. Crawford, E. F. Rutkowski, and Mrs. Charlotte Perrin.

The data for stations in Illinois were collected by H. E. Grosbach, district engineer, assisted by F. L. LeMert, E. F. Rutkowski, and L. C. Crawford. They were prepared for publication under the direction of J. H. Morgan, district engineer, assisted by C. L. Muntz and L. C. Crawford.

The data for stations in the Cumberland and Tennessee River Basins in Kentucky, Tennessee, Georgia, and Alabama were collected and prepared for publication under the direction of W. R. King, district engineer, assisted by Warren Withee, D. S. Wallace, Duncan Charlton, C. E. Knox, M. R. Williams, W. R. Eaton, Murray McGovern, S. C. Moore, W. J. Perry, F. W. Wagener, H. M. Erskine, R. P. Mangold, and Miss Gladys Boulton.

The records were reviewed and the manuscript assembled by F. F. LeFever.

GAGING-STATION RECORDS

ALLEGHENY RIVER BASIN

ALLEGHENY RIVER AT RED HOUSE, N. Y.

LOCATION.—Water-stage recorder at highway bridge in Red House, Cattaraugus County.

DRAINAGE AREA.—1,640 square miles.

RECORDS AVAILABLE.—September, 1903, to September, 1930.

EXTREMES.—Maximum discharge during year, 19,500 second-feet Feb. 26 (gage height, 9.6 feet); minimum, 95 second-feet Aug. 15, Sept. 11–14 (gage height, 2.80 feet).

1903–1930: Maximum discharge, 41,000 second-feet Mar. 2, 1910 (gage height, 13.6 feet); minimum, that of Aug. 15, Sept. 11–14, 1930.

REMARKS.—Records good except those for periods of ice effect, Dec. 1–3, 9, 22–26, Jan. 20 to Feb. 1, Feb. 7–18, Mar. 3–7, and those estimated, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	242	915	1,600	2,080	1,200	8,680	3,320	2,010	1,260	589	156	131
2	344	1,040	2,200	4,280	1,190	7,360	5,890	2,030	1,110	538	151	146
3	5,050	1,260	2,200	8,680	1,180	5,500	6,010	2,180	980	517	146	140
4	6,280	1,310	2,060	7,540	1,170	4,400	5,180	2,010	863	498	140	131
5	4,750	1,340	1,870	5,460	1,140	3,600	4,530	1,750	778	470	136	122
6	3,030	1,400	1,680	4,660	1,030	3,400	4,030	1,660	730	451	131	122
7	1,990	1,310	1,540	4,660	950	3,400	3,910	1,590	838	442	131	122
8	1,560	1,180	3,930	9,920	900	4,790	4,280	2,370	790	451	122	113
9	1,280	1,100	5,000	14,800	850	5,460	3,910	1,940	708	423	122	104
10	1,070	1,020	3,910	16,000	800	4,790	4,160	1,630	998	380	118	100
11	928	980	3,210	12,000	750	6,170	4,660	1,420	2,270	356	108	95
12	814	967	2,670	11,200	900	9,020	4,530	1,250	1,780	338	104	95
13	778	928	2,910	14,400	900	7,360	4,530	1,240	1,190	338	100	95
14	766	1,020	8,010	15,600	850	7,200	4,400	1,210	954	364	100	95
15	766	1,650	8,170	15,600	800	5,730	3,910	1,460	814	442	95	100
16	708	2,270	6,010	13,200	750	4,920	3,880	1,710	708	389	100	113
17	631	2,780	5,840	9,380	700	5,190	5,530	1,710	719	346	104	113
18	599	4,860	12,100	7,040	700	8,570	6,300	[a] 1,480	1,080	315	108	131
19	599	7,040	10,800	4,920	915	9,380	7,610	[a] 1,560	1,780	285	108	136
20	548	6,440	9,020	4,000	2,830	7,680	7,360	[a] 4,750	1,590	262	108	126
21	517	5,590	7,040	3,200	5,590	6,740	6,740	5,880	1,400	249	104	108
22	517	4,530	[a] 6,000	2,600	5,050	5,320	6,440	4,160	1,120	242	104	104
23	888	3,440	[a] 5,500	2,200	4,530	4,280	5,320	3,210	915	242	108	104
24	1,760	3,100	4,400	1,900	4,280	3,790	4,400	2,570	826	228	113	100
25	1,500	2,670	3,800	1,700	10,300	3,440	3,910	2,470	778	215	122	108
26	1,430	2,370	3,200	1,600	19,000	5,100	3,550	2,040	697	202	126	142
27	1,320	2,270	2,780	1,500	14,800	4,790	3,210	1,710	814	190	126	184
28	1,180	2,570	2,670	1,500	10,800	3,910	2,780	1,560	928	184	122	173
29	1,030	2,180	2,570	1,400	-------	3,550	2,470	1,800	814	173	122	156
30	941	1,530	2,270	1,400	-------	3,550	2,180	1,640	642	168	122	151
31	889	-------	2,080	1,300	-------	3,320	-------	1,430	-------	162	126	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,280	242	1,440	0.878	1.01
November	7,040	915	2,370	1.45	1.62
December	12,100	1,540	4,420	2.70	3.11
January	16,000	1,300	6,640	4.05	4.67
February	19,000	700	3,390	2.07	2.16
March	9,380	3,320	5,500	3.35	3.86
April	7,610	2,180	4,630	2.82	3.15
May	5,880	1,210	2,110	1.29	1.49
June	2,270	642	1,030	.628	.70
July	589	162	337	.205	.24
August	156	95	119	.073	.08
September	184	95	122	.074	.08
The year	19,000	95	2,680	1.63	22.17

[a] Estimated.

MONONGAHELA RIVER BASIN

TYGART RIVER NEAR DAILEY, W. VA.

LOCATION.—Chain gage until Sept. 11, 1930, and staff gage thereafter (same datum) at Burnt Bridge, 1,000 feet above Stalnaker Run and 1 mile northeast of Dailey, Randolph County.

DRAINAGE AREA.—194 square miles.

RECORDS AVAILABLE.—April, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,760 second-feet Oct. 3 (gage height, 11.2 feet); no flow Sept. 12–30.

1915–1930: Maximum discharge, 9,150 second-feet Mar. 13, 1918 (gage height, 15.9 feet); no flow Sept. 12–30, 1930.

REMARKS.—Records good. All natural pools drained by trenching through riffles between Elkins and Dailey and above Dailey during September to augment water supply of Elkins.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	159	275	365	245	275	178	91	24	10	1.5	0.7
2	2,000	153	305	395	183	260	380	84	22	9.4	1.3	1.0
3	5,200	1,880	260	448	138	176	650	81	19	8.8	1.1	1.0
4	1,250	1,400	166	395	190	183	690	71	15	7.6	.9	.7
5	690	650	166	335	1,640	134	535	63	14	7.0	.9	.6
6	380	365	230	290	820	260	412	87	14	6.5	1.0	.5
7	245	260	448	275	482	482	820	89	14	6.0	1.0	.4
8	183	190	775	245	380	1,880	955	81	15	6.0	.7	.4
9	128	159	650	260	275	1,050	955	65	19	5.5	.6	.2
10	105	136	430	245	290	610	820	60	610	6.0	.4	.2
11	82	134	335	215	230	500	650	57	482	5.8	.4	.1
12	70	148	570	202	215	500	448	64	202	5.0	.4	0
13	64	134	690	190	535	500	350	65	118	4.5	.2	0
14	57	168	570	116	1,050	570	275	65	81	6.8	.3	0
15	52	230	482	151	535	448	215	84	61	18	.2	0
16	45	275	380	134	365	365	190	94	45	15	.2	0
17	54	305	305	122	350	290	178	79	41	12	.2	0
18	60	3,860	290	113	260	448	153	77	39	8.8	.3	0
19	47	3,090	412	126	260	1,150	151	74	32	7.0	.2	0
20	41	1,520	730	395	275	730	138	96	24	5.5	.1	0
21	37	448	500	230	290	482	124	84	22	4.1	.3	0
22	43	335	365	157	290	350	157	65	19	4.3	.2	0
23	650	275	275	109	305	275	132	58	17	9.1	.2	0
24	245	215	215	101	500	230	128	54	16	6.2	.2	0
25	215	171	190	98	500	202	113	50	22	4.3	.2	0
26	183	151	162	96	482	202	98	41	23	5.2	.2	0
27	138	190	153	94	412	173	94	35	19	4.1	.2	0
28	118	365	190	144	320	162	87	34	16	3.5	.1	0
29	113	570	690	260	-------	183	84	31	15	2.7	.6	0
30	116	350	500	245	-------	215	81	30	12	2.0	.7	0
31	116	-------	412	275	-------	202	-------	27	-------	1.5	.7	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,200	12	411	2.12	2.44
November	3,860	134	610	3.14	3.50
December	775	153	391	2.02	2.33
January	448	94	220	1.13	1.30
February	1,640	138	422	2.18	2.27
March	1,880	134	435	2.24	2.58
April	955	81	341	1.76	1.96
May	96	27	65.7	.339	.39
June	610	12	69.1	.356	.40
July	18	1.5	6.72	.035	.04
August	1.5	.1	.50	.0026	.003
September	1.0	0	.19	.00098	.001
The year	5,200	0	246	1.27	17.21

TYGART RIVER AT BELINGTON, W. VA.

LOCATION.—Chain gage on highway bridge at Belington, Barbour County, one-fourth mile above Mill Creek. Zero of gage 1,679.89 feet above mean sea level.

DRAINAGE AREA.—390 square miles.

RECORDS AVAILABLE.—June, 1907, to September, 1930.

EXTREMES.—Maximum discharge during year, 11,600 second-feet Oct. 3 (gage height, 15.05 feet); minimum, 0.1 second-foot Sept. 13, 16.

1907–1930: Maximum discharge, 20,100 second-feet Mar. 13, 1917 (gage height, 21.48 feet); minimum, that of Sept. 13, 16, 1930 (gage height, 1.56 feet).

REMARKS.—Records good. Some water diverted from the Cheat River Basin into Tygart River at Elkins for municipal supply Sept. 21–30.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	655	500	875	405	765	475	360	62	23	7.3	1.5
2	2,970	550	550	820	500	682	682	340	52	36	5.3	1.1
3	11,400	1,290	575	1,050	450	600	1,290	288	44	38	5.0	1.2
4	7,110	5,280	428	1,170	525	500	1,410	252	38	27	4.1	1.1
5	2,540	1,900	405	930	3,420	360	1,410	214	34	18	2.9	.9
6	1,540	1,050	525	765	2,460	655	1,050	231	29	15	2.3	.6
7	710	738	820	655	1,350	2,300	1,410	252	27	13	2.5	.6
8	475	525	1,350	550	1,050	2,540	2,540	234	27	12	1.9	.7
9	340	405	1,540	550	765	2,380	2,380	210	26	11	1.5	.5
10	248	340	1,110	550	765	710	2,060	174	100	8.9	1.5	.5
11	201	308	820	500	655	1,470	1,410	153	1,610	7.3	1.2	.5
12	168	312	820	475	600	738	1,050	148	682	5.9	1.0	.4
13	148	296	1,610	450	820	765	765	273	312	6.5	.8	.1
14	132	308	1,750	428	2,300	1,170	600	207	242	8.1	1.3	.2
15	118	600	1,610	382	1,680	1,050	500	204	186	12	2.5	.2
16	102	1,110	1,230	360	1,050	875	405	238	109	22	3.3	.1
17	116	930	875	312	765	710	405	320	100	24	3.3	.2
18	114	6,990	710	288	710	655	360	280	92	18	2.5	.2
19	111	7,110	875	382	710	2,620	405	259	76	16	2.3	.2
20	90	2,300	1,610	288	710	2,220	320	273	60	13	2.9	.3
21	79	1,230	1,110	300	710	1,410	312	245	51	11	2.9	.6
22	82	820	738	300	710	1,290	300	217	42	15	2.9	.9
23	500	655	655	300	655	1,110	312	177	37	74	2.9	.9
24	655	550	525	231	710	765	280	159	30	84	1.9	.9
25	450	450	360	280	1,050	550	273	162	174	42	1.7	.8
26	428	382	450	266	990	500	245	125	118	26	1.5	.8
27	360	382	428	273	1,410	450	228	118	62	17	2.1	.9
28	320	820	820	428	930	405	198	82	45	14	1.7	.9
29	308	1,290	1,820	710	-------	405	177	80	36	12	1.7	.9
30	340	990	1,410	765	-------	500	360	77	26	9.3	1.3	.8
31	475	-------	1,050	550	-------	500	-------	68	-------	11	1.5	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,400	29	1,050	2.69	3.10
November	7,110	296	1,350	3.46	3.86
December	1,820	360	938	2.41	2.78
January	1,170	231	522	1.34	1.54
February	3,420	405	1,030	2.64	2.75
March	2,620	360	1,020	2.62	3.02
April	2,540	177	787	2.02	2.25
May	360	68	207	.531	.61
June	1,610	26	151	.387	.43
July	84	5.9	21.0	.054	.06
August	7.3	.8	2.50	.0064	.007
September	1.5	.1	.65	.0017	.002
The year	11,400	.1	587	1.51	20.41

TYGART RIVER AT FETTERMAN, W. VA.

LOCATION.—Chain gage on highway bridge at Fetterman, Taylor County, three-fourths mile above Otter Creek. Zero of gage 957.86 feet above mean sea level.

DRAINAGE AREA.—1,340 square miles.

RECORDS AVAILABLE.—June, 1907, to September, 1930.

EXTREMES.—Maximum discharge during year, 38,800 second-feet Oct. 3 (gage height, 21.68 feet); minimum, 1.4 second-feet Sept. 12 (gage height, 2.30 feet).

1907–1930: Maximum discharge, about 57,600 second-feet July 25, 1912 (gage height, 29.1 feet); minimum, that of Sept. 12, 1930.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928–1930

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	237	541	18,900	1,640	1,290	8,450	1,570	3,110	4,880	1,220	243	103
2	329	481	16,200	2,930	1,100	6,290	1,430	2,580	4,340	844	250	92
3	418	433	6,290	3,640	866	5,050	1,290	3,810	2,580	614	203	82
4	329	418	3,280	2,930	800	4,880	1,160	8,450	1,800	523	225	78
5	301	457	2,400	2,310	778	7,540	2,580	6,650	1,430	457	214	65
6	225	595	2,050	2,050	789	17,700	4,170	5,760	1,100	350	294	59
7	262	723	1,720	2,050	1,430	19,800	3,460	7,900	866	473	343	53
8	225	642	1,430	1,880	3,110	12,900	2,490	6,650	800	690	250	92
9	225	652	1,290	1,500	3,460	6,650	2,140	4,880	767	778	193	137
10	243	756	994	1,720	3,460	3,810	2,310	3,460	671	614	148	127
11	214	994	811	5,940	3,110	2,580	3,640	2,490	723	541	137	137
12	160	1,100	833	7,000	2,310	2,140	3,280	1,880	604	395	115	577
13	163	1,220	855	4,340	1,880	1,880	2,580	1,720	489	1,160	103	550
14	156	1,220	922	2,750	1,800	1,800	2,050	1,720	425	1,800	92	388
15	148	1,160	11,300	1,880	1,880	1,960	1,800	1,500	365	3,460	88	329
16	118	1,030	12,000	2,050	1,360	2,310	2,220	1,360	308	3,460	148	262
17	130	946	6,470	1,800	1,160	2,750	10,300	1,220	268	1,880	134	449
18	130	866	5,230	2,580	994	3,110	9,430	1,100	294	1,160	115	1,030
19	124	1,360	5,580	5,410	877	2,580	6,470	1,880	301	745	109	888
20	156	11,300	4,340	8,450	922	2,310	5,940	8,260	287	550	98	614
21	193	8,830	2,930	5,410	833	2,050	2,400	10,900	237	418	82	465
22	243	4,700	2,220	3,640	855	1,720	13,300	11,100	198	329	75	315
23	268	3,640	1,640	3,460	866	1,720	10,100	6,120	163	274	100	237
24	287	2,930	1,500	3,110	844	1,960	5,760	3,640	274	214	231	193
25	388	2,400	1,290	3,280	888	2,310	3,810	2,750	958	183	214	163
26	642	2,050	1,030	4,170	9,850	2,140	4,170	2,580	1,100	172	315	137
27	541	1,640	1,030	3,990	21,000	2,220	4,520	2,750	1,100	198	465	121
28	465	1,500	1,030	3,280	11,800	2,050	3,460	3,280	888	457	329	109
29	465	1,360	1,100	2,400	------	1,880	3,460	7,000	1,360	624	225	100
30	550	1,640	1,500	1,720	------	1,640	3,810	16,600	1,960	433	156	103
31	624	------	1,720	1,500	------	1,640	------	8,640	------	294	121	------

Daily and monthly discharge, in second-feet, of Tygart River at Fetterman, W. Va., 1928–1930—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	95	1,430	2,050	3,280	1,570	3,110	1,570	789	287	141	78	5.8
2	1,020	1,640	1,720	2,750	1,290	2,750	1,960	1,500	268	121	57	5.2
3	37,600	4,340	2,140	3,110	1,430	2,490	3,810	1,220	231	109	45	4.0
4	26,800	14,600	1,800	4,170	1,800	2,220	4,340	970	209	103	35	3.3
5	13,300	9,430	1,570	3,810	10,300	2,050	3,990	811	188	103	33	2.6
6	5,230	4,340	1,360	2,930	9,430	2,490	3,280	701	160	92	31	2.3
7	2,750	2,930	1,720	2,490	5,410	3,110	3,110	756	145	82	27	2.3
8	2,050	1,960	2,930	2,140	3,640	4,520	4,880	701	134	69	25	2.1
9	1,360	1,500	3,810	1,880	2,750	9,030	5,410	642	121	61	23	2.0
10	1,010	1,290	3,460	1,800	3,110	6,650	4,700	586	395	57	20	1.8
11	778	1,100	2,750	1,720	2,930	5,230	3,990	514	2,220	47	16	1.7
12	633	1,030	2,220	1,720	2,400	5,580	3,280	1,960	2,220	41	10	1.4
13	541	946	2,750	1,880	2,400	5,230	2,580	1,020	1,160	41	9	2.3
14	473	899	6,290	1,800	3,810	4,170	2,050	899	734	50	13	2.6
15	425	1,500	6,290	1,640	5,050	3,460	1,720	1,430	532	50	19	2.2
16	388	3,810	4,520	1,500	3,640	2,930	1,430	1,800	418	61	23	2.8
17	441	4,520	3,280	1,290	2,930	2,400	1,290	1,360	550	53	32	4.0
18	402	19,300	2,750	1,160	2,580	2,050	1,160	1,160	994	44	32	5.2
19	402	20,500	3,280	946	2,580	5,230	1,290	1,100	568	35	24	9.0
20	388	9,640	5,230	680	2,580	9,640	1,360	1,290	395	44	21	9.5
21	329	4,520	4,340	745	2,490	5,940	1,220	1,160	343	57	17	9.0
22	315	3,110	3,110	910	2,400	3,810	1,160	1,010	268	47	15	7.0
23	1,100	2,310	2,490	833	2,140	2,750	1,100	866	203	44	13	6.1
24	1,430	1,960	2,050	662	2,220	2,140	1,020	712	163	69	12	4.0
25	1,430	1,640	1,640	595	3,810	1,800	899	745	250	225	11	4.6
26	1,160	1,430	1,430	568	4,700	1,800	844	614	372	193	11	5.2
27	1,010	1,290	1,640	586	5,230	1,720	745	523	433	130	13	5.8
28	982	1,640	3,280	789	3,990	1,570	662	473	329	167	14	4.0
29	958	3,280	6,650	1,800	-------	1,430	614	395	231	188	12	3.8
30	934	2,750	5,580	2,580	-------	1,640	577	358	183	121	9	3.7
31	1,020	-------	3,810	2,310	-------	1,720	-------	329	-------	98	7	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in acre-feet
1928–29					
October	642	118	289	0.216	0.25
November	11,300	418	1,920	1.43	1.60
December	18,900	811	3,870	2.89	3.33
January	8,450	1,500	3,250	2.43	2.80
February	21,000	778	2,870	2.14	2.23
March	19,800	1,640	4,450	3.32	3.83
April	13,300	1,160	4,170	3.11	3.47
May	16,600	1,100	4,890	3.65	4.21
June	4,880	163	1,050	.784	.87
July	3,460	172	816	.609	.70
August	465	75	188	.140	.16
September	1,030	53	268	.200	.22
The year	21,000	53	2,340	1.75	23.67
1929–30					
October	37,600	95	3,440	2.57	2.96
November	20,500	899	4,350	3.25	3.63
December	6,650	1,360	3,160	2.36	2.72
January	4,170	568	1,780	1.33	1.53
February	10,300	1,290	3,520	2.63	2.74
March	9,640	1,430	3,570	2.66	3.07
April	5,410	577	2,200	1.64	1.83
May	1,960	329	916	.684	.79
June	2,220	121	490	.366	.41
July	225	35	88.5	.066	.08
August	78	7	22.8	.017	.02
September	9.5	1.4	4.18	.0031	.003
The year	37,600	1.4	1,950	1.46	19.78

NOTE.—Records for the year ending Sept. 30, 1929, supersede those previously published.

MIDDLE FORK AT MIDVALE, W. VA.

LOCATION.—Staff gage one-third mile above Midvale station on Coal & Coke Railroad, Randolph County, and 1¾ miles below Laurel Creek.

DRAINAGE AREA.—122 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1930.

EXTREMES.—Maximum stage during year, 14.3 feet Oct. 2 (discharge not determined); no flow Sept. 15–25.

1915–1930: Maximum stage, 16.1 feet Jan. 28, 1918 (discharge not determined; stage-discharge relation affected by ice); no flow Sept. 15–25, 1930. Floods of 1888 and 1912 reached gage height of about 18 feet.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	199	210	332	244	293	167	116	29	9.0	1.6	[a]0.5
2	3,960	188	244	306	188	280	450	153	24	10	1.2	[a].4
3	3,330	615	188	545	167	199	510	90	20	8.0	[a]1.4	[a].6
4	1,100	1,000	157	510	157	178	545	79	16	9.0	[a]1.6	[a].3
5	615	545	210	405	1,000	167	450	71	16	6.0	[a]1.8	[a].3
6	346	360	167	332	615	244	360	90	18	5.5	1.9	[a].3
7	233	244	222	280	450	346	450	79	16	4.5	2.0	[a].7
8	167	188	510	233	346	695	545	71	19	3.6	1.4	[a].2
9	118	159	450	210	510	655	510	63	16	4.0	[a]1.0	[a].2
10	97	133	360	210	293	580	580	58	293	12	[a].8	.2
11	75	131	280	188	199	580	480	55	306	6.5	[a].6	[a].2
12	61	115	480	178	199	615	360	210	161	3.4	[a].5	[a].1
13	59	103	545	167	450	510	280	122	108	3.0	[a].4	[a].1
14	57	116	510	155	615	510	233	98	84	6.5	[a].8	[a].1
15	48	167	480	149	545	405	167	98	61	28	[a].8	0
16	43	280	390	133	280	332	159	140	49	18	[a].8	[a]0
17	59	268	332	122	332	268	143	106	55	7.5	[a]1.0	[a]0
18	59	3,330	268	115	420	244	134	101	51	5.0	1.2	[a]0
19	49	1,150	360	138	280	955	167	140	40	3.4	1.1	[a]0
20	40	615	545	133	280	655	143	147	32	[a]2.7	[a]1.0	[a]0
21	38	405	390	140	280	480	138	120	28	2.0	[a].8	[a]0
22	40	293	319	115	256	332	133	98	23	7.0	[a].8	[a]0
23	199	244	268	108	244	268	120	82	18	54	[a].8	[a]0
24	133	188	199	108	306	210	115	72	22	31	[a].8	[a]0
25	133	163	163	125	293	178	101	84	68	13	[a].8	[a]0
26	145	143	157	109	360	199	95	58	40	7.0	[a].7	[a].1
27	147	163	163	93	405	161	82	53	27	5.5	[a].7	[a].2
28	138	332	450	210	332	256	76	46	23	7.0	[a].7	[a].2
29	143	319	615	360	------	178	75	48	17	5.0	[a].7	[a].3
30	151	233	450	306	------	188	66	40	12	2.8	[a].5	.3
31	188	------	360	222	------	188	------	37	------	2.0	[a].6	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,960	15	387	3.17	3.66
November	3,333	103	413	3.39	3.78
December	615	157	337	2.76	3.18
January	545	93	217	1.78	2.05
February	1,000	157	359	2.94	3.06
March	955	161	366	3.00	3.46
April	580	66	261	2.14	2.39
May	210	37	91.1	.747	.86
June	306	12	56.4	.462	.52
July	54	2.0	9.42	.077	.09
August	2.0	.4	.99	.0081	.009
September	.7	0	.18	.0015	.002
The year	3,960	0	207	1.70	23.06

[a] Estimated.

BUCKHANNON RIVER AT HALL, W. VA.

LOCATION.—Staff gage one-fourth mile above post office at Hall, Barbour County, and 1 mile above Pecks Run.

DRAINAGE AREA.—277 square miles.

RECORDS AVAILABLE.—June, 1907, to May, 1909; April, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 10,400 second-feet Oct. 3 (gage height, 12.45 feet); minimum, 0.3 second-foot Sept. 14, 15, 23 (gage height, 1.37 feet).

1915–1930: Maximum discharge, about 12,000 second-feet Mar. 14, 1918 (gage height, 14.7 feet); minimum, that of Sept. 14, 15, 23, 1930.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	358	475	720	458	570	311	358	51	27	12	1.2
2	3,400	342	458	620	334	522	458	327	46	31	9.4	1.0
3	10,200	1,400	522	870	311	522	975	217	41	27	8.0	1.2
4	6,770	3,310	381	1,340	334	441	1,080	179	36	19	7.2	1.0
5	2,180	1,510	342	1,030	2,180	432	922	145	34	14	6.4	.9
6	870	870	358	770	1,840	670	770	138	30	12	4.8	.7
7	522	570	475	570	1,080	670	670	145	25	11	4.0	.7
8	366	415	770	475	820	1,030	820	145	27	8.7	4.0	.4
9	293	334	870	458	570	1,510	922	122	26	8.0	3.6	.4
10	217	299	770	423	620	1,290	922	103	49	9.4	3.2	.4
11	183	239	570	389	570	1,130	820	86	39	7.2	2.8	.4
12	152	226	570	373	475	1,510	670	78	197	5.6	2.4	.4
13	135	204	820	373	522	1,340	522	78	125	5.6	2.0	.4
14	122	226	870	358	1,340	1,030	406	103	81	6.0	3.6	.4
15	116	670	975	319	1,290	820	334	103	67	4.8	3.8	.4
16	106	1,080	820	293	870	620	299	158	54	5.2	3.6	.6
17	92	922	670	252	670	475	252	204	60	4.8	3.8	.6
18	116	4,670	522	226	670	475	226	172	81	5.6	3.6	.4
19	119	4,170	670	179	670	2,400	248	158	86	11	3.0	.4
20	98	1,730	1,400	145	670	1,840	282	176	67	11	2.4	.4
21	78	975	975	176	570	1,130	230	186	53	9.4	2.0	.4
22	76	670	670	212	522	770	221	165	41	12	1.7	.4
23	116	522	570	190	475	570	217	141	34	78	1.8	.4
24	319	415	475	132	670	458	204	132	34	36	1.7	.4
25	258	334	358	116	770	389	183	122	69	31	1.7	.4
26	226	287	342	103	770	406	172	116	92	29	1.4	.4
27	248	270	406	116	870	373	162	95	76	31	1.4	.6
28	248	522	1,240	311	770	334	145	76	56	42	1.4	.4
29	239	720	1,960	1,080	------	398	135	71	44	34	1.4	.4
30	258	570	1,180	770	------	415	132	65	35	22	1.0	.4
31	299	------	922	670	------	373	------	56	------	15	1.4	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	10,200	39	918	3.31	3.82
November	4,670	204	961	3.47	3.87
December	1,960	342	723	2.61	3.01
January	1,340	103	454	1.64	1.89
February	2,180	311	775	2.80	2.92
March	2,400	334	804	2.90	3.34
April	1,080	132	457	1.65	1.84
May	358	56	143	.516	.59
June	197	25	58.5	.211	.24
July	78	4.8	18.5	.067	.08
August	12	1.0	3.56	.013	.01
September	1.2	.4	.55	.0020	.002
The year	10,200	.4	441	1.59	21.61

WEST FORK RIVER AT BUTCHERVILLE, W. VA.

LOCATION.—Chain gage on trolley bridge between Weston and Clarksburg one-fourth mile above Butcherville, Lewis County.

DRAINAGE AREA.—181 square miles.

RECORDS AVAILABLE.—April, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 6,250 second-feet Oct. 3 (gage height, 20.8 feet); minimum, 0.4 second-foot Sept. 24–30.

1915–1930: Maximum discharge, 7,590 second-feet Mar. 13, 1918, Jan. 2, 1919 (gage height, 24.0 feet); no flow in October, 1919, September, October, and December, 1922, caused by either diversion or impounding at small dams upstream.

Maximum stage known, about 27 feet in 1888. Dam, since washed out, may have increased height of this flood.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	227	110	268	178	227	217	28	3.0	3.0	0.8	0.8
2	1,800	247	90	247	125	217	370	26	2.4	3.2	.8	.8
3	5,700	3,010	78	625	141	237	740	23	1.9	2.5	.9	.8
4	1,060	1,800	66	590	268	257	485	20	1.6	1.4	.8	.9
5	370	982	96	346	2,720	278	323	18	2.5	1.0	.8	.8
6	188	455	118	257	1,230	247	237	16	2.2	.8	.7	.8
7	103	133	237	178	323	982	237	17	3.0	1.2	.9	.8
8	71	96	247	141	247	1,350	395	17	2.5	1.2	.8	.8
9	47	68	74	118	188	1,270	395	15	1.9	.9	1.0	.8
10	36	56	70	133	207	700	237	12	3.2	.8	1.0	.8
11	30	51	141	133	237	941	197	8.6	2.4	.9	1.0	.8
12	25	45	133	150	247	982	159	7.1	1.9	.8	.9	.8
13	25	44	278	168	150	780	118	5.3	1.4	.8	1.0	.9
14	21	68	370	168	323	300	96	7.4	1.3	1.3	1.9	1.0
15	21	1,100	395	150	346	207	79	13	1.9	[a] 1.3	3.2	1.0
16	19	780	300	133	237	178	71	34	1.3	[a] 1.3	1.9	1.6
17	26	1,150	227	103	217	141	65	28	18	[a] .8	1.3	3.0
18	24	4,690	178	77	227	268	56	25	32	.8	1.2	2.4
19	22	1,470	278	61	346	2,380	141	22	28	.7	.9	1.9
20	18	590	323	[a] 55	278	900	150	25	22	.8	.8	1.3
21	13	257	247	[a] 60	188	300	125	24	12	.9	.9	.9
22	70	150	159	70	188	217	84	18	9.2	1.4	.8	.7
23	141	118	133	62	168	178	59	15	5.0	1.6	.8	.5
24	84	110	118	69	188	133	48	12	3.2	1.0	.8	.4
25	56	96	103	52	555	103	41	10	5.6	.9	.9	.4
26	57	84	110	40	346	125	38	9.2	5.3	.8	.8	.4
27	52	84	425	38	485	197	34	7.7	14	.9	.9	.4
28	44	268	2,550	941	323	300	31	8.9	10	1.3	.9	[a] .4
29	39	268	1,430	1,020	-------	278	28	6.2	6.8	1.0	.9	[a] .4
30	52	168	555	425	-------	217	25	4.8	4.5	1.0	.9	[a] .4
31	103	-------	370	227	-------	159	-------	3.8	-------	.8	.8	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,700	13	333	1.84	2.12
November	4,690	44	622	3.44	3.84
December	2,550	66	323	1.78	2.05
January	1,020	38	229	1.27	1.46
February	2,720	125	381	2.10	2.19
March	2,380	103	485	2.68	3.09
April	740	25	176	.972	1.08
May	34	3.8	15.7	.087	.10
June	32	1.3	7.00	.039	.04
July	3.2	.7	1.20	.0066	.008
August	3.2	.7	1.03	.0057	.007
September	3.0	.4	.92	.0051	.006
The year	5,700	.4	213	1.18	15.99

[a] Estimated.

WEST FORK RIVER AT CLARKSBURG, W. VA.

LOCATION.—Water-stage recorder at dam of Clarksburg waterworks three-fourths mile south of Clarksburg, Harrison County.
DRAINAGE AREA.—384 square miles.
RECORDS AVAILABLE.—March, 1923, to September, 1930.
EXTREMES.—Maximum discharge during year, 11,600 second-feet Oct. 3 (gage height, 6.20 feet); minimum mean daily discharge, 3.2 second-feet Sept. 28 (includes pumpage for water supply; no flow over dam July 8 to Sept. 30).
1923–1930: Maximum discharge, 16,300 second-feet May 12, 1924 (gage height, 7.76 feet); minimum, that of Sept. 28, 1930.
REMARKS.—Records good. Water diverted for supply of Clarksburg included in records. Water drawn from storage in three reservoirs between Clarksburg and Weston July 8 to Sept. 30, and also by trenching so as to draw the pools between Butcherville and Clarksburg.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	305	280	615	332	522	280	54	7.7	a 6.8	4.8	4.7
2	1,960	280	274	505	325	504	490	58	7.1	5.8	6.3	5.5
3	10,400	3,160	244	727	345	547	1,020	68	7.1	5.5	5.4	5.1
4	4,470	5,320	208	1,250	590	563	1,070	54	6.6	4.6	5.6	4.9
5	935	2,940	190	765	4,960	588	697	46	5.9	5.0	6.2	4.8
6	444	530	214	522	2,600	935	512	42	5.8	4.9	5.2	4.7
7	280	338	325	401	1,030	1,560	452	38	5.8	4.9	5.0	4.6
8	196	249	475	332	634	3,140	606	35	4.6	5.1	5.2	4.4
9	151	190	475	305	444	2,740	696	30	5.4	5.4	5.5	4.7
10	119	157	358	280	651	1,590	530	23	a 5.0	5.3	4.8	4.7
11	93	135	292	273	850	1,250	408	20	a 7.1	4.8	4.8	4.3
12	68	131	255	292	588	1,990	326	20	a 9.3	4.7	5.1	4.7
13	58	115	372	338	482	1,290	273	23	a 9.5	4.7	5.2	4.0
14	58	130	859	386	547	757	236	23	a 9.7	3.9	5.1	4.2
15	54	823	827	379	624	505	207	30	a 8.7	4.3	4.5	4.2
16	42	1,470	651	325	506	393	190	57	a 7.7	4.3	4.7	4.0
17	34	1,530	475	261	416	318	168	114	a 20	4.5	4.1	3.9
18	30	7,860	429	219	476	325	146	88	a 49	5.0	4.4	4.1
19	34	5,130	482	184	588	2,460	196	68	a 68	5.3	4.7	4.4
20	34	1,250	913	141	555	2,020	272	57	a 58	5.4	4.9	4.1
21	34	598	571	130	437	826	218	54	a 49	5.6	4.9	4.2
22	46	402	379	141	345	505	168	50	a 29	6.2	4.4	3.8
23	261	306	318	151	304	372	150	38	a 21	6.3	4.7	5.3
24	224	273	292	124	443	317	130	30	a 15	6.2	4.1	5.1
25	162	249	249	119	1,200	286	114	19	a 10	5.6	4.5	4.3
26	124	213	242	109	1,210	429	98	13	a 9.0	6.5	4.6	3.7
27	109	207	505	109	1,240	490	88	12	a 5.7	5.0	4.7	3.6
28	93	372	3,360	579	775	497	82	12	a 6.3	4.8	4.9	3.2
29	88	660	3,740	1,860	-------	538	68	12	a 6.1	5.5	5.1	3.3
30	83	429	1,520	957	-------	474	58	10	a 7.4	5.3	5.1	3.9
31	119	-------	838	497	-------	365	-------	9.5	-------	5.1	4.8	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	10,400	20	672	1.75	2.02
November	7,860	115	1,190	3.10	3.46
December	3,740	190	665	1.73	1.99
January	1,860	109	428	1.11	1.28
February	4,960	304	839	2.18	2.27
March	3,140	286	939	2.45	2.82
April	1,070	58	331	.862	.96
May	114	9.5	39.0	.102	.12
June	68	4.6	15.6	.041	.05
July	6.8	3.9	5.24	.014	.02
August	6.3	4.1	4.95	.013	.01
September	5.5	3.2	4.35	.011	.01
The year	10,400	3.2	425	1.11	15.01

a Estimated.

CHEAT RIVER NEAR PARSONS, W. VA.

LOCATION.—Chain gage at highway bridge 1¾ miles north of Parsons, Tucker County, and 2¾ miles below confluence of Dry and Shavers Forks. Zero of gage 1,591.24 feet above mean sea level.

DRAINAGE AREA.—719 square miles.

RECORDS AVAILABLE.—January, 1913, to September, 1930.

EXTREMES.—Maximum discharge during year, 31,200 second-feet Oct. 2 (gage height, 14.20 feet; from graph based on daily gage readings); minimum, 9 second-feet Aug. 12 (gage height, 1.28 feet).

1913–1930: Maximum discharge, about 50,000 second-feet Mar. 12, 1917 (gage height, 18.03 feet); minimum, that of Aug. 12, 1930.

Maximum stage known, 20.0 feet July 10, 1888 (discharge, about 80,000 second-feet).

REMARKS.—Records good except those for periods of ice effect, Nov. 29 to Dec. 4, Dec. 21–25, Jan. 18 to Feb. 3, Feb. 8–12, 15–18, Jan. 27 to Mar. 5, which are fair. Records collected by West Virginia Power & Transmission Co. under general supervision of the United States Geological Survey, in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	1,380	680	1,380	310	1,710	725	638	161	107	34	44
2	13,200	1,150	680	1,780	335	1,380	1,710	680	150	110	30	38
3	16,400	5,590	680	2,360	384	1,200	1,920	558	134	107	22	35
4	7,020	6,080	680	1,990	847	1,050	2,580	485	118	104	19	33
5	4,200	3,140	725	1,380	2,820	1,000	1,850	450	107	90	15	26
6	2,140	2,060	905	1,380	1,850	1,150	1,580	450	101	82	18	23
7	1,510	1,510	1,200	1,320	1,260	1,710	3,300	595	127	75	20	21
8	1,000	1,200	3,300	1,260	1,050	3,300	3,390	520	115	70	20	21
9	815	1,000	2,900	1,440	905	3,140	2,440	450	213	59	17	20
10	638	815	1,850	1,320	815	2,360	2,900	390	4,590	56	15	19
11	520	815	1,640	1,100	815	2,440	2,660	335	3,910	49	11	18
12	450	860	1,710	950	815	2,360	2,060	379	1,580	45	10	16
13	420	770	2,980	1,000	1,780	1,920	1,510	390	950	52	14	19
14	390	815	4,600	905	2,820	2,900	1,260	384	638	147	23	22
15	352	1,640	3,570	905	1,850	2,280	1,100	450	485	199	51	26
16	315	1,780	2,510	770	1,150	1,850	1,050	815	390	184	82	30
17	638	1,890	1,920	595	950	1,850	1,150	595	343	127	63	33
18	520	10,900	1,580	420	905	2,180	1,050	485	353	101	59	30
19	379	6,350	1,640	310	1,050	7,990	1,050	638	299	75	63	30
20	299	3,220	1,920	325	1,510	4,510	950	680	251	57	52	24
21	265	2,140	950	352	1,920	2,740	860	558	203	49	44	19
22	6,920	1,640	860	330	1,710	1,920	950	420	173	66	39	16
23	7,880	1,320	815	284	1,850	1,380	860	357	154	242	35	14
24	3,140	1,150	770	270	2,740	1,200	725	340	163	110	37	14
25	1,850	1,000	770	289	3,390	1,050	680	315	485	85	33	17
26	1,380	860	725	325	3,060	1,000	595	294	343	70	33	20
27	1,380	1,000	815	357	3,140	815	520	246	213	65	38	18
28	1,050	1,920	1,570	390	2,140	770	485	237	165	54	35	17
29	950	1,150	2,440	384	-------	860	450	229	134	49	46	18
30	1,000	770	1,710	357	-------	905	450	199	113	45	56	17
31	1,380	-------	1,380	330	-------	860	-------	184	-------	37	48	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	16,400	90	2,530	3.52	4.06
November	10,900	770	2,200	3.06	3.41
December	4,600	680	1,630	2.27	2.62
January	2,360	270	857	1.19	1.37
February	3,390	310	1,580	2.20	2.29
March	7,990	770	1,990	2.77	3.19
April	3,390	450	1,430	1.99	2.22
May	815	184	443	.616	.71
June	4,590	101	573	.797	.89
July	242	37	89.3	.124	.14
August	82	10	34.9	.049	.06
September	44	14	23.3	.032	.04
The year	16,400	10	1,110	1.54	21.00

BLACKWATER RIVER ABOVE BEAVER CREEK, NEAR DAVIS, W. VA.

LOCATION.—Staff gage 1 mile east of Davis, Tucker County, and three-fourths mile above Beaver Creek. Gage moved three-fourths mile upstream Sept. 20, 1930.

DRAINAGE AREA.—60.1 square miles until Sept. 20, 1930; 58.6 square miles thereafter.

RECORDS AVAILABLE.—May, 1929, to September, 1930.

EXTREMES.—Maximum discharge during year, 1,500 second-feet Oct. 2 (gage height, 4.94 feet; from graph based on daily gage readings); minimum, 2.8 second-feet Aug. 13, Sept. 25 (gage height, 0.85 foot on old gage; 0.25 foot on new gage).

1929–30: Maximum discharge, that of Oct. 2, 1929; minimum, that of Aug. 13, Sept. 25, 1930.

REMARKS.—Records good except those for periods of ice effect, Nov. 29 to Dec. 7, Dec. 21–28, Jan. 6, Jan. 17 to Feb. 4, Feb. 6–20, Mar. 3–6, which are fair. Records collected by West Virginia Power & Transmission Co. under general supervision of the United States Geological Survey in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10.2	122	80	130	41	143	80	73	14	11	3.7	4.0
2	876	113	80	200	57	130	188	48	13	11	3.3	3.8
3	1,080	339	80	227	87	128	200	40	13	12	3.3	4.0
4	854	476	80	175	175	122	200	34	12	11	3.3	3.7
5	441	357	80	152	541	115	134	32	10.5	9.6	3.1	3.3
6	256	188	107	120	242	111	120	36	11	8.6	3.1	3.3
7	128	152	214	120	141	175	227	42	13	9.0	3.7	3.1
8	88	109	339	120	113	287	242	32	19	8.3	4.0	3.3
9	70	98	287	150	101	242	200	28	20	7.4	3.7	3.3
10	57	83	175	132	94	214	256	26	220	7.7	3.1	3.3
11	50	82	152	98	100	256	200	25	214	6.9	3.0	3.3
12	44	80	164	94	113	227	139	23	107	6.2	2.9	3.2
13	40	73	256	100	287	188	111	22	44	7.2	2.8	3.7
14	37	82	476	88	304	304	98	23	32	19	6.9	4.0
15	35	130	435	82	200	214	88	26	26	15	15	4.4
16	31	134	287	73	130	175	87	40	23	10.5	11	4.2
17	90	213	188	63	117	164	126	30	26	8.3	8.0	4.1
18	60	476	164	52	113	207	100	30	26	7.4	6.5	3.9
19	41	498	164	44	150	575	101	42	20	6.9	5.1	3.8
20	36	287	150	42	175	498	87	41	18	5.8	4.6	3.6
21	32	175	120	42	175	256	73	34	15	4.9	4.0	3.4
22	449	132	82	42	141	164	98	24	14	6.7	4.0	3.4
23	1,090	117	82	42	130	130	76	20	13	26	4.4	3.1
24	637	101	80	42	200	113	63	19	29	11	5.1	3.0
25	305	90	80	42	321	107	67	20	54	8.0	6.0	3.0
26	188	80	80	42	287	87	60	18	25	6.5	5.6	3.4
27	164	117	85	42	272	75	54	17	16	5.1	5.8	4.0
28	124	143	164	42	175	96	48	18	14	5.1	6.9	3.9
29	107	80	214	42	------	100	45	17	13	5.1	5.6	3.5
30	113	80	150	42	------	107	42	15	12	4.6	4.7	3.2
31	139	------	117	41	------	87	------	14	------	4.0	4.0	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,090	10.2	247	4.11	4.74
November	498	73	174	2.90	3.24
December	476	80	168	2.80	3.23
January	227	41	87.8	1.46	1.68
February	541	41	178	2.96	3.08
March	575	75	187	3.11	3.58
April	256	42	120	2.00	2.23
May	73	14	29.3	.488	.56
June	220	10.5	36.2	.602	.67
July	26	4.0	8.90	.148	.17
August	15	2.8	5.04	.084	.10
September	4.4	3.0	3.57	.060	.07
The year	1,090	2.8	103	1.71	23.35

BLACKWATER RIVER AT DAVIS, W. VA.

LOCATION.—Staff gage three-eighths mile southwest of Davis Tucker County, and half a mile below Beaver Creek.

DRAINAGE AREA.—87.0 square miles.

RECORDS AVAILABLE.—April, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,140 second-feet Oct. 2 (gage height, 7.45 feet; from graph based on daily gage readings); minimum, 2.3 second-feet Aug. 2 (gage height, 0.82 foot; from graph based on daily gage readings).

1921–1930: Maximum discharge, 7,170 second-feet Mar. 29, 1924 (gage height, 13.20 feet); minimum, that of Aug. 2, 1930.

REMARKS.—Records good except those for periods of ice effect, Nov. 22–24, Nov. 29 to Dec. 5, Dec. 21–26, Jan. 17–26, Feb. 1, 7–12, 16–18, Mar. 4, 5, which are fair. Flow slightly regulated by storage in two small reservoirs. Records collected by West Virginia Power & Transmission Co. under general supervision of the United States Geological Survey in connection with a Federal Power Commission project.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	178	116	188	60	210	109	140	20	16	5.2	7.0
2	1,220	136	116	279	62	167	292	77	18	16	2.6	5.8
3	1,780	600	115	346	65	98	279	62	17	19	3.8	5.5
4	1,150	729	113	255	188	90	292	54	16	17	3.9	5.2
5	656	420	113	188	840	107	188	50	14	15	4.3	4.9
6	305	244	128	178	318	167	167	59	14	13	3.8	4.7
7	178	188	255	167	199	267	346	70	18	13	3.3	4.6
8	122	156	602	167	167	390	346	52	37	12	4.6	4.3
9	95	132	408	221	140	305	267	46	52	11	4.6	4.4
10	80	113	232	188	132	279	360	43	529	9.5	4.4	4.6
11	68	120	210	136	138	360	270	39	365	9.5	4.1	4.6
12	60	113	244	128	146	292	199	37	152	8.3	3.9	4.6
13	56	98	392	140	405	267	156	37	66	9.1	3.6	4.7
14	54	118	765	122	483	451	132	38	50	36	7.9	5.5
15	47	232	585	115	305	305	122	42	42	29	26	6.4
16	44	210	375	100	188	244	118	64	35	17	19	6.1
17	140	767	255	88	167	232	167	46	38	13	13	6.1
18	84	905	210	74	156	307	138	46	40	11	9.5	7.9
19	58	692	255	59	210	937	156	76	33	9.5	7.9	4.9
20	49	390	221	59	255	637	124	64	25	8.3	7.0	4.3
21	49	244	146	59	255	332	100	51	22	7.6	5.5	4.3
22	903	167	118	59	210	221	146	37	22	10	5.5	4.3
23	1,550	146	116	59	188	167	109	31	19	51	6.1	4.3
24	819	134	115	59	292	167	90	30	39	22	7.0	4.3
25	360	122	113	59	535	144	97	33	100	14	8.3	4.3
26	255	115	113	59	436	144	82	28	42	10	8.3	4.5
27	221	188	115	64	390	93	72	25	27	7.6	7.9	5.2
28	167	232	279	68	255	156	68	26	23	6.7	8.7	7.3
29	156	132	318	60	-------	142	66	24	19	6.7	8.7	6.7
30	167	120	210	58	-------	156	62	22	18	6.1	7.9	5.5
31	199	-------	167	58	-------	118	-------	21	-------	4.9	6.7	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,780	12	358	4.11	4.74
November	905	98	271	3.11	3.47
December	765	113	243	2.79	3.22
January	346	58	125	1.44	1.66
February	840	60	257	2.95	3.07
March	937	90	257	2.95	3.40
April	360	62	171	1.97	2.20
May	110	21	47.4	.545	.63
June	529	14	63.7	.732	.82
July	51	4.9	14.2	.163	.19
August	26	2.6	7.19	.083	.10
September	7.9	4.3	5.23	.060	.07
The year	1,780	2.6	151	1.74	23.57

BEAVER RIVER BASIN

MAHONING RIVER NEAR DEERFIELD, OHIO

LOCATION.—Chain gage in T. 1 N., R. 6 W., at highway bridge 1 mile above Willow Creek and 2½ miles southwest of Deerfield, Portage County.

DRAINAGE AREA.—175 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,810 second-feet Feb. 26 (gage height, 9.32 feet); minimum, 2.2 second-feet Aug. 30 (gage height, 1.40 feet).

1923–1930: Maximum discharge, about 10,300 second-feet June 29, 1924 (gage height, 17.4 feet); minimum, that of Aug. 30, 1930.

Flood of March, 1913, reached stage equivalent to gage height 19.0 feet.

REMARKS.—Records good except those for extremely high water and for periods of ice effect, which are fair. Discharge estimated Nov. 28–30, Dec. 24–25, Jan. 21 to Feb. 1, because of ice effect.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	28	39	350	30	455	375	62	18	18	3.7	3.0
2	78	157	35	1,430	39	375	515	51	20	14	3.4	3.6
3	62	176	29	2,030	74	300	325	42	8.9	11	3.6	4.2
4	54	120	29	1,030	235	235	195	32	9.6	8.9	3.4	4.7
5	41	78	29	325	275	225	235	30	8.9	7.6	3.0	5.7
6	31	51	45	235	195	375	300	80	9.6	7.9	2.5	6.9
7	30	41	176	255	138	375	545	97	10	6.2	3.1	8.2
8	23	34	225	910	110	1,830	790	64	11	6.2	3.7	9.6
9	23	29	275	1,630	92	1,530	610	47	11	5.7	4.2	7.6
10	21	25	166	1,530	74	1,030	186	28	14	5.2	4.7	6.9
11	18	59	88	610	74	575	113	25	25	8.9	3.4	6.9
12	15	90	235	610	74	325	103	24	20	8.2	3.6	5.2
13	18	73	610	1,930	715	300	69	21	16	4.2	3.1	4.2
14	21	350	830	2,330	645	205	67	21	14	8.9	3.4	3.6
15	18	425	375	1,730	375	148	62	32	9.6	9.6	3.1	3.7
16	17	255	300	425	176	120	148	31	11	8.6	3.7	4.2
17	16	300	275	245	97	103	325	31	20	7.6	4.2	9.3
18	16	1,880	990	205	66	195	255	25	19	4.2	3.7	10
19	15	2,510	990	176	97	485	195	40	35	4.2	3.6	8.9
20	12	990	545	157	186	255	120	110	18	3.7	3.4	7.6
21	14	425	195		255	166	88	70	14	2.8	3.6	6.2
22	20	186	157		215	138	91	53	13	4.4	3.4	4.7
23	96	148	157	60	195	97	82	47	18	6.2	3.7	9.6
24	96	91	120		176	94	72	42	19	4.7	4.2	9.3
25	73	74			1,530	129	69	21	35	4.2	3.7	18
26	64	66	106		2,390	235	62	19	12	3.7	3.6	24
27	44	71	77		2,390	205	51	18	15	9.6	3.4	27
28	32		103	40	680	275	51	28	17	6.2	3.1	16
29	26	50	112		-------	325	58	21	12	5.7	2.5	8.9
30	24		120		-------	275	55	21	9.6	5.4	2.2	6.9
31	23	-------	138		-------	215	-------	19	-------	4.7	3.4	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	96	12	34.3	0.196	0.23
November	2,510	25	296	1.69	1.89
December	990	29	248	1.42	1.64
January	2,330	----------	603	3.45	3.98
February	2,390	30	414	2.37	2.47
March	1,830	94	374	2.14	2.47
April	790	51	207	1.18	1.32
May	110	18	40.4	.231	.27
June	35	8.9	15.8	.090	.10
July	18	2.8	6.98	.040	.05
August	4.7	2.2	3.46	.020	.02
September	27	3.0	8.49	.048	.05
The year	2,510	2.2	186	1.06	14.49

MAHONING RIVER AT PRICETOWN, OHIO

LOCATION.—Water-stage recorder in T. 2 N., R. 5 W., about half a mile southwest of Pricetown and one-fourth mile south of line between Mahoning and Trumbull Counties. Zero of gage 905.50 feet above mean sea level.

DRAINAGE AREA.—276 square miles.

RECORDS AVAILABLE.—July, 1929, to September, 1930.

EXTREMES.—Maximum discharge during year, 4,070 second-feet Jan. 14 (gage height, 10.5 feet); minimum, 18 second-feet Sept. 17–19 (gage height, 1.40 feet).

1929–30: Maximum discharge, that of Jan. 14, 1930; minimum, 7.5 second-feet Sept. 13, 1929 (gage height, 1.23 feet).

REMARKS.—Records excellent except those estimated because of ice effect, Nov. 23–30, Dec. 21–22, which are fair. Flow regulated by storage in Milton Reservoir.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	44	99	420	81	908	359	128	79	72	44	19
2	48	46	79	1,980	77	528	432	135	79	74	38	19
3	46	46	79	2,890	77	492	601	77	79	74	28	19
4	46	46	81	1,880	79	395	395	77	77	72	31	19
5	46	46	74	830	114	325	251	81	104	71	43	20
6	46	46	74	426	188	395	212	79	130	69	43	20
7	46	46	74	365	188	678	338	81	128	68	36	20
8	44	48	18	907	164	2,560	1,060	77	130	66	20	20
9	44	48	296	2,160	141	2,240	840	77	128	66	20	20
10	44	49	335	2,130	128	1,020	426	79	104	64	20	20
11	44	46	251	1,300	122	528	251	79	7[illegible]	68	20	20
12	43	46	188	1,240	120	458	175	81	7[illegible]	90	20	20
13	44	48	667	3,110	303	458	152	79	9[illegible]	99	20	20
14	44	65	1,660	3,830	715	380	122	77	106	85	20	19
15	44	77	1,340	3,000	492	264	108	74	106	79	38	19
16	44	79	715	1,640	251	200	106	76	108	79	36	19
17	44	79	584	715	175	188	206	76	108	77	22	18
18	44	89	1,320	350	141	188	395	76	108	77	20	18
19	44	1,980	1,630	188	128	492	306	72	108	77	20	18
20	46	2,020	1,240	152	164	528	238	72	106	77	20	20
21	46	930	348	152	278	320	188	74	106	77	20	20
22	46	492		141	320	238	141	76	108	48	20	20
23	46		164	122	292	175	124	79	108	23	20	22
24	46	200	141	114	411	152	112	77	110	23	19	20
25	46		116	108	1,880	164	104	77	88	22	19	20
26	44		110	99	3,280	541	95	77	7[illegible]	22	19	19
27	43		106	91	2,780	458	91	77	7[illegible]	22	19	19
28	44	90	104	88	1,610	350	88	77	7[illegible]	20	19	20
29	46		130	84	-------	380	86	76	72	20	19	22
30	44		164	84	-------	492	88	76	72	20	19	22
31	44		164	82	-------	458	-------	76	-------	27	20	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	48	43	45.0	May	135	72	80.5
November	2,020	44	249	June	130	71	96.6
December	1,660	74	412	July	99	20	59.0
January	3,830	82	990	August	44	19	24.9
February	3,280	77	525	September	22	18	19.7
March	2,560	152	547				
April	1,060	86	270	The year	3,830	18	276

MAHONING RIVER AT WARREN, OHIO

LOCATION.—Water-stage recorder at dam 200 feet below Erie Railroad crossing (Shenango branch) in Warren, Trumbull County.
DRAINAGE AREA.—599 square miles.
RECORDS AVAILABLE.—October, 1924, to September, 1930.
EXTREMES.—Maximum discharge during year, 7,330 second-feet Jan. 14 (gage height, 6.09 feet); minimum mean daily discharge, 8.3 second-feet Aug. 10. 1924–1930: Maximum discharge, 10,500 second-feet Feb. 27, 1929 (gage height, 7.2 feet); minimum mean daily discharge, that of Aug. 10 1930.
REMARKS.—Records good except those for periods of ice effect, Dec. 1–7, 21–28, Jan. 19 to Feb. 2, which are fair. Water diverted past right end of dam by Ohio Public Service Co. included in records. City of Warren diverted a mean of 5.3 second-feet for municipal supply which is not included in records. Slight regulation caused by operation of Milton Reservoir above station.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	94		608	170	1,830	864	232	108	90	28	38
2	70	114		3,140	170	1,150	978	286	105	87	40	44
3	78	132	120	5,490	224	1,080	1,470	230	102	92	38	44
4	62	160		4,860	274	864	1,020	161	96	91	37	47
5	64	132		2,150	403	765	658	140	99	89	28	43
6	76	118	110	1,150	479	814	475	134	128	89	40	34
7	71	103	155	920	487	1,080	521	137	149	113	29	43
8	63	93	412	1,510	479	3,470	1,510	136	139	96	30	41
9	57	88	820	4,400	454	4,760	1,750	130	155	90	12	43
10	54	92	771	5,010	394	2,720	1,120	100	172	78	8.3	38
11	64	102	556	3,370	411	1,320	658	107	151	80	8.7	36
12	76	114	440	2,550	331	1,020	458	110	124	86	21	36
13	76	120	789	5,510	682	914	365	110	99	117	24	21
14	64	156	2,890	7,050	1,840	914	311	110	111	137	18	35
15	70	286	2,600	6,780	1,500	731	268	114	124	133	32	37
16	67	268	1,550	4,680	744	516	250	114	135	120	31	42
17	53	225	1,220	2,070	446	434	541	120	149	109	48	45
18	52	784	2,990	1,090	365	419	1,270	123	153	105	30	43
19	73	2,980	3,650	624	324	758	1,020	123	157	98	29	38
20	77	3,420	2,690	409	388	1,020	658	126	162	98	32	24
21	69	2,110	1,190		585	736	466	143	141	95	38	37
22	81	1,080	490		715	524	388	134	134	99	44	35
23	107	642	338	300	687	403	338	123	126	60	56	30
24	155	460			833	338	292	115	132	28	73	38
25	125	364			2,600	346	250	112	122	34	73	34
26	125	324	220		4,770	1,060	224	108	105	16	51	40
27	116	344			5,250	1,350	152	105	90	36	37	42
28	95	317		200	4,000	914	165	102	85	36	47	18
29	94	280	344		-------	814	165	105	92	24	45	31
30	94	236	386		-------	970	180	105	89	23	31	42
31	94	-------	417		-------	1,090	-------	112	-------	28	35	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	155	52	80.4	May	286	100	132
November	3,420	88	525	June	172	85	124
December	3,650	-------	855	July	137	16	79.9
January	7,050	-------	2,130	August	73	8.3	35.3
February	5,250	170	1,070	September	47	18	37.3
March	4,760	338	1,130				
April	1,750	152	626	The year	7,050	8.3	568

MAHONING RIVER AT YOUNGSTOWN, OHIO

LOCATION.—Water-stage recorder 400 feet above Bridge Street Bridge at Youngstown, Mahoning County. Zero of gage 826.53 feet above mean sea level.

DRAINAGE AREA.—899 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1930. May, 1903, to July 1906, at station 4½ miles downstream.

EXTREMES.—Maximum discharge during year, 10,600 second-feet Jan. 14 (gage height, 10.7 feet); minimum, 28 second-feet Aug. 14 (gage height, 1.80 feet).

1921–1930: Maximum discharge, 14,000 second-feet Dec. 14, 1927 (gage height, 12.7 feet); minimum, that of Aug. 14, 1930.

Maximum known stage, 26.5 feet Mar. 26, 1913.

REMARKS.—Records excellent. Water diverted for municipal supply above station. Flow slightly regulated at Milton Reservoir.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	106	237	1,220	206	3,060	1,220	625	140	110	45	62
2	93	176	201	3,640	201	2,040	1,490	563	136	113	31	72
3	117	192	163	6,740	280	1,710	2,150	395	96	113	32	68
4	103	192	155	6,880	402	1,380	1,490	294	93	103	35	55
5	87	172	143	4,060	625	1,220	910	273	110	103	32	52
6	87	136	147	2,150	625	1,380	625	262	110	121	31	53
7	87	163	172	1,710	625	1,930	718	273	184	128	34	49
8	78	155	581	2,370	580	4,940	2,150	252	184	113	42	53
9	75	124	1,220	5,200	504	6,740	2,480	224	188	113	42	50
10	72	110	1,110	6,600	479	4,680	1,600	224	288	96	38	45
11	72	136	812	4,940	471	2,370	1,060	219	247	93	41	45
12	70	136	670	4,030	448	1,820	718	206	196	96	38	44
13	93	151	1,180	7,450	1,060	1,490	456	167	167	196	37	53
14	78	219	3,060	9,700	2,260	1,380	354	155	155	206	34	45
15	70	471	3,660	10,200	2,040	1,060	268	151	184	159	36	45
16	72	448	2,480	7,600	1,270	765	242	151	206	140	30	55
17	72	368	2,040	3,930	910	625	646	151	232	117	35	65
18	70	1,920	3,540	2,260	670	670	1,600	172	268	117	39	55
19	62	3,300	4,940	1,490	471	1,110	1,930	196	288	110	39	62
20	70	4,030	4,160	960	563	1,380	1,490	206	252	110	38	60
21	75	3,180	2,260	529	812	1,110	910	228	214	110	44	49
22	83	2,150	1,160	424	1,010	718	529	210	196	113	55	42
23	106	1,490	765	416	1,010	495	335	180	180	96	78	45
24	167	1,060	572	395	1,160	375	278	176	180	65	121	50
25	163	718	424	318	3,380	440	242	167	176	55	83	60
26	136	395	347	278	7,300	2,590	224	147	167	50	80	68
27	132	335	300	257	7,160	2,040	188	136	136	53	55	78
28	110	341	288	257	5,900	1,490	184	140	110	55	50	75
29	93	294	844	252	------	1,380	176	132	110	53	53	65
30	106	247	860	232	------	1,490	255	143	117	52	49	53
31	103	------	910	219	------	1,490	------	143	------	52	49	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	167	62	92.8	May	625	132	225
November	4,030	106	764	June	288	93	177
December	4,940	143	1,270	July	206	50	104
January	10,200	219	3,120	August	121	30	46.6
February	7,300	201	1,520	September	78	42	55.8
March	6,740	375	1,790				
April	2,480	176	897	The year	10,200	30	836

WEST BRANCH OF MAHONING RIVER NEAR NEWTON FALLS, OHIO

LOCATION.—Water-stage recorder in T. 3 N., R. 6 W., 2½ miles southwest of Newton Falls and about 6 miles above mouth.

DRAINAGE AREA.—97.8 square miles.

RECORDS AVAILABLE.—June, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, 1,870 second-feet Jan. 13 (gage height, 7.85 feet); minimum, 3.6 second-feet Aug. 3 (gage height, 0.95 foot). 1926–1930: Maximum discharge, about 3,540 second-feet Dec. 1, 1927; minimum, that of Aug. 3, 1930.

REMARKS.—Records fair. Periods of ice effect Nov. 28–30, Jan. 19 to Feb. 2, Feb. 15–18. Gage-height record obtained in cooperation with Mahoning Valley Sanitary District.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	19		173	30	114	107	90	13	8.3	4.9	9.9
2	12	32	20	1,360	30	143	346	49	13	11	4.4	9.9
3	13	48		1,500	44	114	174	34	12	11	4.0	9.1
4	14	40	21	302	73	99	100	25	12	9.1	4.0	7.4
5	13	31	21	150	107	100	74	24	11	8.3	4.0	7.4
6	12	25	21	114	92	158	63	28	9.1	9.1	4.4	7.4
7	12	22	26	128	74	197	216	36	9.1	9.1	4.9	7.4
8	12	22	135	653	66	1,280	342	26	9.1	7.4	5.4	7.4
9	12	19	128	1,380	60	344	143	22	8.3	7.4	4.9	7.4
10	12	19	77	708	61	143	89	20	12	5.8	4.9	7.4
11	12	26	60	192	56	114	69	17	21	5.8	4.9	6.6
12	13	36	49	806	52	114	56	16	15	5.8	4.9	6.6
13	14	32	332	1,740	574	128	50	16	11	6.6	4.4	6.6
14	14	52	502	1,360	408	136	47	16	9.1	17	5.4	6.6
15	14	65	166	735		83	42	18	8.3	14	5.4	5.8
16	14	53	107	182	90	69	44	22	12	11	5.8	8.3
17	14	40	373	107		61	315	22	26	8.3	6.6	14
18	14	518	1,010	100		92	204	18	29	6.6	7.4	12
19	14	558	468	90	55	166	128	20	26	5.8	7.4	7.4
20	13	182	176		89	107	78	31	17	5.8	6.6	6.6
21	14	121	97		114	77	61	31	14	5.8	7.4	6.6
22	23	78	94		93	60	68	24	11	5.8	12	6.6
23	52	54	52	70	89	48	60	18	9.1	7.4	12	6.6
24	40	44	43		150	47	53	16	8.3	6.6	19	8.3
25	35	31	41		888	92	47	15	9.1	5.8	15	9.9
26	34	32	40		1,200	319	43	14	9.1	5.8	9.9	13
27	24	35	42		414	150	38	13	9.1	8.3	11	14
28	21		50	50	158	107	37	13	9.9	9.1	9.1	12
29	19	30	60		-------	143	43	14	9.1	5.8	8.3	9.9
30	18		61		-------	166	46	14	8.3	5.8	8.3	9.1
31	19	-------	65		-------	143	-------	14	-------	5.4	8.3	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	52	12	18.0	0.184	0.21
November	558	19	77.5	.792	.88
December	1,010	----------	141	1.44	1.66
January	1,740	----------	404	4.13	4.76
February	1,200	----------	191	1.95	2.03
March	1,280	47	165	1.69	1.95
April	346	37	106	1.08	1.20
May	90	13	23.7	.242	.28
June	29	8.3	12.7	.130	.15
July	17	5.4	7.90	.081	.09
August	19	4.0	7.25	.074	.09
September	14	5.8	8.57	.088	.10
The year	1,740	4.0	96.6	.988	13.40

EAGLE CREEK AT PHALANX STATION, OHIO

LOCATION.—Water-stage recorder at highway bridge 1 mile north of Phalanx Station, Trumbull County, and 2 miles below Tinker Creek. Zero of gage 887.42 feet above mean sea level.

DRAINAGE AREA.—97.0 square miles.

RECORDS AVAILABLE.—June, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,020 second-feet Jan. 14 (gage height, 10.16 feet); minimum, 1.1 second-feet Sept. 11 (gage height, 1.90 feet).

1926–1930: Maximum discharge, 3,240 second-feet Dec. 1, 1927; minimum discharge, that of Sept. 11, 1930; minimum gage height, 1.54 feet Aug. 14, 1926.

REMARKS.—Records good. Flow at low stages regulated by mill dam several miles upstream. Gage-height record furnished by Mahoning Valley Sanitary District.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	21		112	38	130	110	37	18	14	5.9	11
2	22	30		779	38	158	357	34	18	17	12	12
3	16	48	40	1,540	49	124	251	30	17	11	1.7	14
4	14	36		605	73	98	104	30	17	12	4.7	9.0
5	13	33		151	91	104	75	30	17	12	7.8	9.0
6	15	35	33	117	82	200	65	31	17	13	5.9	9.7
7	15	30	39	130	70	228	163	32	16	16	7.5	4.3
8	16	24	195	394	58	810	360	30	17	16	9.7	12
9	16	22	285	1,260	48	665	165	29	18	9.6	7.9	8.7
10	17	21	98	860	64	200	90	28	18	10	2.1	8.2
11	19	34	65	354	58	124	69	29	31	11	10	7.4
12	18	42	55	470	56	117	57	27	23	11	5.1	8.6
13	11	34	212	1,780	325	104	51	26	20	10	3.2	9.5
14	21	64	546	1,600	559	98	49	25	21	20	7.7	2.4
15	18	64	220	995	190	73	44	25	11	17	7.7	11
16	18	47	110	366	84	61	64	29	22	11	7.9	8.0
17	18	41	166	130	55	58	280	27	22	12	3.5	17
18	16	270	666	104	45	83	316	24	26	9.6	11	9.8
19	18	555	644	91	60	144	130	26	31	8.9	7.4	7.0
20	16	309	251	74	86	91	77	37	25	7.5	7.9	12
21	27	124	104	65	98	72	62	30	19	12	6.5	3.9
22	24	78	65	62	83	57	60	26	18	8.4	10	14
23	61	52	51	57	87	49	53	23	16	7.3	16	5.1
24	44	42	47	51	194	48	50	23	15	6.5	14	5.6
25	39	40	46	49	898	94	46	21	15	4.2	27	6.4
26	38	36	45	49	1,060	338	42	20	15	8.8	20	6.6
27	28	42	45	45	614	207	39	19	11	3.0	17	14
28	22	57	55	46	214	110	38	20	16	10	12	11
29	21	52	66	45	-------	130	40	18	13	7.6	12	16
30	20	50	69	40	-------	200	39	20	12	11	8.6	7.4
31	19	-------	69	39	-------	158	-------	19	-------	7.0	3.7	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	61	11	21.7	0.224	0.26
November	555	21	77.8	.802	.89
December	666	33	143	1.47	1.69
January	1,780	39	402	4.14	4.77
February	1,060	38	192	1.98	2.06
March	810	48	166	1.71	1.97
April	360	38	112	1.15	1.28
May	37	18	26.6	.274	.32
June	31	11	18.5	.191	.21
July	20	3.0	10.8	.111	.13
August	27	1.7	9.14	.094	.11
September	17	2.4	9.35	.096	.11
The year	1,780	1.7	98.8	1.02	13.80

MOSQUITO CREEK AT NILES, OHIO

LOCATION.—Water-stage recorder at dam in Niles, Trumbull County.
DRAINAGE AREA.—139 square miles.
RECORDS AVAILABLE.—June, 1929, to September, 1930.
EXTREMES.—Maximum discharge during year, 1,680 second-feet Jan. 15 (gage height, 4.13 feet); minimum, 0.2 second-foot several days in October and July, and Aug. 1 to Sept. 30; minimum gage height, 1.28 feet Sept. 30.
1929–30: Maximum discharge, that of Jan. 15, 1930; minimum, 0.2 second-foot numerous days in August to October, 1929, and July to September, 1930.
REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	5.6	47	173	19	558	270	185	1.5	1.1	0.2	0.2
2	4.9	10.0	32	452	22	449	319	100	2.3	1.5	.2	.2
3	4.4	8.5	25	868	25	349	364	47	2.3	.9	.2	.2
4	2.3	7.0	19	972	44	263	305	28	2.3	.9	.2	.2
5	1.2	5.6	16	868	72	217	229	19	1.5	.5	.2	.2
6	.9	7.0	16	673	78	217	137	16	1.9	1.6	.2	.2
7	1.5	7.0	27	482	82	285	137	14	1.5	2.3	.2	.2
8	1.5	7.0	100	449	82	602	277	12	1.5	3.2	.2	.2
9	.5	5.6	185	692	82	783	334	8.5	2.3	2.3	.2	.2
10	.3	5.6	210	982	82	673	371	7.0	6.3	1.6	.2	.2
11	.2	5.6	217	915	75	567	364	5.6	5.3	.3	.2	.2
12	.2	5.6	249	820	75	433	263	4.3	4.3	.2	.2	.2
13	.7	7.0	319	1,260	174	291	126	4.3	3.2	2.9	.2	.2
14	2.4	10	473	1,580	342	204	72	4.3	3.2	2.6	.2	.2
15	3.2	14	524	1,520	410	152	54	4.3	3.2	1.5	.2	.2
16	3.7	26	433	1,020	410	126	50	5.6	5.7	.7	.2	.2
17	3.4	52	433	664	379	104	189	5.6	8.5	.4	.2	.2
18	1.5	191	584	392	238	100	425	5.6	14	5.0	.2	.2
19	.5	319	756	217	113	131	756	5.6	14	4.3	.2	.2
20	.3	449	701	152	122	152	637	7.0	16	3.7	.2	.2
21	.2	593	524	91	163	179	410	7.0	12	2.7	.2	.2
22	.3	593	426	64	192	137	194	7.0	14	1.2	.2	.2
23	.9	457	298	54	210	86	91	8.5	16	.9	.2	.2
24	1.5	306	174	47	217	64	64	7.0	12	.5	.2	.2
25	3.2	148	82	38	417	77	58	5.6	8.5	.3	.2	.2
26	4.3	82	58	32	774	248	47	4.3	7.0	.2	.2	.2
27	5.6	61	47	28	765	319	41	3.2	5.6	.5	.2	.2
28	5.6	68	54	28	664	334	38	3.2	4.3	.3	.2	.2
29	5.6	58	68	28	------	386	35	3.2	3.2	.2	.2	.2
30	7.0	58	75	25	------	356	66	2.3	1.3	.2	.2	.2
31	5.6	------	82	22	------	284	------	2.3	------	.2	.2	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7.0	0.2	2.44	0.018	0.02
November	593	5.6	119	.856	.96
December	756	16	234	1.68	1.94
January	1,580	22	503	3.62	4.17
February	774	19	226	1.63	1.70
March	783	64	294	2.12	2.44
April	756	35	224	1.61	1.80
May	185	2.3	17.5	.126	.15
June	16	1.3	6.16	.044	.05
July	5.0	.2	1.44	.010	.01
August	.2	.2	.200	.001	.001
September	.2	.2	.200	.001	.001
The year	1,580	.2	136	.978	13.24

MEANDER CREEK AT MINERAL RIDGE, OHIO

LOCATION.—Water-stage recorder in T. 3 N., R. 3 W., Trumbull County, three-eighths mile above highway bridge 1 mile northwest of Mineral Ridge. Zero of gage 854.81 feet above mean sea level.

DRAINAGE AREA.—84.9 square miles.

RECORDS AVAILABLE.—August, 1929, to September, 1930.

EXTREMES.—Maximum discharge during period of record, 960 second-feet Jan. 14, 15, 1930 (gage height, 5.3 feet); minimum, 1.0 second-foot May 29, 1930 (gage height, 1.23 feet).

REMARKS.—Records good except those between 50 and 150 second-feet, which are fair. Flow regulated by storage above Mineral Ridge Dam. Results of some discharge measurements furnished by Mahoning Valley Sanitary District.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	7.5		278	12	139	41	38	5.9	3.2	1.8	3.0
2	6.1	32		306	14	122	167	70	5.7	3.6	1.8	3.7
3	12	53	a20	320	21	99	95	66	5.0	4.3	1.6	3.6
4	24	21		306	49	73	47	79	4.6	3.4	1.6	3.1
5	12	24		292	76	71	32	63	4.5	3.2	1.6	2.5
6	8.0	9.2	9.7	207	54	138	26	67	4.8	3.6	1.6	2.1
7	7.0	10	15	218	38	191	113	64	4.6	6.8	1.5	2.1
8	6.1	8.6	96	292	29	665	314	75	4.5	4.6	1.5	2.7
9	5.2	7.5	138	306	34	665	99	66	4.1	3.6	1.5	2.8
10	5.0	7.2	76	320	35	426	47	64	6.8	2.7	1.5	2.4
11	4.6	14	43	320	33	114	32	63	24	2.4	1.5	2.1
12	4.5	14	33	320	30	130	12	30	27	2.0	1.4	2.0
13	4.8	12	97	351	156	130	27	12	15	2.6	1.4	1.9
14	5.0	35	102	581	194	123	16	6.8	7.5	3.7	1.5	1.9
15	5.0	174	106	960	65	58	9.8	4.6	5.7	3.2	1.5	2.0
16	5.0	107	106	910	59	42	13	4.5	5.2	3.0	1.6	2.5
17	5.0	57	106	860	25	38	33	7.9	5.7	2.5	1.7	4.6
18	5.0	192	106	760	20	114	71	20	7.4	2.2	1.8	6.1
19	5.0	239	106	620	26	207	80	26	13	2.0	1.8	4.5
20	4.6	265	78	222	45	92	121	25	9.7	2.0	1.8	3.2
21	5.0	369	76	32	60	55	9.4	31	6.8	1.9	2.9	2.7
22	6.5	455	74	29	48	39	5.0	20	5.4	2.0	3.4	2.4
23	10	402	72	38	41	29	5.0	10	4.6	2.1	4.3	2.1
24	16	320	72	24	52	26	5.0	26	4.5	2.4	5.7	2.1
25	12	186	78	22	359	53	5.0	8.8	4.1	2.1	5.0	2.7
26	12	37	72	21	710	234	4.5	5.9	4.6	2.0	3.7	5.2
27	10	28	70	20	710	100	4.1	5.5	5.0	2.6	3.0	8.3
28	8.6	40	66	19	532	72	5.0	1.6	4.5	2.8	2.5	6.1
29	7.2	29	143	20	------	92	4.6	1.6	3.9	2.8	2.2	4.3
30	6.3	a35	368	17	------	92	5.2	15	3.6	2.2	2.1	3.2
31	6.5	------	320	13	------	56	------	7.2	------	1.9	2.2	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	24	4.5	7.70	May	79	1.6	31.8
November	455	7.2	106	June	27	3.6	7.26
December	368	9.7	88.0	July	6.8	1.9	2.88
January	960	13	290	August	5.7	1.4	2.23
February	710	12	126	September	8.3	1.9	3.26
March	665	26	145				
April	314	4.1	48.3	The year	960	1.4	71.4

a Estimated.

LITTLE BEAVER CREEK BASIN

LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OHIO

LOCATION.—Water-stage recorder at Grimms Bridge, 4 miles above mouth and 4 miles northeast of East Liverpool, Columbiana County.

DRAINAGE AREA.—505 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 14,700 second-feet Feb. 26 (gage height, 13.14 feet); minimum, 12 second-feet Aug. 13 (gage height, 1.53 feet).

1915–1930: Maximum discharge, 18,200 second-feet Feb. 26, 1929 (gage height, 14.4 feet); minimum, 12 second-feet Aug. 22, 26, 1918, Aug. 13, 1930; minimum gage height, 1.53 feet Aug. 13, 1930.

Highest flood known reached gage height of about 20 feet.

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

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	164	a 230	819	a 540	a 2,450	a845	772	129	51	18	27
2	357	270	a 200	2,460	598	a 1,980	a 1,310	395	116	45	16	30
3	1,040	462	a 190	3,430	795	a 1,590	a 1,100	267	106	46	16	32
4	442	442	a 180	2,140	983	a 1,310	a795	230	94	45	15	29
5	245	344	a 190	1,170	a 1,020	a 1,070	a620	215	83	42	14	24
6	182	281	a 220	983	a 880	a 1,010	a620	375	81	40	14	24
7	152	238	a 320	870	a 750	a 1,840	a 1,200	575	77	37	14	22
8	126	208	a 740	1,180	a 640	a 4,600	a 1,590	328	75	34	15	26
9	112	182	a 670	2,650	a 580	a 3,070	a 1,240	240	72	27	16	27
10	100	170	a 500	2,550	a 520	a 2,250	a870	200	138	24	16	28
11	92	218	a 412	1,540	a 480	a 1,590	a 670	172	335	21	15	26
12	90	218	344	2,180	a 1,000	a 1,310	575	168	221	20	13	27
13	96	220	891	5,350	a 2,500	a 1,140	506	190	140	24	13	28
14	96	1,330	1,940	5,430	a 1,780	a980	458	178	108	33	14	25
15	91	1,310	1,340	a 2,750	a 1,000	a870	420	205	87	31	15	20
16	83	795	898	a 1,950	a 680	a 770	409	195	78	31	14	25
17	79	1,090	1,200	a 1,500	a 600	a 670	575	178	102	30	17	24
18	72	6,620	2,250	a 1,200	a 540	a 770	645	156	94	28	19	26
19	68	4,250	3,140	a 920	a 490	a 1,310	745	402	91	25	17	27
20	68	2,100	2,260	a 800	a 440	a 1,140	552	1,250	77	23	18	24
21	63	1,200	a 1,010	a 750	a 420	a845	450	598	70	21	18	22
22	88	820	a 620	a 710	a 400	a 645	435	385	63	24	24	19
23	336	598	a 550	a 675	a 450	a 490	395	287	55	32	26	20
24	250	490	a 502	a 640	a 925	a 466	351	238	70	28	34	28
25	218	a 430	a 462	a 610	a 6,070	a 620	325	198	91	24	49	40
26	198	a 350	a 450	a 590	a 10,600	a 770	298	168	114	22	50	45
27	170	a 330	446	a 570	a 4,910	a 670	267	150	111	24	48	45
28	148	a 320	482	a 560	a 3,190	a 695	250	148	79	24	38	45
29	127	a 250	474	a 550	-------	a 1,170	252	154	64	23	32	37
30	126	a 240	450	a 545	-------	a 1,140	242	150	54	21	29	31
31	152	-------	454	a 540	-------	a820	-------	138	-------	19	26	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,040	63	179	0.354	0.41
November	6,620	164	865	1.71	1.91
December	3,140	180	775	1.53	1.76
January	5,430	540	1,570	3.11	3.59
February	10,600	400	1,560	3.09	3.22
March	4,600	466	1,290	2.55	2.94
April	1,590	242	634	1.26	1.41
May	1,250	138	300	.594	.68
June	335	54	102	.202	.23
July	51	19	29.6	.057	.07
August	50	13	22.0	.044	.05
September	45	19	28.4	.056	.06
The year	10,600	13	608	1.20	16.33

a Estimated.

YELLOW CREEK BASIN

YELLOW CREEK AT HAMMONDSVILLE, OHIO

LOCATION.—Tape gage on highway bridge one-fifth mile southwest of Hammondsville, Jefferson County, and 1,000 feet above North Fork.

DRAINAGE AREA.—169 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,280 second-feet Nov. 18 (gage height, 10.93 feet); minimum, 0.3 second-foot Aug. 20, 22 (gage height, 2.26 feet).

1915–1930: Maximum discharge, 7,710 second-feet June 17, 1920 (gage height, 13.2 feet); minimum, that of Aug. 20, 22, 1930.

Highest known flood reached stage of about 16 feet.

REMARKS.—Records good except those for periods of ice effect, Nov. 30 to Dec. 6, Dec. 21, Feb. 7–10, 16, and those estimated, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	118	163	312	e 128	502	246	62	38	18	2.2	1.3
2	137	210	157	775	e 130	502	502	60	33	17	1.7	1.1
3	595	525	150	620	e 400	332	332	55	27	11	1.3	1.0
4	286	412	143	525	620	312	273	44	24	8.3	1.1	1.6
5	178	306	136	416	670	332	239	44	19	5.5	.9	1.6
6	137	207	130	374	480	374	246	162	30	6.1	1.3	1.2
7	91	164	273	332	340	525	312	134	49	4.0	1.3	1.3
8	57	144	265	394	285	1,710	312	104	31	3.7	1.3	1.2
9	47	118	200	480	250	885	262	83	23	5.5	1.6	1.0
10	39	99	181	e 510	220	620	235	72	72	3.7	1.3	.9
11	48	147	165	e 400	204	570	221	55	128	3.4	1.1	.7
12	47	105	168	e 1,110	292	502	207	62	44	2.8	.9	.7
13	51	108	243	e 3,740	458	416	171	55	31	3.2	1.0	.5
14	45	286	312	e 2,650	394	312	159	83	26	3.0	1.3	.5
15	39	548	394	e 1,290	292	269	143	91	19	3.0	1.3	.5
16	36	348	480	e 720	200	239	159	85	19	2.6	1.0	1.8
17	32	1,170	670	e 500	174	232	146	72	31	2.4	.9	6.8
18	30	4,830	830	e 350	171	224	165	122	33	2.6	.7	3.0
19	26	1,290	775	e 310	162	232	152	458	30	2.6	.5	2.0
20	23	720	670	e 265	149	197	134	218	26	2.6	.4	1.6
21	18	502	481	e 230	134	171	122	146	18	2.8	.4	1.0
22	108	353	292	e 215	122	131	134	107	15	30	.4	.7
23	286	312	273	e 205	128	137	110	96	13	21	1.0	.9
24	327	265	250	e 195	197	149	107	88	15	9.1	.9	.9
25	259	228	e 230	e 180	1,830	178	104	75	42	5.5	.8	1.1
26	218	214	e 220	e 170	3,180	239	91	68	36	3.7	1.3	1.1
27	150	207	e 215	e 160	1,350	204	83	62	49	11	1.6	1.1
28	121	214	e 230	e 150	670	210	72	72	27	6.8	1.4	.9
29	99	174	214	e 140	-------	312	78	62	17	4.4	1.8	1.0
30	93	170	194	e 135	-------	312	75	51	11	3.4	1.4	1.3
31	121	-------	207	e 133	-------	254	-------	44	-------	2.6	1.1	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	595	18	122	0.722	0.83
November	4,830	99	483	2.66	3.19
December	830	130	300	1.78	2.05
January	3,740	133	580	3.43	3.95
February	3,180	122	487	2.88	3.00
March	1,710	131	374	2.21	2.55
April	502	72	186	1.10	1.23
May	458	44	96.5	.571	.66
June	128	11	32.5	.192	.21
July	30	2.4	6.82	.040	.05
August	2.2	.4	1.14	.007	.01
September	6.8	.5	1.34	.008	.01
The year	4,830	.4	221	1.31	17.74

e Estimated.

MIDDLE ISLAND CREEK BASIN

MIDDLE ISLAND CREEK AT LITTLE, W. VA.

LOCATION.—Chain gage at highway bridge at Little, Tyler County.
DRAINAGE AREA.—458 square miles.
RECORDS AVAILABLE.—May, 1915, to September, 1922; October, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 9,300 second-feet Nov. 18 (gage height, 13.61 feet); no flow Sept. 1–30.
1915–1922, 1928–1930: Maximum discharge, 18,200 second-feet Jan. 22, 1917 (gage height, 22.22 feet); possibly no flow part of 1922 and Sept. 1–30, 1930.
Highest known stage, about 33.5 feet during August, 1875.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	36	176	258	449	330	680	286	58	11	5.4	
2	1,850	278	173	925	266	960	2,390	52	10	5.0	
3	7,500	995	168	995	750	1,320	1,400	42	8.4	4.3	
4	1,620	2,720	138	1,030	1,400	995	890	39	6.4	3.2	
5	820	715	130	645	7,000	820	610	39	6.1	3.0	
6	388	352	128	484	2,150	1,480	442	39	6.4	3.0	
7	232	229	173	346	925	2,970	382	39	5.0	3.2	
8	176	188	414	315	624	6,900	582	37	5.0	2.8	
9	130	148	470	491	400	3,140	631	28	6.4	2.4	
10	98	123	320	561	995	1,480	449	26	8.4	2.4	
11	74	111	258	519	1,100	1,480	330	24	7.3	2.2	
12	64	106	226	505	638	2,630	278	23	5.7	1.8	
13	52	98	270	659	568	1,250	236	21	10	1.8	
14	46	222	4,230	1,030	715	750	203	27	9.4	1.8	
15	40	3,580	1,620	820	638	484	179	47	8.4	1.8	
16	39	1,850	820	589	421	364	165	64	8.4		0.2
17	34	3,580	526	388	352	300	156	156	7.3		
18	28	9,100	890	300	358	2,000	138	116	7.3		
19	26	3,220	855	215	340	6,130	162	85	20		
20	24	890	638	229	300	1,850	162	104	29		
21	24	659	340	173	258	855	130	162	27		
22	106	435	246	130	229	547	165	106	20		
23	1,550	320	232	140	212	370	140	76	17		
24	491	258	215	185	270	295	120	52	15	.5	
25	258	229	246	125	2,720	270	102	48	13		
26	188	185	194	135	4,140	715	91	49	12		
27	148	185	254	98	3,580	820	80	35	11		
28	123	250	3,580	140	1,100	645	71	28	8.4		
29	98	376	2,970	925	-------	666	64	23	5.7		
30	89	352	1,180	995	-------	533	61	19	5.0		
31	113	-------	890	505	-------	382	-------	15	-------		

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,500	24	531	1.16	1.34
November	9,100	98	1,060	2.31	2.58
December	4,230	128	744	1.62	1.87
January	1,030	98	485	1.06	1.22
February	7,000	212	1,170	2.55	2.66
March	6,900	270	1,420	3.10	3.57
April	2,390	61	370	.808	.90
May	162	15	54.2	.118	.14
June	29	5.0	10.7	.023	.03
July	5.4	----------	1.68	.0037	.004
August	----------	----------	0.20	.00044	.0005
The year	9,100	0	484	1.06	14.31

NOTE.—No flow in September.

LITTLE MUSKINGUM RIVER BASIN

LITTLE MUSKINGUM RIVER AT FAY, OHIO

LOCATION.—Staff gage in SE. ¼ sec. 10, T. 3 N., R. 7 W., 300 feet above Buckeye Pipe Line Co.'s pumping station and 1 mile northwest of Fay. Zero of gage 612. 71 feet above mean sea level.

DRAINAGE AREA.—259 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1922; October, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,120 second-feet Nov. 18 (gage height, 13.8 feet); minimum, 0.02 second-foot Aug. 11–14; minimum gage height, 0.16 foot Aug. 13.

1915–1922, 1925–1930: Maximum stage, 22.5 feet Nov. 27, 1919 (discharge not determined); minimum discharge, that of Aug. 11–14, 1930. Highest flood known reached stage of about 23 feet.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	304	159	930	144	357	215	52	12	5.6	0.05	4.0
2	460	372	144	895	218	460	895	47	12	5.1	.03	4.8
3	3,120	344	116	860	400	790	895	43	11	85	.03	3.3
4	460	640	103	825	1,140	640	670	43	10	29	.03	2.3
5	254	550	96	490	3,210	550	343	39	10	15	.03	1.7
6	206	430	116	344	1,140	640	288	36	9.2	12	.03	1.4
7	152	291	116	291	550	1,350	288	36	8.5	7.9	.03	1.2
8	110	218	130	278	460	3,470	315	36	7.9	5.6	.03	1.0
9	84	152	144	930	344	1,380	263	33	7.0	4.3	.03	.9
10	60	110	159	760	610	760	215	31	7.0	3.5	.03	.7
11	47	103	159	344	372	730	177	26	5.6	2.6	.02	.6
12	37	103	186	241	304	930	161	23	5.6	2.1	.02	1.0
13	31	110	520	344	730	670	146	20	5.1	1.9	.02	1.6
14	27	610	2,840	1,280	730	490	122	23	3.5	1.4	.02	1.6
15	23	3,640	1,460	670	550	357	118	23	3.0	1.6	.1	1.2
16	23	2,320	610	490	430	315	104	23	2.1	1.4	.1	1.0
17	23	1,520	460	372	316	263	98	26	3.0	1.0	.2	.9
18	21	4,980	860	344	241	1,000	91	27	3.5	.9	.2	.6
19	19	2,530	1,920	316	230	2,890	91	29	3.0	.8	.1	.5
20	16	930	1,180	241	218	930	91	29	3.0	.7	.1	.4
21	19	580	610	176	186	580	85	33	2.1	.6	.2	.3
22	430	400	490	159	144	430	104	31	2.1	.5	.3	.3
23	1,640	330	400	159	137	315	125	27	2.1	.5	1.2	.3
24	490	266	291	144	230	263	104	25	2.1	.4	1.6	1.2
25	430	195	195	144	1,880	238	91	26	2.1	.3	1.6	12
26	330	159	176	130	3,520	263	79	23	2.1	.3	1.6	7.0
27	241	144	400	130	2,530	263	70	21	2.6	.3	1.2	5.9
28	159	152	1,210	144	610	288	62	19	10	.3	1.0	5.1
29	123	163	965	159	------	276	57	17	9.2	.3	1.2	3.0
30	110	176	670	159	------	288	55	15	8.5	.2	1.6	2.3
31	254	------	760	159	------	276	------	13	------	.1	1.9	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,120	13	304	1.17	1.35
November	4,980	103	761	2.94	3.28
December	2,840	96	569	2.20	2.54
January	1,280	130	416	1.61	1.86
February	3,520	137	770	2.97	3.09
March	3,470	238	724	2.80	3.23
April	895	55	214	.826	.92
May	52	13	28.9	.112	.13
June	12	2.1	5.83	.023	.03
July	85	.1	6.17	.024	.03
August	1.9	.02	.471	.0018	.002
September	12	.3	2.27	.0088	.01
The year	4,980	.02	314	1.21	16.47

MUSKINGUM RIVER BASIN

TUSCARAWAS RIVER AT CLINTON, OHIO

LOCATION.—Water-stage recorder in NW. ¼ sec. 32, T. 14 N., R. 10 W., 100 feet below highway bridge at Clinton and 1 mile above mouth of Chippewa Creek. Chain gage on highway bridge prior to July 24, 1930.

DRAINAGE AREA.—165 square miles.

RECORDS AVAILABLE.—May, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, 1,720 second-feet Jan. 14 (gage height, 11.3 feet); minimum, 25 second-feet Sept. 4.

1926–1930: Maximum discharge, 2,020 second-feet Feb. 27, 1929 (gage height, 12.4 feet); minimum, 10 second-feet Nov. 6, 1928.

REMARKS.—Records excellent except those for periods of high water, which are fair. Ohio Canal diverts small amount of water from Tuscarawas River at Portage Lakes, 3 miles south of Akron. Part of diverted water flows into Cuyahoga River Basin and part flows past this gaging station. Flow slightly regulated at headwaters of this stream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	49	52	229	66	543	309	71	49	53	31	31
2	49	146	49	763	76	441	407	66	49	49	31	33
3	47	140	47	1,030	104	293	293	62	57	46	31	29
4	59	118	49	1,010	139	184	213	57	53	43	31	31
5	52	158	52	823	139	198	152	53	53	43	31	31
6	47	134	56	579	115	293	229	87	49	40	33	31
7	45	79	72	475	104	475	357	66	49	43	33	29
8	47	54	158	803	92	579	341	53	46	46	35	33
9	45	49	309	1,260	82	543	261	53	46	46	33	33
10	49	76	82	1,440	92	407	213	49	57	49	31	33
11	52	94	72	1,190	82	213	184	53	57	43	31	33
12	47	82	90	1,140	127	198	145	57	49	37	31	33
13	45	79	407	1,410	441	139	121	62	53	43	31	31
14	45	229	633	1,700	373	127	109	76	43	49	33	31
15	43	171	579	1,540	184	104	109	76	43	46	33	31
16	47	134	424	1,120	198	92	145	71	57	46	33	37
17	41	184	526	763	171	92	293	57	53	35	33	37
18	39	561	743	509	92	171	293	53	66	37	33	35
19	39	687	803	390	104	293	198	66	57	37	33	33
20	39	526	615	325	171	171	152	82	49	33	35	33
21	39	277	424	357	213	145	127	82	43	31	37	33
22	86	128	146	184	184	109	139	62	46	37	35	33
23	134	86	92	158	229	98	115	62	49	37	35	33
24	98	86	96	133	458	121	109	57	53	37	33	33
25	184	90	82	121	669	357	98	62	53	33	33	37
26	146	82	72	109	843	723	82	57	57	33	35	35
27	86	79	72	98	923	687	71	57	49	35	33	33
28	54	72	79	92	687	579	82	57	43	33	33	31
29	54	59	79	87	------	407	87	57	40	33	31	31
30	45	52	103	82	------	357	76	49	40	33	31	33
31	47	------	134	76	------	261	------	49	------	33	33	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	184	39	61.3	May	87	49	62.0
November	687	49	150	June	66	40	50.3
December	803	47	232	July	53	31	40.0
January	1,700	76	645	August	37	31	32.7
February	923	66	256	September	37	29	32.7
March	723	92	303				
April	407	71	184	The year	1,700	29	171

TUSCARAWAS RIVER NEAR DOVER, OHIO

LOCATION.—Water-stage recorder in T. 9 N., R. 2 W., at highway bridge 2½ miles northeast of Dover and 3 miles above mouth of Sugar Creek. Zero of gage 861.51 feet above mean sea level. Chain gage on bridge prior to Aug. 30, 1930.

DRAINAGE AREA.—1,400 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1930.

EXTREMES.—Maximum discharge during year, 16,700 second-feet Feb. 27 (gage height, 11.74 feet); minimum mean daily discharge, 68 second-feet Aug. 5 (water held back when gates of Ohio Power Co.'s plant 3 miles downstream were closed); minimum gage height, −0.06 foot Aug. 16.

1923–1930: Maximum discharge, 20,700 second-feet Feb. 27, 1929 (gage height, 13.3 feet); minimum daily discharge, that of Aug. 5 1930.

REMARKS.—Records good except those for extremely low and high stages, for periods of ice effect, Dec. 1–3, 23–26, Jan. 20 to Feb. 3, and for estimated period July 19, 20, which are fair. Small amount of water diverted into Cuyahoga River Basin by Ohio Canal at Portage Lakes. No appreciable flow in Ohio Canal at this gaging station.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	348	840		1,880		5,020	1,400	800	405	296	208	210
2	348	1,130	900	4,890	1,440	4,130	2,500	720	375	296	208	210
3	405	2,180		5,160		3,530	2,610	640	375	296	208	210
4	880	2,080	840	4,760	2,610	2,720	2,080	570	375	296	206	210
5	760	1,580	880	4,370	1,680	2,610	1,680	570	375	296	68	210
6	605	1,220	960	3,650	1,580	3,050	1,580	720	375	254	124	210
7	535	1,040	1,130	3,530	1,400	2,940	2,080	800	375	254	210	207
8	500	840	1,780	4,010	1,400	6,320	3,770	760	375	254	208	205
9	375	760	1,780	7,410	1,220	7,090	3,050	680	348	273	207	207
10	348	680	1,310	7,910	1,220	4,760	1,980	605	375	254	207	209
11	320	840	1,220	6,320	1,220	3,530	1,680	535	435	254	205	209
12	348	1,220	1,080	6,320	1,490	3,290	1,490	500	435	254	205	209
13	500	920	1,780	8,960	2,830	2,830	1,400	500	405	254	201	190
14	320	3,050	4,760	12,800	3,170	2,180	1,310	605	405	273	196	207
15	320	3,530	4,250	16,400	2,180	1,880	1,490	680	320	273	195	205
16	320	2,830	3,530	10,700	1,980	1,680	1,220	640	296	254	194	205
17	320	2,830	2,720	7,090	1,780	1,580	1,400	605	435	254	193	254
18	296	6,930	4,250	4,010	1,400	1,780	1,780	535	435	254	196	234
19	273	10,300	5,720	3,290	1,310	1,980	1,580	605	500	240	197	218
20	296	8,780	5,160		1,400	2,180	1,220	1,680	435		198	207
21	296	4,890	3,530		1,780	1,780	1,130	1,000	320	218	200	203
22	405	2,940	2,390	2,200	1,580	1,490	1,130	760	320	234	200	207
23	1,580	1,980			1,680	1,310	1,130	680	296	254	234	204
24	2,720	1,580			2,500	1,310	1,040	640	348	218	273	204
25	2,080	1,490	1,620		6,470	1,580	1,000	535	1,000	234	234	210
26	1,580	1,400			12,400	2,940	1,000	535	605	218	218	296
27	1,130	1,310	1,310		16,400	2,830	840	500	468	234	234	296
28	880	1,400	1,310	1,460	9,520	2,610	800	435	375	234	254	254
29	720	1,400	1,400		-------	2,610	800	468	375	209	234	211
30	680	1,130	1,400		-------	2,080	800	468	320	209	210	211
31	640	-------	1,400		-------	1,980	-------	435	-------	209	210	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,720	273	682	0.487	0.56
November	10,300	680	2,440	1.74	1.94
December	5,720	840	2,100	1.50	1.73
January	16,400	----------	4,690	3.35	3.86
February	16,400	1,220	3,090	2.21	2.30
March	7,090	1,310	2,830	2.02	2.33
April	3,770	800	1,570	1.12	1.25
May	1,680	435	652	.466	.54
June	1,000	296	409	.292	.33
July	296	209	251	.179	.21
August	273	68	204	.146	.17
September	296	190	217	.155	.17
The year	16,400	68	1,590	1.14	15.39

TUSCARAWAS RIVER AT NEWCOMERSTOWN, OHIO

LOCATION.—Water-stage recorder in T. 5 N., R. 3 W., at highway bridge three-fourths mile east of Newcomerstown. Zero of gage 785.03 feet above mean sea level.

DRAINAGE AREA.—2,430 square miles.

RECORDS AVAILABLE.—September, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 23,200 second-feet Jan. 16 (gage height, 11.4 feet); minimum, 120 second-feet Aug. 7 (gage height, 0.35 foot).

1921–1930: Maximum discharge, 29,400 second-feet Feb. 28, 1929; minimum, that of Aug. 7, 1930.

Flood of March, 1913, reached stage of about 21.5 feet (discharge estimated at 130,000 second-feet).

REMARKS.—Records good except those for periods of ice effect, Nov. 31 to Dec. 6, Jan. 20–31, and when counterweight was caught July 1–22, which are fair. Small amount of water diverted into Cuyahoga River Basin by Ohio Canal at Portage Lakes.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	624	1,330		3,120	1,670	15,000	3,400	1,270	655		245	257
2	580	1,770		6,480	1,610	9,500	3,400	1,230	611		231	251
3	624	3,870	1,200	10,400	1,860	7,510	4,820	1,110	577	350	231	251
4	1,500	4,160		12,300	2,590	5,820	4,160	1,010	553		226	245
5	1,710	3,350		10,200	3,120	5,020	3,300	958	536		222	240
6	1,360	2,500	1,200	7,070	3,210	5,220	2,760	990	520		170	231
7	950	1,930	1,340	5,420	2,940	5,620	2,850	1,300	512		222	231
8	759	1,640	1,900	5,420	2,590	9,050	4,820	1,320	512	300	236	236
9	669	1,440	3,210	9,730	2,250	12,800	5,020	1,070	512		226	217
10	580	1,290	2,760	13,500	2,090	11,600	3,680	936	505		217	222
11	540	1,270	2,170	14,000	2,250	8,390	2,940	852	528		222	226
12	540	1,540	2,010	11,800	2,010	6,640	2,590	812	586		217	226
13	540	1,610	2,950	13,500	2,930	5,620	2,340	773	586	290	212	226
14	540	3,430	8,170	17,500	6,220	4,540	2,250	812	536		226	203
15	540	5,820	9,730	22,100	5,020	3,680	2,420	904	490		212	222
16	500	5,820	8,170	22,900	3,300	3,120	2,170	947	452		212	245
17	486	5,220	6,640	18,400	2,500	2,940	2,170	904	482		212	222
18	478	10,400	7,070	10,900	2,590	2,850	2,680	862	512	280	212	263
19	457	14,700	9,730	5,880	2,340	3,780	2,680	904	586		212	286
20	435	18,500	10,400		2,420	4,250	2,340	1,270	594		212	263
21	435	16,000	7,730		2,590	3,400	1,930	1,710	553	270	217	236
22	565	9,730	5,020	2,900	2,680	2,850	1,860	1,320	482		231	231
23	2,780	5,620	3,580		2,500	2,500	1,860	1,030	444	257	236	231
24	4,280	3,490	2,760		2,850	2,250	1,710	893	422	286	269	226
25	4,060	2,760	2,590		6,020	2,340	1,610	832	793	263	304	226
26	3,030	2,420	2,500		12,700	3,580	1,540	754	1,080	263	274	263
27	2,340	2,250	2,420		19,400	4,920	1,420	708	672	269	245	324
28	1,720	2,340	2,340	1,900	22,100	4,160	1,320	681	655	286	263	317
29	1,380	2,420	2,590			4,060	1,270	681	520	263	286	298
30	1,230	1,700	2,590			4,440	1,270	699	467	245	263	240
31	1,190		2,590			4,060		681		251	257	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,280	435	1,210	0.498	0.57
November	18,500	1,270	4,680	1.93	2.15
December	10,400		3,880	1.60	1.84
January	22,900		8,050	3.31	3.82
February	22,100	1,610	4,510	1.86	1.94
March	15,000	2,250	5,530	2.28	2.63
April	5,020	1,270	2,620	1.08	1.20
May	1,710	681	975	.401	.46
June	1,080	422	564	.232	.26
July		245	291	.120	.14
August	304	170	233	.096	.11
September	324	203	245	.101	.11
The year	22,900	170	2,720	1.12	15.23

MUSKINGUM RIVER AT DRESDEN, OHIO

LOCATION.—Water-stage recorder at highway bridge half a mile east of Dresden, Muskingum County, and half a mile below Wakatomika Creek. Zero of gage 693.15 feet above mean sea level.

DRAINAGE AREA.—5,980 square miles.

RECORDS AVAILABLE.—September, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 50,000 second-feet Jan. 15 (gage height, 24.3 feet); minimum, 410 second-feet Aug. 18 (gage height, 3.65 feet).

1921–1930: Maximum discharge, 55,500 second-feet Mar. 23, 1927 (gage height, 26.0 feet); minimum, 335 second-feet June 25, 1925 (gage height, 2.73 feet).

Maximum known stage, 46.0 feet March, 1913 (discharge, estimated, 160,000 second-feet).

REMARKS.—Records good except those for periods of ice effect, Nov. 30 to Dec. 7, Jan. 20–31, which are fair. Occasionally slight regulation at Dam 11, 7 miles below gage.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,230	2,590		9,300	5,130	36,200	10,100	3,420	1,570	1,060	498	584
2	1,180	3,280		16,300	4,980	28,200	9,680	3,280	1,570	960	506	620
3	1,120	5,910		26,100	5,280	20,200	11,500	3,140	1,450	960	474	665
4	1,230	7,630	3,400	29,800	6,230	15,600	11,700	3,000	1,400	910	450	593
5	2,640	7,090		26,500	7,990	13,000	9,870	2,720	1,340	910	450	530
6	2,720	5,910		19,900	8,730	12,400	8,170	2,720	1,280	860	450	506
7	2,200	4,680		15,300	8,920	13,000	7,450	2,860	1,230	860	458	474
8	1,690	3,840	3,980	16,300	8,170	20,200	8,540	3,000	1,230	810	434	514
9	1,450	3,280	7,090	28,600	6,910	26,500	11,000	2,860	1,230	810	514	506
10	1,280	3,000	7,630	38,400	6,400	25,700	9,300	2,590	1,230	760	458	474
11	1,180	2,720	6,230	39,600	6,070	22,500	7,630	2,460	1,230	760	466	458
12	1,120	3,000	5,590	36,200	6,070	18,400	6,740	2,330	1,230	760	434	450
13	1,120	3,700	5,980	35,300	7,990	15,600	6,070	2,200	1,230	760	434	450
14	1,060	4,880	17,100	43,500	15,400	12,600	5,910	2,200	1,230	665	450	458
15	1,060	10,100	22,500	49,000	14,500	10,100	5,750	2,200	1,180	665	442	474
16	1,060	11,900	20,000	48,700	10,800	8,540	5,750	2,200	1,120	710	426	482
17	1,010	12,100	17,400	44,100	8,170	7,810	5,430	2,330	1,120	710	418	566
18	1,010	18,100	19,100	35,600	7,450	7,450	6,070	2,200	1,230	665	426	593
19	960	23,600	25,900	21,000	7,090	8,170	7,090	2,200	1,400	620	426	602
20	960	24,500	26,200		6,740	10,100	6,740	2,460	1,450	611	442	566
21	910	26,000	20,200		7,090	9,490	5,750	2,860	1,400	611	450	514
22	1,120	24,500	13,900	8,300	7,270	8,170	5,280	3,140	1,280	593	482	466
23	2,020	17,700	10,600		7,090	6,910	4,980	2,720	1,120	602	498	450
24	6,430	12,800	8,540		8,170	6,230	4,680	2,330	1,120	584	539	474
25	7,450	8,270	7,450		14,100	6,070	4,400	2,070	1,120	575	602	482
26	6,230	6,230	7,090		24,000	11,000	4,260	1,940	1,810	557	620	575
27	5,130	5,590	6,740		37,700	14,200	3,980	1,810	1,940	530	602	760
28	4,260	5,430	6,570	6,000	39,300	12,600	3,840	1,810	1,570	584	539	760
29	3,420	5,590	6,910		-------	11,700	3,560	1,810	1,450	665	514	665
30	2,860	4,830	7,450		-------	12,100	3,420	1,690	1,230	584	530	602
31	2,590	-------	7,630		-------	11,700	-------	1,690	-------	514	530	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,450	910	2,250	0.376	0.43
November	26,000	2,590	9,290	1.55	1.73
December	26,200	----------	10,100	1.69	1.95
January	49,000	----------	21,500	3.60	4.15
February	39,300	4,980	10,800	1.81	1.88
March	36,200	6,070	14,300	2.39	2.76
April	11,700	3,420	6,820	1.14	1.27
May	3,420	1,690	2,460	.411	.47
June	1,940	1,120	1,330	.222	.25
July	1,060	514	717	.120	.14
August	620	418	483	.081	.09
September	760	450	544	.091	.10
The year	49,000	418	6,700	1.12	15.22

MUSKINGUM RIVER AT McCONNELSVILLE, OHIO

LOCATION.—Water-stage recorder in SE. ¼ sec. 11, T. 10 N., R. 12 W., above Dam 7, at McConnelsville. Zero of gage at elevation of crest of dam, 650.31 feet above mean sea level.

DRAINAGE AREA.—7,410 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, about 64,600 second-feet Jan. 15 (gage height, 10.7 feet); minimum, about 218 second-feet, Aug. 25 (gage height, −0.65 foot).

1921–1930: Maximum discharge, about 76,600 second-feet Apr. 16, 1922 (gage height, 11.9 feet); minimum, that of Aug. 25, 1930.

400 second-feet in August, when water was below crest of dam.

Flood of Mar. 27, 1913, reached stage corresponding to 33.5 feet (discharge, estimated, 200,000 second-feet).

REMARKS.—Records good except those affected by ice, Jan. 20–26, and those for periods when stage was below intake, Aug. 9–11, 17–19, 23–26, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,410	3,020	4,040	11,100	5,600	41,400	11,300	3,840	1,790	1,160	595	744
2	1,410	4,590	4,040	17,200	5,600	35,000	12,200	3,690	1,670	1,010	501	622
3	1,410	7,380	4,040	27,800	5,950	23,600	12,200	3,540	1,550	940	494	744
4	1,320	8,960	3,590	31,600	7,000	17,700	12,600	3,400	1,530	906	568	744
5	1,600	7,760	3,440	28,500	9,700	14,800	11,300	3,120	1,440	855	613	631
6	2,610	6,640	3,740	16,700	9,700	13,500	9,300	3,120	1,440	855	529	568
7	2,350	5,280	4,040	16,700	9,700	14,800	8,500	3,120	1,370	838	508	543
8	1,890	4,340	4,640	17,200	8,900	29,200	8,500	3,120	1,330	838	455	622
9	1,690	3,740	7,000	35,900	7,700	34,200	10,500	3,120	1,330	757		631
10	1,500	3,160	8,160	45,200	7,350	28,500	10,100	2,840	1,290	757	420	586
11	1,410	3,160	7,000	45,200	6,650	25,000	8,500	2,570	1,270	744		529
12	1,320	2,880	6,280	42,400	6,650	20,500	7,350	2,570	1,270	604	622	543
13	1,320	3,740	9,630	47,200	9,700	16,700	6,650	2,440	1,250	465	487	522
14	1,240	7,380	20,500	56,600	16,700	14,000	6,300	2,300	1,250	770	480	480
15	1,240	15,700	24,300	63,600	15,800	11,300	6,300	2,300	1,160	692	465	550
16	1,240	14,300	21,100	61,600	12,200	9,700	6,300	2,440	1,120	622	455	631
17	1,240	17,200	18,200	53,800	9,300	8,500	5,950	2,440	1,140	640		613
18	1,130	31,600	19,900	43,000	8,100	8,500	6,300	2,440	1,220	666	420	586
19	1,070	29,200	30,000	25,600	7,700	9,300	7,350	2,440	1,400	613		550
20	1,050	25,600	30,000		7,350	10,100	7,700	2,700	1,460	595	536	613
21	1,100	25,600	22,400	10,000	7,350	10,500	6,650	2,980	1,400	653	522	653
22	1,410	24,300	16,200		7,700	8,900	5,950	3,400	1,270	653	480	631
23	3,300	18,200	12,500		7,700	7,700	5,600	3,120	1,120	595		666
24	5,770	13,400	9,800		8,930	7,000	5,270	2,700	1,080	595		640
25	7,760	9,380	8,560	6,500	17,200	7,000	4,950	2,300	1,050	604	400	586
26	7,000	7,000	7,760		29,200	9,700	4,630	2,170	1,320	577		515
27	5,600	6,280	7,380	6,650	42,400	14,000	4,310	2,040	1,920	568	653	770
28	4,640	6,280	7,760	7,000	44,300	13,500	4,310	2,040	1,550	622	613	838
29	3,740	5,940	8,160	6,650		13,000	4,000	1,920	1,350	640	568	804
30	3,300	5,280	8,560	5,950		13,000	3,840	1,790	1,510	622	550	770
31	3,160		9,380	5,950		12,600		1,790		577	515	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,760	1,050	2,460	0.332	0.38
November	31,600	2,880	10,900	1.47	1.64
December	30,000	3,440	11,400	1.54	1.78
January	63,600	5,950	25,100	3.39	3.91
February	44,300	5,600	12,200	1.65	1.72
March	41,400	7,000	16,200	2.19	2.52
April	12,600	3,840	7,490	1.01	1.13
May	3,840	1,790	2,700	.364	.42
June	1,920	1,030	1,360	.184	.21
July	1,160	465	711	.096	.11
August	653		494	.067	.08
September	838	480	631	.085	.09
The year	63,600		7,630	1.03	13.99

SANDY CREEK AT SANDYVILLE, OHIO

LOCATION.—Water-stage recorder in sec. 8, T. 10 N., R. 1 W., 100 feet below highway bridge half a mile south of Sandyville. Prior to Sept. 19, 1930, chain gage on highway bridge.
DRAINAGE AREA.—481 square miles.
RECORDS AVAILABLE.—October, 1923, to September, 1930.
EXTREMES.—Maximum discharge during year, about 12,500 second-feet Feb. 26 (gage height, 11.8 feet); minimum, 41 second-feet Sept. 20, 22 (gage height, 1.24 feet).
1923–1930: Maximum discharge, about 15,300 second-feet Feb. 26, 1929; minimum, that of Sept. 20, 22, 1930.
REMARKS.—Records good except those for extremely high water, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	174	378	325	780	360	1,750	730	378	156	112	76	86
2	159	880	325	2,500	360	1,930	1,210	308	156	125	73	102
3	395	830	325	3,480	510	1,280	830	274	162	133	59	100
4	470	685	308	1,750	640	1,140	685	242	159	107	69	84
5	325	550	325	1,140	640	1,070	595	258	150	128	73	80
6	[a] 275	430	308	940	550	1,280	550	430	145	107	78	78
7	225	395	360	880	490	1,350	940	470	145	128	84	57
8	193	360	880	1,750	450	4,340	1,350	325	136	120	69	112
9	174	308	640	3,360	430	3,030	830	274	123	112	76	89
10	156	274	510	2,700	470	1,660	685	258	174	112	65	93
11	168	450	450	1,500	395	1,350	595	225	209	117	65	69
12	168	378	430	1,660	378	1,280	550	225	174	100	65	69
13	159	470	940	5,150	1,210	1,140	490	225	156	93	67	63
14	171	1,840	2,020	5,880	880	830	470	274	156	145	76	55
15	162	1,660	1,280	5,730	640	730	430	291	128	107	71	71
16	159	1,070	880	2,810	510	685	470	274	139	105	65	117
17	162	1,070	880	1,420	430	640	730	258	156	93	46	89
18	142	5,430	2,110	1,070	430	940	640	242	139	84	89	69
19	145	6,510	2,200	940	490	1,210	550	308	193	89	73	59
20	115	3,480	1,280	830	550	780	470	640	145	69	73	57
21	136	1,580	830	730	595	730	430	470	130	98	105	52
22	325	1,000	595	685	550	595	450	325	105	98	78	61
23	1,500	730	550	550	595	510	412	258	102	107	133	57
24	880	640	550	550	730	550	395	258	360	82	80	70
25	730	595	[a] 520	490	5,010	685	395	225	470	89	82	116
26	595	510	490	470	11,200	1,070	378	193	225	84	80	87
27	430	550	470	470	7,860	730	342	193	184	71	112	87
28	360	780	550	470	3,360	685	325	[a] 201	145	89	107	62
29	325	412	510	430	------	940	325	209	133	117	93	64
30	291	342	490	378	------	830	325	181	123	82	67	66
31	325	------	510	378	------	730	------	168	------	89	69	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,500	115	322	0.669	0.77
November	6,510	274	1,150	2.39	2.67
December	2,200	308	737	1.53	1.76
January	5,880	378	1,670	3.47	4.00
February	11,200	360	1,450	3.01	3.13
March	4,340	510	1,180	2.45	2.82
April	1,350	325	586	1.22	1.36
May	640	168	286	.595	.69
June	470	102	169	.351	.39
July	145	69	103	.214	.25
August	133	46	78.0	.162	.19
September	117	46	77.4	.161	.18
The year	11,200	46	646	1.34	18.21

[a] Interpolated.

NIMISHILLEN CREEK AT NORTH INDUSTRY, OHIO

LOCATION.—Water-stage recorder in SW. ¼ sec. 35, T. 10 N., R. 8 W., just below railroad bridge and 1 mile southeast of North Industry. Zero of gage 970.77 feet above mean sea level.

DRAINAGE AREA.—175 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, about 2,450 second-feet Feb. 26 (gage height, 6.9 feet); minimum, 4.2 second-feet June 30 (gage height, 0.80 foot).

1921–1930: Maximum discharge, about 4,000 second-feet Feb. 26, 1929 (gage height, 9.9 feet); minimum, that of June 30, 1930.

REMARKS.—Records fair. Slight regulation by steel mills at Canton, about 4 miles above gage.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	83	76	450	118	345	224	156	59	26	36	35
2	53	502	68	1,000	136	392	412	101	52	22	33	34
3	61	283	72	1,000	204	288	252	94	61	24	37	30
4	92	177	71	426	254	268	192	82	55	23	32	27
5	58	121	70	268	256	276	156	90	50	31	38	30
6	51	102	77	250	204	370	165	160	50	32	36	24
7	49	86	105	304	174	478	482	109	49	31	40	42
8	46	79	290	816	156	1,140	520	92	40	36	46	34
9	49	74	200	1,030	142	533	276	76	36	38	40	28
10	48	90	140	701	158	348	211	74	60	30	42	27
11	50	139	124	342	134	328	170	69	49	33	34	26
12	51	146	131	742	160	318	141	70	40	36	40	26
13	56	260	534	1,580	518	304	132	72	34	49	38	24
14	54	544	729	1,320	300	211	128	106	38	33	39	26
15	50	374	366	865	180	184	132	98	33	26	40	59
16	49	207	249	449	116	166	170	78	70	28	34	79
17	46	500	296	296	120	176	330	70	46	26	31	30
18	42	1,560	727	240	117	399	276	69	55	27	36	26
19	42	822	669	212	134	418	204	102	58	26	34	24
20	40	432	325	200	196	256	152	120	35	25	32	24
21	48	319	145	200	231	224	147	84	34	24	46	25
22	322	208	140	194	204	172	157	67	30	40	34	28
23	493	153	130	170	230	146	143	64	29	34	75	37
24	200	131	123	151	401	157	137	68	287	32	40	38
25	219	118	118	147	1,120	250	130	59	174	30	36	74
26	140	108	116	130	1,850	386	119	54	44	35	33	46
27	94	126	126	137	838	240	109	61	30	34	31	36
28	79	150	141	142	426	238	114	65	27	37	31	23
29	70	106	140	126	------	332	119	68	24	35	31	24
30	68	80	141	118	------	324	127	67	24	36	29	25
31	73	------	158	118	------	221	------	61	------	34	37	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	493	40	91.9	0.525	0.61
November	1,560	74	269	1.54	1.72
December	729	68	219	1.25	1.44
January	1,580	118	456	2.61	3.01
February	1,850	116	324	1.85	1.93
March	1,140	146	319	1.82	2.10
April	520	109	201	1.15	1.28
May	160	54	84.1	.481	.55
June	287	24	55.8	.319	.36
July	49	22	31.4	.179	.21
August	75	29	37.5	.214	.25
September	79	23	33.7	.193	.22
The year	1,850	22	176	1.01	13.68

STILLWATER CREEK AT UHRICHSVILLE, OHIO

LOCATION.—Staff gage at waterworks pumping station 1 mile south of Uhrichsville and Dennison, Tuscarawas County.

DRAINAGE AREA.—367 square miles.

RECORDS AVAILABLE.—July, 1922, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,910 second-feet Nov. 20 (gage height, 9.9 feet); no flow July 31 to Sept. 30.

1922–1930: Maximum discharge, 7,430 second-feet Dec. 16, 1927 (gage height, 11.8 feet); minimum discharge, that of July 31 to Sept. 30, 1930; minimum gage height, −0.55 foot Aug. 21, 1930.

REMARKS.—Records good. Periods of ice effect Dec. 1–5, Jan. 25 to Feb. 1. Municipal water supply for Dennison and Uhrichsville diverted at gage not included in records except in part of monthly table. Gage-height record furnished by Dennison Water Supply Co.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
1	100	313		697	200	2,240	482	137	30	4.0
2	57	439		1,160	223	1,520	654	120	30	4.0
3	292	1,050	230	1,520	334	995	1,100	108	24	19
4	742	1,160		1,760	611	840	890	104	19	17
5	568	790		1,400	790	742	611	92	15	9.2
6	334	482	231	890	1,050	890	482	108	15	8.0
7	198	355	292	654	890	1,050	482	137	13	8.0
8	137	292	568	654	654	1,640	568	120	17	6.8
9	100	231	742	1,340	504	4,290	418	88	17	15
10	71	182	568	1,880	460	4,140	460	71	17	12
11	60	194	460	1,760	568	1,400	376	64	17	8.0
12	54	272	418	1,400	418	1,160	334	57	17	5.8
13	47	252	840	2,630	697	995	313	50	24	4.0
14	57	272	2,120	3,990	1,280	697	482	60	19	4.0
15	64	1,050	2,180	4,740	1,100	568	568	71	12	4.0
16	57	1,460	2,060	4,440	611	460	439	104	10	2.5
17	44	1,520	1,580	3,220	460	439	355	83	10	1.3
18	34	2,630	1,280	1,760	460	439	376	64	9.2	1.3
19	32	4,590	1,640	790	439	654	334	64	12	1.3
20	32	5,830	1,820	568	418	742	292	128	17	1.3
21	34	4,890	1,520	611	376	611	252	174	15	1.3
22	128	3,150	890	568	334	504	252	104	15	1.9
23	995	1,580	742	418	313	397	252	67	12	1.3
24	1,160	654	790	355	334	376	215	50	8.0	1.3
25	790	482	611		611	376	186	37	8.0	.6
26	482	397	568		1,700	482	186	34	8.0	.2
27	355	376	504	260	3,020	568	170	30	5.8	.2
28	252	439	525		2,960	482	153	30	4.0	.2
29	194	525	697		--------	568	145	34	4.0	.2
30	83	272	654		--------	654	145	34	3.2	.1
31	174	--------	611		--------	568	--------	34	--------	0

Month	Observed			Diversion (mean)	Corrected for diversion		Run-off in inches
	Maximum	Minimum	Mean		Mean	Per square mile	
October	1,160	32	249	2.90	252	0.687	0.79
November	5,830	182	1,200	2.85	1,200	3.27	3.65
December	2,180	----------	841	3.00	844	2.30	2.65
January	4,740	----------	1,320	2.93	1,320	3.60	4.15
February	3,020	200	779	2.91	782	2.13	2.22
March	4,290	376	1,020	2.83	1,020	2.78	3.21
April	1,100	145	399	2.78	402	1.10	1.23
May	174	30	79.3	2.88	82.2	.224	.26
June	30	3.2	14.2	2.74	16.9	.046	.05
July	19	0	4.64	2.88	7.52	.020	.02
August	0	0	0	2.85	2.85	.008	.009
September	0	0	0	2.65	2.65	.007	.008
The year	5,830	0	491	2.85	494	1.35	18.25

NOTE.—No flow in August and September. Record of total gallons pumped each month furnished by Dennison Water Supply Co.

MOHICAN RIVER AT GREER, OHIO

LOCATION.—Chain gage on highway bridge at Greer, Knox County. Zero of gage 872.91 feet above mean sea level.

DRAINAGE AREA.—942 square miles.

RECORDS AVAILABLE.—September, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 12,400 second-feet Jan. 13 (gage height, 10.9 feet); minimum, 102 second-feet Aug. 12, 13, 16, 20, 21 (gage height, 1.34 feet).

1921–1930: Maximum discharge, 15,400 second-feet Mar. 21, 1927 (gage height, 12.7 feet); minimum, 93 second-feet Sept. 12, 1925 (gage height, 1.29 feet).

Maximum stage known, 27.0 feet during flood of March, 1913 (discharge, estimated, 55,000 second-feet).

REMARKS.—Records good except those estimated because of ice effect, Nov. 30 to Dec. 8, Jan. 23 to Feb. 3, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	141	304		2,700		2,700	1,910	508	249	185	111	258
2	148	1,370		6,440	1,000	2,580	2,640	472	249	177	111	138
3	148	1,390		8,320		1,690	2,020	472	232	170	111	127
4	155	1,140		5,110	1,090	1,590	1,590	458	232	164	106	127
5	155	848	500	4,260	990	1,390	1,290	458	224	164	106	122
6	148	578		2,940	895	1,390	1,190	472	224	157	116	111
7	148	440		2,410	800	1,710	1,540	458	215	157	127	138
8	141	367	1,500	8,040	710	3,580	2,240	431	200	151	116	127
9	135	315	1,490	12,000	665	2,820	1,490	418	200	144	116	116
10	135	282	1,090	11,900	665	2,240	1,190	404	200	144	116	111
11	141	545	990	9,480	620	1,910	1,040	382	200	138	111	111
12	148	755	942	8,710	738	1,590	895	372	192	138	102	111
13	148	848	1,500	11,600	3,780	1,290	800	361	185	138	102	122
14	141	1,660	3,450	12,200	2,350	1,090	800	361	177	138	116	127
15	135	2,020	2,460	11,900	1,910	895	710	393	170	157	106	122
16	135	1,590	2,020	7,200	1,390	895	665	393	207	144	102	138
17	135	1,390	2,480	3,980	1,490	848	1,140	372	258	138	106	177
18	135	4,260	5,620	2,580	1,090	1,090	1,490	361	372	133	111	144
19	135	2,820	5,620	2,240	1,040	1,440	1,290	418	276	133	106	127
20	129	2,130	2,700	1,690	1,140	1,240	1,090	484	232	127	102	122
21	148	1,800	1,800	1,490	1,290	1,090	895	445	215	122	102	111
22	161	1,390	1,690	1,290	1,290	895	895	382	200	127	116	122
23	848	990	1,290		1,490	755	710	341	192	122	122	127
24	1,260	800	1,190		2,240	755	665	312	177	116	151	144
25	1,240	620	1,190		3,200	3,220	620	294	294	116	138	224
26	1,140	535	1,490		6,620	5,320	582	341	258	138	133	276
27	1,090	578	895	1,000	6,880	3,190	545	312	241	215	122	170
28	919	495	1,090		3,320	2,820	545	294	232	157	116	144
29	535	455	1,240		-------	3,060	545	294	215	133	116	133
30	410	450	1,190		-------	2,820	508	285	185	133	127	127
31	341	-------	1,490		-------	2,130	-------	267	-------	116	144	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,260	129	353	0.375	0.43
November	4,260	282	1,110	1.18	1.32
December	5,620	----------	1,610	1.71	1.97
January	12,200	----------	4,760	5.05	5.82
February	6,880	620	1,810	1.92	2.00
March	5,320	755	1,940	2.06	2.37
April	2,640	508	1,120	1.19	1.33
May	508	267	388	.412	.47
June	372	170	223	.237	.26
July	215	116	145	.154	.18
August	151	102	116	.123	.14
September	276	111	142	.151	.17
The year	12,200	102	1,140	1.21	16.46

WALHONDING RIVER AT POMERENE, OHIO

LOCATION.—Water-stage recorder at highway bridge at Pomerene, Coshocton County, one-third mile above Honey Run. Zero of gage 805.53 feet above mean sea level.

DRAINAGE AREA.—1,490 square miles.

RECORDS AVAILABLE.—September, 1921, to September, 1930. December, 1910, to March, 1913, published as Mohican River at Pomerene.

EXTREMES.—Maximum discharge during year not determined; minimum, 136 second-feet Aug. 13.

1921–1930: Maximum discharge, 27,400 second-feet Feb. 27, 1929; minimum, 101 second-feet Aug. 30, 1925 (gage height, 1.04 feet).

Flood of March, 1913, reached stage of 21.6 feet (discharge, estimated, 80,000 second-feet).

REMARKS.—Records good except those estimated because of ice, Nov. 30, Dec. 1–8, 21–26, Jan. 18 to Feb. 1, and those for other estimated periods, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	250	498	700	4,360	1,000	4,140	2,540	780	361	286	167	322
2	245	1,360	700	9,380	1,040	3,680	3,090	730	347	274	167	340
3	240	2,220	700	12,200	1,360	2,950	2,810	680	334	257	163	269
4	250	1,480	700	8,590	1,600	2,540	2,280	620	322	257	148	218
5	259	1,120	700	5,110	1,660	2,410	1,900	630	322	252	148	204
6	254	905	700	3,680	1,600	2,280	1,780	650	334	263	159	199
7	240	740	700	3,230	1,420	2,540	1,780	630	322	252	167	209
8	236	596	2,200	[a] 15,000	1,260	6,510	2,670	580	316	229	185	223
9	232	521	2,540	[a] 22,000	1,140	4,940	2,150	562	304	218	175	223
10	232	490	1,780	[a] 17,000	1,200	3,680	1,780	517	310	213	185	198
11	232	626	1,480	[a] 14,000	1,090	3,090	1,540	490	304	204	156	184
12	236	1,120	1,360	9,380	1,090	2,670	1,360	499	298	204	148	178
13	250	1,120	2,840	[a] 20,000	5,210	2,280	1,200	450	298	199	144	202
14	236	2,890	7,640	[a] 18,000	4,560	1,900	1,200	474	286	204	156	221
15	236	3,380	4,640	[a] 16,000	2,810	1,660	1,200	535	274	223	156	202
16	232	2,410	3,090	9,780	2,280	1,540	1,140	499	298	223	152	246
17	232	2,550	3,230	5,620	2,020	1,480	1,420	466	410	218	152	254
18	232	4,780	8,190	3,100	1,780	1,540	2,020	474	553	209	156	250
19	232	4,620	9,900	3,100	1,540	2,150	2,280	544	458	194	156	214
20	228	3,380	4,960	3,100	1,600	1,900	1,780	680	368	185	148	194
21	259	2,670	3,000	1,700	1,780	1,660	1,540	670	340	171	152	187
22	433	2,150	2,000	1,700	1,780	1,480	1,420	517	322	189	156	174
23	2,780	1,780	2,000	1,700	1,900	1,260	1,310	458	316	194	185	187
24	2,020	1,420	2,000	1,700	3,530	1,200	1,140	410	310	199	240	194
25	1,540	1,120	1,400	1,700	5,790	3,170	1,090	410	396	185	240	241
26	1,420	960	1,400	1,300	15,200	6,510	980	418	389	175	218	350
27	1,240	960	1,480	1,300	12,100	4,460	930	418	382	240	194	298
28	1,070	1,020	1,540	1,300	5,620	3,380	880	418	382	280	175	246
29	740	905	1,780	1,300	-------	3,680	830	426	328	234	180	210
30	596	700	1,780	1,300	-------	3,680	830	396	304	199	180	198
31	498	-------	2,150	1,300	-------	2,950	-------	375	-------	180	209	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,780	228	561	0.377	0.43
November	4,780	490	1,680	1.13	1.26
December	9,900	----------	2,560	1.72	1.98
January	----------	----------	7,060	4.74	5.46
February	15,200	1,000	3,030	2.03	2.11
March	6,510	1,200	2,880	1.93	2.23
April	3,090	830	1,630	1.09	1.22
May	780	375	529	.355	.41
June	553	274	343	.230	.26
July	286	171	220	.148	.17
August	240	144	172	.115	.13
September	350	174	228	.153	.17
The year	----------	144	1,740	1.17	15.83

[a] Estimated.

ROCKY FORK NEAR MANSFIELD, OHIO

LOCATION.—Chain gage in NE. ¼ sec. 26, T. 21 N., R. 18 W., at highway bridge on lower Lucas Road, 2 miles southeast of Mansfield. Zero of gage 1,120.88 feet above mean sea level.

DRAINAGE AREA.—38.3 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 1,320 second-feet Jan. 12 (gage height, 8.4 feet); minimum, 6.7 second-feet July 2, 20, Sept. 8 (gage height, 1.08 feet).

1925–1930: Maximum discharge, 2,470 second-feet Feb. 26, 1929; minimum, 6.3 second-feet Nov. 7, 1927 (gage height, 1.04 feet).

REMARKS.—Records good except those for low water, which are fair. Slight diurnal fluctuation at low water, owing to operation of Mansfield sewage treatment works.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	57	16	804	20	67	237	18	13	9.5	11	11
2	14	105	18	641	25	57	105	20	19	6.9	9.1	11
3	14	37	18	170	39	46	61	16	16	7.2	8.7	12
4	16	34	17	62	40	44	45	16	14	7.6	8.3	12
5	13	27	18	41	34	51	38	18	14	8.3	12	11
6	11	23	19	48	30	43	36	20	17	8.0	12	9.9
7	12	20	32	473	26	125	177	18	14	8.0	12	11
8	13	19	118	1,100	25	170	70	16	11	9.9	28	6.9
9	13	17	47	455	22	61	41	16	12	11	10	9.9
10	12	20	35	237	25	58	36	16	14	9.5	8.3	11
11	16	60	33	28	21	56	30	13	14	10	10	12
12	13	32	30	1,050	284	47	25	20	14	8.7	11	10
13	11	154	437	782	268	36	25	17	12	23	12	12
14	13	192	132	367	53	32	27	28	9.9	12	12	10
15	14	81	64	118	40	27	24	16	11	9.5	12	19
16	14	40	49	64	24	25	46	16	21	11	11	20
17	14	184	284	50	26	29	46	16	41	9.9	11	11
18	14	252	284	39	29	118	118	17	24	9.9	11	11
19	14	192	162	30	34	52	41	50	12	10	11	11
20	13	117	57	29	59	37	29	76	17	6.9	9.5	9.5
21	38	42	47	28	53	36	36	20	17	9.9	12	9.1
22	140	30	33	29	42	29	29	15	8.7	12	12	12
23	81	24	35	24	222	22	27	20	12	12	12	12
24	51	26	34	23	81	48	27	20	27	12	9.1	17
25	34	21	33	23	112	527	25	14	66	12	9.9	22
26	21	19	32	19	455	125	22	17	29	25	11	20
27	16	27	49	22	99	76	18	16	12	9.5	11	14
28	16	32	70	20	63	105	21	17	12	9.5	12	9.5
29	16	21	56	20	------	140	21	17	11	9.1	11	12
30	18	16	61	19	------	93	19	14	8.3	9.9	12	12
31	19	------	170	18	------	76	------	14	------	12	76	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	140	11	23.2	0.606	0.70
November	252	16	64.0	1.67	1.86
December	437	16	80.3	2.10	2.42
January	1,100	18	220	5.74	6.62
February	455	20	80.4	2.10	2.19
March	527	22	79.3	2.07	2.39
April	237	18	50.1	1.31	1.46
May	76	13	20.2	.527	.61
June	66.0	8.3	17.4	.454	.51
July	25.0	6.9	10.6	.277	.32
August	76.0	8.3	13.5	.353	.41
September	22.0	6.9	12.4	.324	.36
The year	1,100	6.9	56.0	1.46	19.85

JEROME FORK AT JEROMEVILLE, OHIO

LOCATION.—Chain gage in SW. ¼ sec. 5, T. 21 N., R. 15 W., at highway bridge at Jeromeville, 1 mile above mouth of Oldtown Run.

DRAINAGE AREA.—120 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,660 second-feet Jan. 9 (gage height, 10.0 feet); minimum, 2.4 second-feet Aug. 3–6, 11–13, 16–20 (gage height, 0.78 foot).

1925–1930: Maximum discharge, 3,130 second-feet Feb. 26, 1929 (gage height, 11.3 feet); minimum, that of Aug. 3–6, 11–13, 16–20, 1930.

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

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3	29	22	504	49	197	352	35	15	9.0	2.8	10
2	9.3	298	22	1,270	60	185	420	32	14	9.0	2.8	7.0
3	9.3	107	21	1,390	86	173	173	28	12	9.0	2.4	5.4
4	14	48	21	420	89	133	129	26	11	9.0	2.4	4.7
5	11	34	21	272	*85	131	114	27	12	8.0	2.4	4.7
6	9.3	27	22	209	81	124	108	34	14	8.0	3.8	4.7
7	9.3	23	42	259	77	161	272	29	12	7.0	3.8	7.5
8	9.3	21	246	2,180	68	591	259	25	12	7.0	5.0	6.5
9	9.3	21	135	2,220	84	392	116	24	12	6.0	3.8	5.0
10	8.4	*40	83	1,270	82	209	91	23	12	6.0	2.8	4.7
11	8.4		75	954	49	161	71	21	11	6.0	2.4	4.4
12	8.4	47	65	1,200	77	144	62	21	11	5.4	2.4	5.0
13	12	47	892	2,630	1,020	124	57	21	10	8.5	2.6	5.4
14	9.9		861	1,840	272	84	57	42	9.0	14	2.8	4.7
15	9.3	*200	365	923	149	68	63	28	9.0	10	2.8	5.4
16	8.9		197	259	129	66	93	24	14	9.0	2.4	23
17	8.4		533	185	96	71	285	21	26	7.5	2.4	16
18	7.6	504	1,330	197	88	246	365	37	35	5.7	2.4	8.0
19	7.6	285	710	159	93	222	298	73	20	6.0	2.4	6.0
20	8.0	197	338	122	173	118	234	50	15	4.7	2.4	5.4
21	37	139	185	104	185	91	129	35	12	4.7	3.1	4.7
22	298	96	135	100	173	77	68	26	11	7.5	4.4	3.4
23	246	72	100	89	173	71	56	23	12	5.7	4.4	3.4
24	98	61	88	77	234	84	50	24	17	4.4	7.0	5.0
25	75	52	83	60	650	1,520	47	20	17	4.1	4.7	21
26	*56	42	83	55	1,390	1,620	47	18	18	4.1	4.1	14.0
27	37	38	98	60	533	650	44	17	16	7.5	5.4	7.5
28	22	30	173	65	246	209	42	18	15	5.4	5.4	4.7
29	19	34	161	63	------	392	39	18	11	3.1	4.7	4.1
30	20	22	161	53	------	234	37	17	10	2.8	4.7	4.1
31	21	-----	311	52	------	185	------	17	------	2.8	6.5	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	298	7.6	36.0	0.300	0.35
November	504	21	105	.875	.98
December	1,330	21	244	2.03	2.34
January	2,630	52	621	5.18	5.97
February	1,390	49	232	1.93	2.01
March	1,620	66	282	2.35	2.71
April	365	37	139	1.16	1.29
May	73	17	27.5	.229	.26
June	35	9.0	14.2	.118	.13
July	14	2.8	6.67	.056	.06
August	7.0	2.4	3.59	.030	.03
September	23	3.4	7.18	.060	.07
The year	2,630	2.4	143	1.19	16.20

* Estimated.

KOKOSING RIVER NEAR MILLWOOD, OHIO

LOCATION.—Chain gage on east line of sec. 3, T. 6 N., R. 10 W., on highway bridge 3 miles southeast of Millwood.

DRAINAGE AREA.—472 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, about 11,300 second-feet Feb. 26 (gage-height, 9.80 feet); minimum, 39 second-feet July 25, 26, Aug. 3, 4, 12, 21, 29, Sept. 10.

1921–1930: Maximum discharge, 16,500 second-feet Mar. 20, 1917 (gage-height, 12.0 feet); minimum, 36 second-feet Sept. 4, 1925.

Flood of March, 1913, reached stage of 19.0 feet (discharge, estimated, 28,000 second-feet).

REMARKS.—Records good except those estimated because of ice, Nov. 30 to Dec. 7, Jan. 20 to Feb. 3, which are fair, and those for high water, which are poor.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	126		1,390		1,370	625	237	110	76	45	95
2	78	168		2,950	270	1,280	785	216	110	72	42	81
3	76	700		4,240		960	685	202	105	72	39	52
4	78	365		1,780	492	855	565	169	105	72	39	45
5	78	246	130	970	591	820	455	176	100	67	49	49
6	78	204		792	470	890	430	182	100	63	45	52
7	78	168		885	405	930	455	189	95	81	49	45
8	77	135	1,390	7,470	385	3,040	655	169	95	59	49	56
9	80	126	825	10,000	327	1,110	510	157	95	59	49	42
10	78	117	492	4,830	365	1,370	405	150	95	59	45	39
11	77	146	385	2,200	291	1,030	382	144	95	56	42	45
12	78	309	346	2,160	309	960	360	144	90	56	39	49
13	78	218	1,190	7,540	2,320	750	315	138	85	52	45	63
14	78	1,310	3,310	5,660	1,480	625	315	150	85	52	45	52
15	78	1,210	1,580	3,840	825	510	338	144	85	52	45	59
16	77	618	970	1,680	447	455	315	150	81	52	45	95
17	77	672	862	860	447	455	455	138	121	49	45	81
18	77	1,880	3,720	970	365	455	510	138	202	49	49	56
19	78	1,390	4,040	618	405	625	625	182	132	49	52	49
20	78	860	895	460	426	510	430	202	105	49	45	45
21	80	591	970		470	455	360	169	95	49	39	42
22	117	405	700		447	405	405	138	95	49	49	42
23	672	327	618	330	447	338	360	138	90	67	52	56
24	702	276	540		1,120	360	315	132	85	56	59	63
25	470	246	447		3,900	455	295	127	116	39	56	81
26	387	218	447		9,130	1,470	275	121	110	39	42	90
27	204	204	426		4,430	890	256	116	105	81	45	72
28	146	291	492		1,960	750	237	138	95	67	45	63
29	126	218	540	240	------	960	237	132	85	49	39	56
30	117	175	492		------	890	230	127	81	49	49	52
31	117	------	365		------	750	------	121	------	49	59	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	702	76	151	0.320	0.37
November	1,880	117	464	.983	1.10
December	4,040	----------	869	1.84	2.12
January	10,000	----------	2,080	4.41	5.08
February	9,130	----------	1,180	2.50	2.60
March	3,040	338	862	1.83	2.10
April	785	230	420	.890	.99
May	237	116	156	.331	.38
June	202	81	102	.216	.24
July	81	39	57.7	.122	.14
August	59	39	46.4	.098	.11
September	95	39	58.9	.125	.14
The year	10,000	39	535	1.13	15.37

KILLBUCK CREEK AT LAYLAND, OHIO

LOCATION.—Chain gage in T. 7 N., R. 7 W., at highway bridge at Layland, three-tenths mile above Big Run.

DRAINAGE AREA.—507 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1930 (discontinued).

EXTREMES.—Maximum discharge during year, 3,360 second-feet Jan. 16, 17 (gage height, 15.8 feet); minimum, 32 second-feet Aug. 5–8, Sept. 6–8, 13–15 (gage height, 1.9 feet).

1923–1930: Maximum discharge, 3,520 second-feet Feb. 27, 1929 (gage height, 16.2 feet); minimum, 14 second-feet Aug. 17, 1925 (gage height, 1.10 feet).

Maximum known stage, 22.6 feet March, 1913.

REMARKS.—Records good except those for high water and those estimated, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	148	64	1,690	308	2,160	910	229	109	75	36	36
2	400	159	60	2,480	308	1,420	851	192	104	83	36	36
3	79	159	60	2,580	432	1,260	832	170	104	91	34	36
4	75	159	60	2,440	480	1,100	682	148	96	83	34	34
5	75	159	60	2,090	512	990	578	148	91	67	32	34
6	71	148	57	1,510	464	870	528	229	91		32	32
7	71	138	159	990	400	851	512	216	96		32	32
8	71	128	353	2,020	353	1,230	910	192	96	60	32	32
9	67	118	448	2,760	323	2,230	990	192	91		39	36
10	67	109	416	2,720	496	1,840	682	170	87		36	39
11	67	114	353	2,650	950	1,360	561	159	91	51	34	36
12	71	148	338	2,650	990	1,030	496	148	87	51	34	34
13	79	192	400	2,880	756	890	464	159	79	48	34	32
14	75	281	432	3,160	578	794	448	159	79	51	34	32
15	71	338	416	3,320	528	682	416	170	67	54	34	32
16	71	323	496	3,360	496	578	416	159	67	51	32	42
17	71	308	646	3,360	464	512	384	148	91	51	32	67
18	71	384	1,480	3,120	448	496	353	159	118	48	36	60
19	67	629	1,420	1,880	448	464	480	192	138	48	36	45
20	67	890	1,200	1,010	480	448	448	242	114	45	36	36
21	79	737	970	794	578	432	416	242	91	45	34	36
22	109	448	737	664	646	432	400	181	83	45	45	34
23	138	255	682	561	718	416	353	148	75	48	42	36
24	159	216	646	480	1,030	416	338	138	100	45	42	57
25	181	192	595	432	1,880	448	323	128	170	42	40	54
26	204	181	544		2,960	775	294	128	229	36	39	48
27	181	170	496		2,540	1,630	281	128	216	36	36	42
28	128	159	448	370	2,440	1,280	281	128	148	36	36	36
29	118	159	432		-------	1,030	268	118	91	36	36	34
30	109	159	448		-------	970	255	118	87	36	34	34
31	114	-------	910		-------	950	-------	109	-------	36	34	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	400	67	106	0.209	0.24
November	890	109	257	.507	.57
December	1,480	57	511	1.01	1.16
January	3,360	----------	1,740	3.43	3.95
February	2,960	308	822	1.62	1.69
March	2,230	416	967	1.91	2.20
April	990	255	505	.996	1.11
May	242	109	166	.327	.38
June	229	67	106	.209	.23
July	91	36	52.8	.104	.12
August	45	32	35.6	.070	.08
September	67	32	39.1	.077	.09
The year	3,360	32	441	.870	11.82

WILLS CREEK AT BIRDS RUN, OHIO

LOCATION.—Water-stage recorder in SW. ¼ sec. 19, T. 4 N., R. 4 W., 200 feet below mouth of Birds Run at Birds Run, Guernsey County. Zero of gage 740.98 feet above mean sea level.

DRAINAGE AREA.—730 square miles.

RECORDS AVAILABLE.—August, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,420 second-feet Nov. 20, 21 (gage height, 20.74 feet); minimum, 2.5 second-feet Aug. 12 (gage height, 1.44 feet).

1928–1930: Maximum discharge, 5,730 second-feet May 5, 1929 (gage height, 21.4 feet); minimum, that of Aug. 12, 1930.

Maximum stage known, 27.0 feet March, 1913 (discharge, estimated, 15,000 second-feet).

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

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	346	544	1,480	405	3,850	1,000	162	42	23	5.2	7.0
2	28	535	565	2,090	386	3,310	1,290	150	40	21	5.2	9.7
3	76	936	502	2,780	544	2,360	1,770	135	36	15	5.2	9.7
4	513	1,240	482	2,920	1,030	1,720	1,750	120	32	14	5.2	7.6
5	586	1,100	442	2,210	1,520	1,450	1,190	110	29	11	5.2	7.0
6	340	670	365	1,580	2,180	1,420	846	108	29	13	5.2	6.4
7	187	442	365	1,050	2,120	1,910	802	107	28	11	5.8	6.4
8	120	328	628	1,100	1,520	3,280	846	106	25	9.7	5.2	11
9	92	260	1,000	2,060	1,070	3,940	802	104	22	8.3	5.2	8.3
10	76	214	846	3,030	890	4,090	628	93	21	6.4	4.7	7.0
11	66	214	628	3,240	1,000	3,860	524	84	21	5.2	3.7	6.4
12	58	244	544	3,060	780	3,380	454	81	23	7.0	2.9	7.0
13	54	260	991	3,770	1,050	2,510	424	77	21	10	2.9	7.6
14	54	373	2,920	4,610	1,970	1,450	444	83	19	13	4.7	11
15	54	1,720	3,730	4,920	1,880	936	464	88	18	11	5.2	15
16	53	2,570	4,130	4,780	1,140	758	414	96	18	11	4.7	18
17	45	2,820	4,010	4,250	714	692	386	98	17	12	5.2	12
18	[a]42	4,170	3,490	2,910	692	780	386	91	19	12	5.8	10
19	[a]38	4,880	3,200	1,090	670	1,140	358	103	23	11	4.7	9.7
20	[a]35	5,370	3,200	890	670	1,520	314	126	20	8.3	4.2	9.0
21	32	5,370	2,610	982	607	1,300	281	174	19	7.6	4.2	12
22	62	4,960	1,380	936	524	890	265	144	19	6.4	5.2	10
23	291	4,290	959	1,030	484	670	250	100	19	7.0	6.4	15
24	982	2,160	959	936	846	607	228	77	17	7.6	7.6	11
25	780	780	959	1,000	1,800	628	207	65	13	6.4	8.3	11
26	565	586	890	670	2,890	982	200	54	12	6.4	7.6	12
27	422	502	780	607	3,690	1,300	188	48	82	8.3	8.3	12
28	293	544	736	544	3,970	1,100	168	48	67	7.6	7.6	9.7
29	214	780	1,030	586	-------	1,210	168	48	35	5.8	7.6	7.6
30	174	628	1,140	586	-------	1,480	162	45	26	5.2	6.4	7.6
31	214	-------	1,140	484	-------	1,260	-------	43	-------	5.2	6.4	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	982	24	212	0.290	0.33
November	5,370	214	1,640	2.25	2.51
December	4,130	365	1,460	2.00	2.31
January	4,920	484	2,010	2.75	3.17
February	3,970	386	1,320	1.81	1.88
March	4,090	607	1,800	2.47	2.85
April	1,770	162	574	.786	.88
May	174	43	95.7	.131	.15
June	82	12	27.1	.037	.04
July	23	5.2	9.88	.014	.02
August	8.3	2.9	5.54	.008	.01
September	18	6.4	9.79	.013	.01
The year	5,370	2.9	761	1.04	14.16

[a] Estimated.

LICKING RIVER AT TOBOSO, OHIO

LOCATION.—Water-stage recorder at highway bridge at Toboso, Licking County, 3 miles below mouth of Rocky Fork. Zero of gage 744.84 feet above mean sea level.

DRAINAGE AREA.—672 square miles.

RECORDS AVAILABLE.—September, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 9,740 second-feet Jan. 13 (gage height, 12.4 feet); minimum, 44 second-feet Aug. 5, 19, 20, Sept. 11 (gage height, 1.60 feet).

1921–1930: Maximum discharge, 17,000 second-feet Feb. 26, 1929 (gage height, 17.9 feet); minimum, that of Aug. 5, 19, 20, Sept. 11, 1930.

Flood of March, 1913, reached a stage of 20.0 feet (discharge, estimated, 20,000 second-feet).

REMARKS.—Records good except those for periods of ice effect, Nov. 29 to Dec. 5, Dec. 20–22, Jan. 20–29, Feb. 15–17, which are fair. Flow slightly regulated at Buckeye Lake on South Fork of Licking River.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	449		2,390	435	1,530	660	232	114	76	48	67
2	91	1,940		3,320	435	1,600	1,080	225	111	74	48	57
3	88	1,400	270	4,760	592	1,260	960	214	106	72	46	59
4	85	980		2,280	760	1,140	810	211	103	67	48	54
5	80	640		1,330	1,080	1,080	710	194	101	65	46	50
6	78	515	228	1,050	860	1,140	638	189	103	65	57	48
7	75	400	268	910	760	2,290	638	184	103	63	59	48
8	118	335	738	4,760	660	6,480	592	173	101	63	55	50
9	141	296	805	7,570	638	3,260	525	165	98	61	52	48
10	131	264	575	4,900	660	1,960	480	158	95	61	48	48
11	124	296	515	2,440	592	1,460	435	150	101	61	48	46
12	114	291	485	2,330	592	1,200	414	147	95	59	48	55
13	108	335	1,620	7,800	3,580	960	414	143	93	59	48	57
14	104	2,390	4,340	7,600	1,880	810	480	147	90	65	54	50
15	98	3,050	2,120	5,050	1,020	660	480	143	88	61	54	50
16	93	1,800	1,260	2,520	710	615	458	143	98	59	46	57
17	91	4,020	1,330	1,670	638	592	458	140	108	59	46	59
18	85	5,100	3,660	1,260	638	615	592	137	117	57	50	54
19	80	3,130	5,720	1,020	660	660	638	150	111	55	48	52
20	78	1,880	2,520	860	660	592	502	173	103	54	46	50
21	104	1,260	1,400		710	548	414	165	98	52	48	48
22	486	980	980		660	502	414	150	90	55	52	48
23	1,680	770	840	610	860	480	392	137	88	59	59	48
24	1,190	640	705		1,760	480	350	137	85	54	63	48
25	805	545	640		5,130	615	330	124	88	54	55	52
26	545	515	608		8,030	910	298	117	83	55	54	78
27	375	485	640		4,120	760	282	114	81	61	50	70
28	291	608	875	460	2,120	710	274	130	78	57	48	59
29	250	545	875		-------	910	266	121	76	52	50	52
30	250	350	770	458	-------	860	259	114	74	52	52	52
31	340	-------	1,330	458	-------	710	-------	114	-------	48	72	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	1,680	75	267	May	232	114	156
November	5,100	264	1,210	June	117	74	96.0
December	5,720	228	1,200	July	76	48	59.8
January	7,800	458	2,311	August	72	46	51.6
February	8,030	435	1,470	September	78	46	53.8
March	6,480	480	1,210				
April	1,080	259	508	The year	8,030	46	712

LITTLE KANAWHA RIVER BASIN

LITTLE KANAWHA RIVER AT GLENVILLE, W. VA.

LOCATION.—Chain gage on highway bridge at Glenville, Gilmer County, three-tenths mile below Sycamore Creek. Zero of gage 697.79 feet above mean sea level.

DRAINAGE AREA.—385 square miles.

RECORDS AVAILABLE.—June, 1915, to September, 1922; December, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 8,830 second-feet Oct. 3 (gage height, 23.90 feet); no flow Sept. 3–9, 11–20, 28.

1915–1922, 1929–30: Maximum stage, 31.7 feet Mar. 13, 1918 (discharge not determined); no flow part of September, 1930.

REMARKS.—Records good Jan. 22 to Sept. 30; poor Oct. 1 to Jan. 21.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97	317		360	425	460	304	76	27	12	13	0.01
2	2,650	425		360	360	460	1,100	72	23	11	7.9	e.01
3	8,650	3,990		1,260	360	495	1,390	67	21	9.0	4.9	0
4	2,650	2,810		1,300	735	442	1,020	62	18	6.2	3.4	0
5	735	1,390		695	4,860	460	735	58	17	5.2	3.2	0
6	615	1,180		495	1,510	655	535	72	16	3.8	3.0	0
7		655		317	895	1,640	535	67	13	3.6	e2.5	0
8		254		243	615	1,980	1,060	62	12	3.4	e2.0	0
9		172		190	408	1,640	735	58	10	3.0	1.4	0
10		164			855	1,060	655	52	13	2.4	1.2	.01
11		147			615	1,300	535	46	14	1.8	.9	0
12		139	e270		460	1,810	390	54	e30	1.6	.8	0
13		124			425	1,180	330	52	49	1.6	.6	0
14		200			855	815	291	76	34	1.5	e.9	0
15		815			855	575	343	67	22	1.0	1.2	0
16	e150	495		e240	575	442	210	92	18	.2	1.0	0
17		1,640			495	360	181	110	34	1.0	.8	0
18		7,780			735	408	155	92	62	.8	.7	0
19		3,440			695	2,900	442	81	50	1.8	.6	0
20		1,220			575	1,180	291	92	48	3.0	.5	0
21		735			495	775	210	97	39	3.2	.5	.01
22		695		147	408	535	190	76	25	3.2	.4	.02
23		425	278	132	345	390	164	72	20	4.1	.4	.01
24		291	254	117	495	345	139	62	17	4.6	.4	.02
25			232	81	815	317	117	58	15	15	.6	.02
26			243	76	815	695	110	58	14	12	.6	.07
27	110	e260	655	86	815	535	104	55	e14	14	.5	.1
28	104		3,490	1,390	575	615	92	47	e14	12	.1	0
29	200		1,680	1,390	------	535	81	39	14	9.6	.07	.02
30	266		575	815	------	425	76	34	13	12	.02	.01
31	345	------	408	495	------	360	------	29	------	20	.02	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,650	----------	627	1.63	1.88
November	7,780	----------	1,040	2.70	3.01
December	3,490	----------	444	1.15	1.33
January	1,390	76	414	1.08	1.24
February	4,860	345	788	2.05	2.14
March	2,900	317	832	2.16	2.49
April	1,390	76	414	1.08	1.20
May	110	29	65.6	.170	.20
June	62	10	23.9	.062	.07
July	20	.2	5.92	.015	.02
August	13	.02	1.75	.0045	.005
September	.1	0	.01	.00003	.00003
The year	8,650	0	384	.997	13.59

e Estimated.

LITTLE KANAWHA RIVER AT GRANTSVILLE, W. VA.

LOCATION.—Chain gage on highway bridge at Grantsville, Calhoun County.
DRAINAGE AREA.—913 square miles.
RECORDS AVAILABLE.—December, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 16,100 second-feet Nov. 18 (gage height, 27.42 feet); no flow Sept. 10–30.
1928–1930: Maximum discharge, 17,100 second-feet Feb. 26, 1929 (gage height, 28.41 feet); no flow Sept. 10–30, 1930.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	835	440	1,700	1,160	e 1,300	735	162	41	17	6.5	1.7
2	835	735	480	1,060	1,060	e 1,100	1,700	150	39	15	5.7	1.2
3	12,800	6,740	480	2,000	945	e 1,200	2,280	128	34	13	4.8	.8
4	9,100	10,000	480	2,630	1,520	e 1,300	2,280	120	31	11	7.5	.8
5	1,640	2,420	362	1,960	12,200	1,280	1,640	132	30	10	8.0	.6
6	890	1,220	440	1,280	5,460	2,000	1,220	138	27	10	10	.4
7	590	785	1,000	1,060	2,350	3,540	1,160	128	22	10	8.5	.3
8	400	568	1,520	835	1,580	9,910	1,160	122	22	9.0	8.5	.3
9	292	440	1,280	735	1,110	5,460	1,110	115	19	8.0	8.0	.2
10	215	345	1,000	685	1,820	3,330	1,280	100	17	6.5	6.5	0
11	178	292	785	635	1,760	2,560	1,060	96	16	5.4	6.0	0
12	142	260	1,640	635	1,280	5,300	785	890	16	5.1	7.0	0
13	122	230	2,420	735	1,110	3,120	735	568	14	6.5	5.7	0
14	107	545	1,700	735	1,820	2,000	590	260	18	6.0	7.5	0
15	96	1,880	1,580	735	1,820	1,400	522	380	30	5.4	8.0	0
16	83	3,120	1,400	590	1,400	1,060	440	440	27	4.5	6.5	0
17	81	3,260	1,060	522	1,110	835	380	362	49	4.5	6.0	0
18	75	15,400	1,220	440	1,400	785	292	328	79	4.2	5.4	0
19	73	10,700	1,280	380	1,400	7,060	735	210	118	4.2	5.4	0
20	79	2,770	1,880	310	1,280	3,540	1,000	172	104	3.9	4.5	0
21	81	1,460	1,280	230	1,060	1,940	522	182	62	3.6	3.3	0
22	2,210	945	890	260	890	1,340	522	111	44	3.9	2.8	0
23	1,820	735	785	260	785	1,000	480	107	31	5.7	2.3	0
24	890	635	685	245	1,060	785	362	115	25	4.5	1.9	0
25	480	545	545	230	2,420	685	292	94	22	3.9	2.8	0
26	328	460	545	230	2,210	1,280	245	69	18	3.6	2.8	0
27	275	420	1,160	245	2,490	1,520	230	88	16	4.5	2.1	0
28	230	685	9,280	2,700	1,640	1,520	198	61	19	4.5	2.1	0
29	230	1,110	6,420	3,890	-------	1,520	188	55	16	12	1.7	0
30	328	735	3,260	2,210	-------	1,160	168	46	18	10	1.5	0
31	835	-------	2,280	1,280	-------	890	-------	40	-------	8.5	1.2	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,800	37	1,150	1.26	1.45
November	15,400	230	2,340	2.56	2.86
December	9,280	362	1,800	1.75	2.02
January	3,890	230	1,010	1.11	1.28
February	12,200	785	2,000	2.19	2.28
March	9,910	685	2,310	2.53	2.92
April	2,280	168	810	.887	.99
May	890	40	193	.211	.24
June	118	14	34.1	.037	.04
July	17	3.6	7.22	.0079	.009
August	10	1.2	5.18	.0057	.007
September	1.7	0	.21	.00023	.0003
The year	15,400	0	949	1.04	14.10

e Estimated.

HUGHES RIVER AT CISKO, W. VA.

LOCATION.—Staff gage at Cisko, Petroleum County, 1 mile below junction of North and South Forks.

DRAINAGE AREA.—453 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1922; February, 1929, to September, 1930.

EXTREMES.—Maximum discharge during year, 10,800 second-feet Nov. 18 (gage height, 17.9 feet); no flow July 26, Aug. 2–6, Sept. 4–30.

1915–1922, 1929–30. Maximum stage, 30.25 feet Jan. 22, 1917 (discharge not determined); no flow July 26, Aug. 2–6, Sept. 4–30, 1930.

REMARKS.—Records good. Discharge estimated because of ice Dec. 23, Jan. 20.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	620	230	585	375	550	260	52	18	3.5	0.1	0.1
2	1,140	410	176	620	358	1,180	1,220	45	17	3.8	0	.1
3	6,800	2,900	176	1,020	780	1,300	1,100	38	13	3.2	0	.1
4	860	2,130	163	860	1,500	980	980	38	10	2.7	0	0
5	340	620	151	515	10,000	900	585	34	7.8	2.2	0	0
6	260	375	189	410	1,550	1,260	428	34	8.8	2.2	0	0
7	202	275	392	340	780	2,830	445	33	7.0	2.2	.1	0
8	137	202	515	307	550	8,800	620	30	6.5	2.2	.1	0
9	122	151	445	480	392	2,310	515	28	7.0	1.5	.1	0
10	77	122	307	550	780	1,180	375	26	6.5	1.1	.1	0
11	60	115	260	515	860	1,350	307	24	6.5	1.0	.1	0
12	49	103	230	480	550	2,130	275	21	5.2	.5	.1	0
13	49	98	260	550	620	1,020	230	81	3.8	.5	.1	0
14	41	275	1,180	780	700	620	202	52	3.5	.8	.2	0
15	32	2,310	740	700	780	375	176	103	3.5	.8	.2	0
16	31	1,400	515	480	480	340	176	176	2.9	.7	.2	0
17	30	3,610	358	340	445	307	151	189	2.9	.4	.1	0
18	30	10,200	515	291	445	445	139	122	3.5	.2	.1	0
19	29	2,010	860	202	392	4,740	137	85	3.2	.2	.1	0
20	28	780	550	189	340	1,260	151	98	2.9	.2	.1	0
21	28	480	291	163	291	700	127	151	2.9	.2	.2	0
22	1,400	392	230	176	260	445	151	91	2.4	.1	.2	0
23	2,250	275	230	139	245	340	151	60	2.2	.1	.2	0
24	550	260	230	103	358	275	117	49	2.4	.1	.2	0
25	340	230	202	113	2,130	275	93	43	3.5	.1	.3	0
26	260	202	215	108	2,070	375	81	45	5.2	0	.2	0
27	202	189	515	108	2,250	515	77	40	4.1	.1	.2	0
28	151	245	3,850	515	900	340	64	38	3.5	.1	.2	0
29	132	480	2,370	1,830	-------	480	58	27	2.9	.2	.1	0
30	245	275	1,020	860	-------	392	55	22	2.9	.2	.1	0
31	700	-------	780	515	-------	324	-------	19	-------	.1	.1	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,800	28	536	1.18	1.36
November	10,200	98	1,060	2.34	2.61
December	3,850	151	585	1.29	1.49
January	1,830	103	479	1.06	1.22
February	10,000	245	1,110	2.45	2.55
March	8,800	275	1,240	2.74	3.16
April	1,220	55	315	.695	.78
May	189	19	61.1	.135	.16
June	18	2.2	5.72	.013	.01
July	3.8	0	1.01	.0022	.003
August	.3	0	.12	.00026	.0003
September	.1	0	.01	.00002	.00002
The year	10,200	0	445	.982	13.34

HOCKING RIVER BASIN

HOCKING RIVER NEAR LANCASTER, OHIO

LOCATION.—Chain gage in SW. ¼ sec. 28, T. 14 N., R. 18 W., at highway bridge 5 miles southeast of Lancaster.
DRAINAGE AREA.—92.8 square miles.
RECORDS AVAILABLE.—September, 1923, to September, 1930.
EXTREMES.—Maximum discharge during year, 1,450 second-feet Mar. 8 (gage height, 8.1 feet); minimum, 8 second-feet Aug. 2–5, Sept. 11 (gage height, 1.30 feet).

1923–1930: Maximum discharge, 1,720 second-feet Feb. 26, 1929 (gage height, 9.1 feet); minimum, 5 second-feet Aug. 11, 1925.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	353	53	61	65	128	87	46	22	18	9	18
2	31	450	48	176	72	120	174	43	21	15	9	13
3	28	430	46	218	104	136	132	42	21	14	8	87
4	28	353	50	262	353	128	102	41	19	13	9	18
5	26	218	57	168	372	128	94	39	19	13	9	11
6	26	152	71	136	168	128	87	38	21	12	12	10
7	26	97	85	193	112	593	94	37	21	11	12	10
8	25	68	91	724	97	1,090	80	35	21	10	18	17
9	24	58	88	635	92	450	80	34	20	12	13	13
10	24	48	91	280	104	231	73	34	19	13	10	12
11	26	27	92	160	94	193	70	33	19	12	10	10
12	26	26	128	280	88	166	67	32	19	12	9	25
13	26	33	227	888	334	124	67	30	19	12	9	21
14	25	747	280	679	244	116	74	32	18	15	15	13
15	24	864	244	470	136	109	65	33	17	16	15	13
16	25	593	244	227	112	102	62	31	18	15	12	16
17	26	816	244	202	97	94	62	29	27	13	11	18
18	26	770	298	168	90	140	74	36	28	12	10	13
19	26	551	280	136	86	132	58	37	25	11	10	12
20	26	218	244	120	81	102	60	26	21	10	10	10
21	33	104	104	112	78	94	55	28	20	10	12	16
22	62	79	104	104	75	87	54	28	19	10	12	13
23	81	71	97	104	97	87	54	26	18	10	12	11
24	112	74	96	97	112	80	53	27	21	9	19	10
25	112	72	96	86	104	109	52	26	22	9	21	15
26	91	68	184	84	657	109	49	24	20	9	13	12
27	81	67	353	82	316	102	48	23	17	26	12	11
28	71	69	244	86	160	116	48	26	14	17	12	10
29	71	64	120	88	------	116	48	26	13	10	13	10
30	85	58	69	79	------	102	47	24	14	10	13	10
31	152	------	65	67	------	87	------	23	------	9	20	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	152	24	47.5	0.512	0.59
November	864	26	253	2.73	3.05
December	353	46	145	1.56	1.80
January	888	61	231	2.49	2.87
February	657	65	161	1.73	1.80
March	1,090	80	177	1.91	2.20
April	174	47	72.3	.779	.87
May	46	23	31.9	.344	.40
June	28	13	19.8	.213	.24
July	26	9	12.5	.135	.16
August	21	8	12.2	.131	.15
September	87	10	15.9	.171	.19
The year	1,090	8	97.9	1.05	14.32

HOCKING RIVER AT ATHENS, OHIO

LOCATION.—Chain gage on Mill Street Bridge, three-fourths mile east of business section of Athens, Athens County. Zero of gage 615.59 feet above mean sea level.

DRAINAGE AREA.—944 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 11,700 second-feet Mar. 9 (gage height, 17.5 feet); minimum, 14 second-feet Aug. 4 (gage height, 2.26 feet).

1915–1930: Maximum discharge, 20,500 second-feet Apr. 16, 1912 (gage height, 21.8 feet); minimum, 14 second-feet Sept. 21, 1925, Aug. 4, 1930.

Maximum known stage, 26.7 feet in January, 1907.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	820	560	1,730	560	1,800	950	330	84	61	41	38
2	216	1,080	560	1,990	592	1,860	3,620	280	86	76	84	37
3	330	3,160	560	3,160	1,020	1,660	3,030	271	86	81	68	52
4	280	2,440	560	2,510	1,340	1,400	2,120	253	88	57	15	81
5	208	1,280	500	1,470	4,660	1,400	1,660	235	84	57	18	81
6	178	950	500	1,280	2,380	1,800	1,210	244	79	61	20	61
7	164	788	560	1,140	1,540	1,990	1,280	219	76	61	38	45
8	140	658	755	1,470	950	9,130	1,340	212	81	57	50	50
9	127	560	885	5,500	885	11,500	1,080	189	76	55	44	42
10	112	500	722	7,410	1,210	6,870	950	192	76	49	32	41
11	101	470	690	4,140	1,080	2,640	820	189	76	38	45	38
12	107	560	690	2,060	950	2,250	755	182	76	35	42	34
13	110	500	2,120	3,620	1,600	1,600	722	178	68	52	31	32
14	110	1,600	6,540	6,940	2,380	1,340	658	160	70	53	33	47
15	101	7,160	5,440	7,010	1,340	1,140	658	185	70	53	37	53
16	101	8,210	2,320	5,110	1,020	1,020	592	182	68	61	29	63
17	107	3,480	1,540	2,180	950	1,020	560	157	68	50	37	74
18	96	9,130	1,860	1,660	950	1,210	560	153	96	47	35	57
19	91	11,000	5,110	1,280	885	3,160	592	153	115	59	28	50
20	96	5,560	4,070	1,210	820	1,730	530	204	98	47	33	44
21	107	2,060	1,600	1,080	755	1,340	470	240	81	49	37	42
22	820	1,470	1,280	1,020	690	1,080	440	157	74	47	53	32
23	2,250	1,210	1,140	885	722	950	383	140	59	44	49	28
24	1,140	1,080	1,080	820	950	885	330	130	66	50	45	31
25	1,020	950	950	820	1,080	1,080	330	121	86	42	50	28
26	950	820	950	755	3,880	1,400	330	115	81	45	47	29
27	625	820	950	690	6,080	1,140	330	110	79	41	44	31
28	500	950	1,860	755	3,220	1,280	330	98	68	39	41	33
29	440	1,020	1,730	788	-------	1,140	330	91	61	59	38	38
30	625	658	1,470	658	-------	1,340	330	91	57	49	33	33
31	950	-------	1,660	592	-------	1,400	-------	84	-------	44	32	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,250	91	398	0.422	0.49
November	11,000	470	2,360	2.50	2.79
December	6,540	500	1,650	1.75	2.02
January	7,410	592	2,310	2.45	2.82
February	6,080	560	1,590	1.68	1.75
March	11,500	885	2,240	2.37	2.73
April	3,620	330	910	.963	1.07
May	330	84	179	.190	.22
June	115	57	77.8	.082	.09
July	81	35	52.2	.055	.06
August	84	15	39.6	.042	.05
September	81	28	44.8	.047	.05
The year	11,500	15	985	1.04	14.14

KANAWHA RIVER BASIN

SOUTH FORK OF NEW RIVER NEAR JEFFERSON, N. C.

LOCATION.—Chain gage at highway bridge one-fourth mile downstream from mouth of Bear Creek and 4 miles southeast of Jefferson, Ashe County.

DRAINAGE AREA.—207 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1926; July, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 4,560 second-feet Oct. 2 (gage height, 5.75 feet); minimum, 71 second-feet Aug. 7, 14 (gage height, 0.82 foot).

1924–1926, 1928–1930: Maximum discharge (estimated), 6,660 second-feet Aug. 16, 1928 (gage height, 7.55 feet); minimum, 65 second-feet Sept. 9, 1925 (gage height, 0.80 foot).

REMARKS.—Records good for discharge below 2,500 second-feet; fair above. Small regulation caused by operation of old grist mills upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,220	780	260	565	369	304	315	266	173	120	109	104
2	3,740	990	742	565	500	304	315	260	169	112	96	94
3	1,930	990	670	635	532	293	351	246	156	104	94	109
4	1,130	945	468	565	635	298	375	228	150	109	87	104
5	780	820	670	532	780	339	321	224	156	104	92	109
6	670	705	860	565	635	327	565	256	173	109	80	117
7	635	634	600	565	532	1,320	780	339	193	96	74	126
8	600	635	635	565	500	1,320	670	298	193	94	85	310
9	468	600	600	532	468	742	468	293	193	94	94	211
10	435	565	565	532	435	600	375	256	207	94	89	153
11	405	565	565	565	405	565	363	256	184	94	96	188
12	405	600	532	532	375	532	351	271	169	92	102	180
13	375	705	532	532	375	532	345	276	184	92	94	184
14	363	635	532	468	435	468	351	271	193	94	74	163
15	351	705	532	500	405	435	339	282	207	109	282	137
16	351	705	532	500	375	405	310	251	184	140	271	128
17	327	780	565	435	339	405	327	238	211	156	140	207
18	315	1,520	635	435	363	468	351	224	223	143	156	184
19	304	990	1,080	405	351	705	405	468	180	123	207	176
20	304	820	860	405	351	635	327	375	160	104	169	224
21	767	705	532	468	351	500	298	256	160	92	137	251
22	3,470	670	635	468	339	500	293	224	150	89	565	228
23	1,720	705	600	468	357	468	293	215	150	85	635	176
24	1,180	670	532	405	405	405	271	224	150	82	242	153
25	820	635	363	405	405	435	271	220	137	85	169	150
26	705	635	565	363	405	435	260	199	137	82	146	188
27	635	705	670	500	333	375	256	192	143	99	169	207
28	600	635	670	405	321	375	251	196	137	199	215	150
29	600	565	705	405	------	363	256	192	127	169	143	131
30	742	468	600	435	------	351	256	207	117	137	131	126
31	705	------	600	405	------	339	------	176	------	131	117	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,740	304	873	4.22	4.86
November	1,520	468	736	3.56	3.97
December	1,080	260	610	2.95	3.40
January	635	363	488	2.36	2.72
February	780	321	431	2.08	2.17
March	1,320	293	501	2.42	2.79
April	780	251	357	1.72	1.92
May	468	176	254	1.23	1.42
June	228	117	170	.821	.92
July	199	82	111	.536	.62
August	635	74	166	.802	.92
September	310	94	166	.802	.89
The year	3,740	74	406	1.96	26.60

NEW RIVER NEAR BAYWOOD, VA.

LOCATION.—Staff gage at Boyers Ferry, 2 miles west of Baywood, Grayson County, and 1 mile below mouth of Little River.
DRAINAGE AREA.—1,000 square miles.
RECORDS AVAILABLE.—January, 1928, to March, 1930 (discontinued).
EXTREMES.—Maximum discharge during period of record, about 22,400 second-feet Oct. 2, 1929 (gage height, 10.70 feet); minimum, mean daily (estimated), 1,050 second-feet Aug. 1–3, 1928.
REMARKS.—Records fair below 7,000 second-feet; poor above.

Daily discharge, in second-feet, 1928–1930

Day	Jan.	Feb.	Apr.	May	June	July	Aug.	Sept.
1928								
1	-------	a 2,300	-------	2,740	1,630	-------	a 1,050	3,240
2	-------	1,720	-------	2,440	1,540	-------	a 1,050	7,140
3	-------	1,720	-------	1,930	1,540	-------	a 1,050	6,120
4	-------	1,460	-------	1,720	2,440	-------	1,100	4,540
5	-------	1,720	-------	1,720	2,440	-------	1,460	5,320
6	-------	1,540	-------	1,720	1,820	-------	1,720	12,200
7	-------	1,390	-------	2,440	1,720	-------	1,720	7,350
8	-------	1,930	-------	3,070	1,720	-------	1,540	4,920
9	2,740	2,170	-------	2,590	1,630	-------	1,540	3,600
10	2,590	1,720	-------	2,300	1,540	-------	2,170	3,070
11	1,930	1,720	-------	1,930	1,930	-------	4,540	3,070
12	1,720	1,540	-------	1,720	2,900	-------	5,720	2,170
13	1,540	1,390	4,540	1,720	2 900	-------	2,440	2,170
14	1,390	1,390	3,420	1,540	2,440	-------	1,720	2,170
15	1,390	1,630	2,900	1,540	1,930	1,390	1,820	2,170
16	1,390	1,540	2,440	1,460	1,630	1,390	17,300	2,590
17	1,390	-------	2,170	1,390	1,540	1,720	13,400	2,440
18	1,390	-------	1,820	1,390	2,440	1,390	6,930	2,300
19	1,540	-------	1,720	1,720	1,720	1,390	4,160	4,730
20	1,720	-------	2,440	2,900	1,460	1,320	3,970	10,400
21	1,540	-------	2,440	2,740	1,460	1,260	2,440	5,720
22	1,460	-------	2,300	2,170	1,540	1,260	2,440	3,780
23	1,540	-------	2,440	1,930	1,630	1,390	2,740	3,240
24	1,630	-------	2,170	1,720	1,540	1,150	2,300	2,740
25	1,820	-------	1,930	1,720	1,540	1,150	3,070	2,440
26	1,540	-------	1,720	1,630	1,720	a 1,200	3,420	2,440
27	1,540	-------	2,170	1,720	1,720	1,260	4,540	2,300
28	1,390	-------	3,780	2,590	1,540	1,260	3,420	2,170
29	1,390	-------	3,070	2,170	1,540	1,200	2,740	2,170
30	1,320	-------	3,070	1,720	2,050	1,150	2,170	2,590
31	a 1,300	-------	-------	1,720	-------	1,100	2,050	-------

a Estimated.

Daily discharge, in second-feet, of New River near Baywood, Va., 1928–1930—Continued

Day	Oct	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	2,440	1,630	1,390	1,260	1,390	6,720	1,630	1,720	1,930	1,930	2,440	1,060
2	2,170	1,630	1,390	1,390	1,260	4,540	1,540	2,170	1,720	3,070	1,720	1,060
3	2,300	1,540	1,320	1,320	1,260	3,240	1,460	3,070	1,630	2,740	1,390	1,060
4	2,170	1,630	1,320	1,260	1,460	2,740	1,390	2,300	1,630	2,050	1,390	1,150
5	2,170	1,540	1,320	1,390	1,390	6,520	1,390	1,930	1,540	1,820	1,260	1,260
6	2,170	1,540	1,260	2,440	1,540	7,560	1,320	1,720	1,390	1,720	1,200	1,320
7	2,440	1,460	1,260	2,170	1,930	5,120	1,320	2,170	1,390	1,930	1,200	1,260
8	2,170	1,540	1,260	1,720	1,630	3,600	1,260	2,170	2,170	1,720	1,320	1,390
9	1,820	1,540	1,200	1,630	1,720	2,900	1,200	2,170	4,730	1,540	1,460	1,260
10	1,540	1,460	1,200	1,630	2,170	1,720	1,200	1,930	3,240	1,390	1,390	1,260
11	1,540	1,460	1,260	1,630	2,170	1,720	1,540	1,720	2,050	1,630	1,390	1,260
12	1,540	1,460	1,260	1,540	1,720	1,630	1,720	1,720	1,720	2,740	1,260	1,150
13	1,460	1,390	1,260	1,390	1,540	2,050	1,630	1,630	1,540	1,930	1,260	1,100
14	1,390	1,320	1,390	1,260	1,540	6,320	1,540	1,630	1,540	1,540	1,260	1,100
15	1,460	1,320	1,460	1,260	1,390	9,060	1,630	1,720	2,440	1,630	1,200	1,100
16	1,460	1,260	1,460	1,320	1,390	5,920	2,170	1,930	2,170	1,540	1,150	1,060
17	1,540	1,260	1,460	1,390	1,390	4,160	1,930	1,930	1,720	1,460	1,150	1,260
18	1,930	1,260	1,390	1,320	1,390	3,420	1,720	1,720	1,540	2,300	1,150	1,390
19	1,930	1,390	1,390	1,390	1,390	2,900	1,540	1,720	1,540	1,820	1,100	1,260
20	1,720	1,930	1,320	1,540	1,540	2,740	1,540	2,440	1,540	1,540	1,200	1,150
21	1,540	1,720	1,320	1,390	1,930	2,590	1,460	4,730	1,540	1,390	1,200	1,100
22	1,540	1,540	1,260	1,390	1,720	2,740	1,540	3,070	1,390	1,540	1,100	1,060
23	3,070	1,390	1,260	1,720	1,540	3,420	1,540	2,440	1,320	1,630	1,150	1,060
24	5,320	1,390	1,260	1,930	1,540	4,730	1,460	2,170	1,390	1,390	1,200	1,100
25	3,070	1,390	1,260	2,170	1,460	3,420	1,540	1,930	2,590	1,320	1,390	1,150
26	2,300	1,320	1,260	1,930	3,420	2,740	1,630	1,720	7,350	1,320	1,260	1,260
27	1,930	1,260	1,260	1,820	4,920	3,070	1,540	1,720	6,120	1,390	1,150	1,390
28	1,820	1,390	1,260	1,720	10,400	2,740	1,720	1,630	4,920	1,390	1,150	1,820
29	1,820	1,390	1,260	1,540	-------	[a]2,280	2,440	1,720	3,070	1,390	1,150	1,540
30	1,720	1,320	1,260	1,390	-------	1,820	1,930	1,720	2,300	1,320	1,150	1,390
31	1,630	-------	1,260	1,390	-------	1,720	-------	2,050	-------	1,540	1,100	-------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1929–30						
1	2,050	2,170	1,540	1,930	1,540	[a]1,200
2	20,200	2,300	1,930	1,930	1,540	[a]1,200
3	7,980	2,740	2,590	1,930	1,720	[a]1,200
4	3,780	3,070	2,050	1,930	2,300	[a]1,100
5	2,590	2,740	1,930	1,820	3,420	[a]1,150
6	2,170	2,440	1,930	1,720	2,740	1,260
7	1,930	2,170	1,930	1,720	2,300	2,170
8	1,720	2,170	1,820	1,820	1,930	4,350
9	1,540	1,930	1,720	1,720	1,720	2,900
10	1,460	1,820	1,630	1,720	1,720	2,170
11	1,390	1,720	1,630	1,630	1,540	1,930
12	1,320	1,720	1,630	1,540	1,540	2,050
13	1,320	2,170	1,540	1,540	1,540	1,930
14	1,390	2,170	1,540	1,540	1,630	1,720
15	1,320	2,170	1,540	1,630	1,540	1,720
16	1,320	2,590	1,540	1,720	1,460	1,630
17	1,320	2,590	1,720	1,630	1,460	1,540
18	1,260	8,620	1,820	1,540	1,390	1,540
19	1,260	5,320	2,740	1,540	1,390	2,440
20	1,260	3,600	2,900	1,540	1,390	2,740
21	1,540	2,740	2,170	1,540	1,390	2,440
22	13,400	2,440	1,930	1,630	1,320	1,930
23	6,120	2,440	2,050	1,720	1,320	1,720
24	3,780	2,170	1,820	1,540	1,390	1,720
25	2,590	2,170	1,720	1,460	1,390	1,630
26	2,170	2,050	1,720	1,390	1,320	1,630
27	1,930	2,300	1,930	1,540	1,320	1,540
28	1,720	2,170	2,170	1,540	[a]1,250	1,540
29	1,930	1,930	2,440	1,540	-------	1,460
30	2,170	1,820	2,170	1,390	-------	1,390
31	2,170	-------	2,050	1,390	-------	1,390

[a] Estimated.

Monthly discharge, in second-feet, of New River near Baywood, Va., 1928–1930

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928					
January 9–31	2,740	1,300	1,620	1.62	1.39
Febuary 1–16	2,300	1,390	1,680	1.68	1.00
April 13–30	4,540	1,720	2,590	2.59	1.73
May	3,070	1,390	1,990	1.99	2.29
June	2,900	1,460	1,840	1.84	2.05
July 15–31	1,720	1,100	1,290	1.29	.82
August	17,300	1,050	3,480	3.48	4.01
September	12,200	2,170	4,040	4.04	4.51
1928–29					
October	5,320	1,390	2,040	2.04	2.35
November	1,930	1,260	1,460	1.46	1.63
December	1,460	1,200	1,310	1.31	1.51
January	2,440	1,260	1,570	1.57	1.81
February	10,400	1,260	2,080	2.08	2.17
March	9,060	1,630	3,740	3.74	4.31
April	2,440	1,200	1,580	1.58	1.76
May	4,730	1,630	2,080	2.08	2.40
June	7,350	1,320	2,370	2.37	2.64
July	3,070	1,320	1,730	1.73	1.99
August	2,440	1,100	1,290	1.29	1.49
September	1,820	1,060	1,230	1.23	1.37
The year	10,400	1,060	1,870	1.87	25.43
1929–30					
October	20,200	1,260	3,160	3.16	3.64
November	8,620	1,720	2,620	2.62	2.92
December	2,900	1,540	1,930	1.93	2.22
January	1,930	1,390	1,640	1.64	1.89
February	3,420	1,250	1,660	1.66	1.73
March	4,350	1,100	1,820	1.82	2.10

NEW RIVER NEAR GALAX, VA.

LOCATION.—Water-stage recorder at highway bridge at Old Town, 3½ miles southwest of Galax, Carroll County.
DRAINAGE AREA.—1,130 square miles.
RECORDS AVAILABLE.—November, 1929, to September, 1930.
EXTREMES.—Maximum discharge during period of record, 5,050 second-feet Mar. 8 (gage height, 2.59 feet); minimum, 247 second-feet July 9 (gage height, 0.56 foot).
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	------	a 2,000	2,570	1,830	1,340	1,480	1,160	922	512	447	408
2	------	a 2,800	2,490	1,920	1,380	1,400	1,160	870	499	395	395
3	------	a 2,500	2,600	2,040	1,340	1,460	1,160	819	499	351	373
4	------	a 2,200	2,540	2,880	1,240	1,880	1,140	803	473	318	351
5	------	a 2,600	2,260	4,220	1,300	1,810	1,090	771	460	296	351
6	------	a 3,000	2,010	3,630	1,320	1,900	1,140	787	447	285	408
7	------	a 2,700	1,920	3,000	2,370	3,690	1,570	922	434	373	460
8	------	a 2,400	1,970	2,600	4,710	3,230	1,320	975	384	351	473
9	------	a 2,250	1,990	2,240	3,560	2,470	1,610	940	351	362	555
10	------	2,160	1,970	2,160	2,600	2,110	1,420	940	362	460	570
11	------	2,060	1,880	2,080	2,280	1,900	1,380	922	351	362	540
12	------	2,040	1,740	1,920	2,280	1,790	1,500	835	351	373	540
13	------	1,920	1,650	1,880	2,180	1,720	1,500	787	340	362	585
14	------	1,900	1,680	1,900	2,080	1,630	1,400	803	340	329	675
15	------	1,940	1,810	1,850	1,990	1,590	1,440	870	384	384	630
16	------	1,940	2,010	1,700	1,880	1,530	1,300	870	434	707	525
17	------	2,140	1,830	1,610	1,790	1,480	1,180	803	486	803	630
18	------	2,180	1,630	1,590	a 2,400	1,420	1,200	1,050	512	555	787
19	------	3,230	1,570	1,590	a 3,400	1,550	1,680	992	512	499	660
20	------	a 3,000	1,680	1,570	a 3,000	1,550	1,900	803	460	600	585
21	------	a 2,700	1,700	1,550	2,790	1,400	1,530	723	395	600	615
22	------	a 2,400	1,740	1,530	2,470	1,420	1,260	691	351	818	691
23	------	a 2,300	1,850	1,480	2,210	1,400	1,120	660	307	2,320	660
24	2,910	a 2,100	1,720	1,480	1,970	1,320	1,090	630	296	1,480	600
25	2,850	a 1,900	1,570	1,590	1,880	1,260	1,090	600	318	870	555
26	2,680	a 1,700	1,610	1,530	1,940	1,220	1,030	600	307	675	691
27	3,080	a 2,700	1,650	1,480	1,880	1,200	975	600	318	615	615
28	3,290	a 2,500	1,650	1,400	1,720	1,160	940	570	395	645	555
29	3,000	3,720	1,700	------	1,650	1,140	922	540	615	600	512
30	2,520	2,820	1,630	------	1,610	1,140	1,050	525	739	570	460
31	------	2,650	1,720	------	1,550	------	992	------	585	460	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
November 24–30	3,290	2,520	2,900	2.57	0.67
December	3,720	1,700	2,400	2.12	2.44
January	2,600	1,570	1,880	1.66	1.91
February	4,220	1,400	2,010	1.78	1.85
March	4,710	1,240	2,130	1.88	2.17
April	3,690	1,140	1,680	1.49	1.66
May	1,900	922	1,270	1.12	1.29
June	1,050	525	787	.696	.78
July	739	296	426	.377	.43
August	2,320	285	589	.521	.60
September	787	351	548	.485	.54

a Estimated.

NEW RIVER AT IVANHOE, VA.

LOCATION.—Water-stage recorder at Ivanhoe, Wythe County, 2½ miles above mouth of Cripple Creek.

DRAINAGE AREA.—1,330 square miles.

RECORDS AVAILABLE.—December, 1929, to September, 1930.

EXTREMES.—Maximum discharge during period, 13,700 second-feet Mar. 25 (gage height, 8.41 feet); minimum, 92 second-feet Sept. 8 (gage height, 0.89 foot).

REMARKS.—Records good. Flow regulated by power plants at Byllesby, 3 miles above.

Daily and monthly discharge, in second-feet, 1929–30

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		2,730		1,570	1,860	1,360	620	606	425	490
2		2,500		1,980	1,720	1,500	1,120	584	734	362
3		2,660		1,780	1,540	1,330	816	663	368	479
4		2,620		1,180	1,480	968	830	248	320	333
5		2,360		1,560	1,880	1,420	608	376	396	244
6		2,180	4,200	1,580	1,860	962	831	339	670	388
7		2,120	3,540	2,120	3,340	1,590	1,010	328	494	220
8		2,320	2,740	4,460	3,820	1,570	672	722	530	505
9		2,360	2,260	4,310	2,560	1,600	1,220	428	434	667
10		2,200	2,380	3,550	2,260	1,710	1,040	370	213	594
11		2,200	2,170	2,770	2,030	1,300	824	295	544	651
12		1,370	2,070	2,320	2,000	1,730	1,040	547	494	634
13		2,430	2,100	2,280	1,360	1,710	858	382	443	650
14		1,400	1,900	2,350	1,870	1,690	1,010	262	378	470
15		2,060	2,180	2,370	1,920	1,040	357	504	584	962
16	1,780	2,220	1,840	1,570	1,660	1,680	827	516	456	848
17	2,180	2,110	1,720	2,160	1,680	1,460	757	524	296	876
18	2,020	1,730	1,980	1,910	1,360	791	a 1,500	547	1,040	481
19	2,620		1,520	2,520	1,610	1,970	a 1,100	769	794	892
20	3,480		1,670	3,460	1,390	2,230	1,000	426	687	568
21	3,060		1,900	3,080	1,820	1,730	a 1,150	404	632	500
22	2,460		1,160	3,140	1,580	1,190	a 224	506	998	777
23	2,340		1,740	2,290	1,640	1,130	a 760	522	2,050	924
24	2,280		1,700	1,620	1,480	1,270	a 628	517	1,520	881
25	2,060		1,720	1,660	1,220	759	640	526	1,210	594
26	1,990		1,710	3,090	925	1,180	678	391	976	710
27	1,820		1,610	1,290	1,300	1,160	892	350	530	792
28	3,070		1,440	1,770	1,720	953	332	184	432	a 620
29	2,840			2,290	1,120	1,120	234	510	782	455
30	3,710			1,060	1,020	858	829	977	824	726
31	2,740			1,840		1,230		726	745	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
December 16–31	3,710	1,780	2,530	1.90	1.13
January 1–18	2,730	1,370	2,200	1.65	1.10
February 6–28	4,200	1,160	2,050	1.54	1.32
March	4,460	1,060	2,290	1.72	1.98
April	3,820	925	1,770	1.33	1.48
May	2,230	759	1,360	1.02	1.18
June	1,500	224	817	.614	.68
July	977	184	485	.365	.42
August	2,050	213	677	.509	.59
September	962	220	610	.459	.51

a Estimated.

NEW RIVER AT ALLISONIA, VA.

LOCATION.—Water-stage recorder one-fourth mile below mouth of Big Reed Island Creek and half a mile above Allisonia, Pulaski County.

DRAINAGE AREA.—2,190 square miles.

RECORDS AVAILABLE.—September, 1929, to September, 1930.

EXTREMES.—Maximum stage during period, 11.14 feet Oct. 2 (discharge not determined); minimum discharge, 412 second-feet Sept. 7 (gage height, 0.47 foot).

REMARKS.—Records good except those estimated and those above 15,000 second-feet, which are fair. Flow regulated by operation of power plants at Byllesby.

Daily and monthly discharge, in second-feet, 1929–30

Day	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	------	2,750	*3,200	*2,600	*4,100	2,020	2,120	2,720	1,710	1,430	1,010	798	656
2	------	38,300	4,160	*4,000	*3,800	2,360	*2,500	2,490	1,890	1,500	854	725	654
3	------	18,600	4,290	*3,800	*4,000	2,740	*2,300	2,490	1,790	1,000	920	851	575
4	------	8,910	6,190	*3,600	*3,700	5,220	*1,700	2,040	1,360	1,370	716	524	615
5	------	5,870	5,250	*3,600	*3,400	7,860	*2,200	2,480	2,040	1,050	555	538	535
6	------	4,280	*4,300	*4,200	*3,200	6,740	*2,200	3,160	1,390	1,210	719	718	453
7	------	2,930	*3,800	*3,900	3,520	5,520	4,280	4,910	1,800	1,300	596	884	595
8	------	3,080	*3,200	*3,300	3,400	4,240	7,150	5,610	1,900	1,320	820	782	506
9	------	2,840	*3,400	*3,200	3,610	3,420	6,330	3,780	2,140	1,630	792	774	608
10	------	2,300	*3,000	*3,200	3,130	3,630	5,010	3,010	2,200	1,300	649	619	683
11	------	2,070	*3,200	*3,100	3,070	3,200	3,750	2,940	1,940	1,080	535	593	673
12	------	*2,000	*3,200	*3,000	*2,200	3,080	4,390	2,960	2,000	1,400	637	908	709
13	------	*2,000	*3,200	*2,900	*3,300	3,120	3,450	2,160	2,230	1,230	769	777	684
14	------	*2,100	4,300	*2,900	*2,300	2,590	3,480	2,750	2,170	1,350	567	614	816
15	------	*1,800	4,650	*2,500	*2,900	3,030	3,360	2,550	1,750	1,080	664	823	648
16	------	*2,000	4,980	*2,600	*3,000	2,540	2,120	2,370	2,190	1,090	854	803	799
17	------	*1,600	5,330	*3,000	*2,800	2,900	3,650	2,230	2,070	1,330	747	705	856
18	------	*1,600	16,500	*2,600	*2,500	2,440	2,890	2,360	1,400	1,930	805	975	810
19	------	*1,800	11,500	4,600	2,060	2,580	3,350	2,000	3,100	1,340	948	1,110	804
20	------	*1,400	7,420	*4,900	3,050	2,180	4,670	2,110	3,220	1,180	829	907	943
21	------	*1,600	6,470	*4,100	2,980	2,560	4,490	2,340	2,440	1,310	633	877	764
22	------	19,000	5,210	*3,700	2,760	2,070	4,510	2,320	1,860	1,070	676	953	851
23	------	13,000	4,690	*3,500	3,110	2,460	3,410	2,040	1,700	1,090	743	1,780	1,020
24	------	7,120	4,460	*3,200	2,580	2,420	2,170	2,010	1,810	1,270	715	1,880	1,000
25	------	4,990	4,460	*2,900	2,510	2,260	3,250	2,070	1,270	936	795	1,370	886
26	1,780	*3,900	4,130	*3,500	2,070	2,780	2,920	1,530	1,740	918	670	1,310	966
27	1,680	*3,400	3,970	*3,600	3,260	2,230	3,170	1,670	1,310	913	626	1,100	746
28	1,810	*3,400	4,170	*5,600	2,810	2,100	2,320	2,200	1,430	938	688	752	951
29	2,640	*3,500	4,530	*4,900	2,570	------	3,410	1,890	1,480	677	603	680	627
30	2,140	*3,700	3,830	5,500	2,700	------	2,500	1,470	1,610	857	1,070	965	870
31	------	*3,700	------	*4,100	2,710	------	2,150	------	1,530	------	854	1,020	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	38,300	1,400	5,660	2.58	2.97
November	16,500	3,000	5,030	2.30	2.57
December	5,600	2,500	3,620	1.65	1.90
January	4,100	2,060	3,000	1.37	1.58
February	7,860	2,020	3,260	1.49	1.55
March	7,150	1,700	3,390	1.55	1.79
April	5,610	1,470	2,560	1.17	1.30
May	3,220	1,270	1,890	.863	.99
June	1,930	627	1,210	.553	.62
July	1,070	535	744	.340	.39
August	1,880	524	907	.414	.48
September	1,020	453	743	.339	.38
The year	38,300	453	2,670	1.22	16.52

* Estimated.

NEW RIVER AT EGGLESTON, VA.

LOCATION.—Water-stage recorder at highway bridge at Eggleston, Giles County.
DRAINAGE AREA.—2,940 square miles.
RECORDS AVAILABLE.—October, 1914, to September, 1930.
EXTREMES.—Maximum discharge during year, about 72,300 second-feet Oct. 2 (gage height, 22.44 feet); minimum, 702 second-feet Aug. 6 (gage height, 2.41 feet).

1914–1930: Maximum discharge, about 152,000 second-feet July 16, 1916 (gage height, 39.5 feet); minimum, 580 second-feet July 21, 1926 (gage height, 2.2 feet).

Flood of 1878 reached stage of about 40 feet.

REMARKS.—Records good. Discharge Dec. 4–8, 24–27, Jan. 26, 31, Feb. 1, 2 estimated because of ice. Flow regulated by operation of power plants at Byllesby.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,290	4,970	4,180	5,430	3,100	2,770	3,040	2,040	2,130	1,050	1,120	1,380
2	42,100	4,510	3,060	5,420	2,900	2,850	3,140	2,360	1,740	1,310	1,120	961
3	39,000	5,290	4,890	5,170	4,040	3,190	3,100	2,520	1,850	1,110	1,010	905
4	14,100	6,800	5,000	5,490	6,280	2,970	3,260	2,340	1,450	1,170	1,090	825
5	8,440	7,770	4,800	4,950	11,000	2,370	3,000	1,920	1,690	1,080	850	854
6	6,760	6,080	4,500	4,460	9,660	2,900	3,640	2,520	1,420	845	790	951
7	5,030	5,600	4,900	4,360	7,560	2,970	5,050	2,190	1,700	950	1,640	753
8	3,790	5,000	4,800	4,280	6,270	7,740	6,970	2,680	1,840	860	1,670	801
9	4,090	4,280	4,080	4,490	5,210	8,120	5,440	3,090	1,720	952	1,470	774
10	3,680	4,480	4,010	4,340	4,510	6,520	4,330	3,040	2,360	1,130	1,270	969
11	3,420	3,940	4,140	3,970	4,530	5,660	3,990	2,890	2,120	898	1,010	1,070
12	3,000	4,260	3,900	3,900	4,100	4,840	3,500	2,480	1,600	830	784	1,060
13	3,120	4,310	3,740	3,160	3,970	4,600	3,510	2,820	1,820	788	1,040	1,150
14	2,880	4,370	3,800	4,380	4,050	4,290	2,800	2,840	1,670	1,010	1,020	1,100
15	3,070	5,430	3,900	3,380	3,810	4,290	3,400	2,760	1,780	908	956	1,200
16	2,670	7,230	3,430	3,910	3,870	4,070	3,310	2,240	1,520	880	983	1,020
17	2,940	7,180	3,580	4,040	3,460	3,200	3,040	2,600	1,370	1,120	1,120	1,350
18	2,480	21,000	3,930	3,760	3,390	3,980	3,030	2,560	2,660	1,030	1,000	1,380
19	2,420	20,700	4,210	3,410	3,580	3,760	2,910	2,220	2,640	1,050	1,160	1,280
20	2,680	11,800	6,120	2,590	3,200	4,360	2,840	4,520	1,940	1,140	1,460	1,080
21	2,120	8,320	6,110	3,690	3,190	5,340	2,710	3,800	1,850	1,160	1,190	1,230
22	19,300	7,700	4,920	3,860	3,370	4,770	3,050	2,970	1,770	845	1,160	1,020
23	28,300	6,340	4,780	3,670	2,780	4,910	2,810	2,280	1,510	887	1,330	1,020
24	13,100	5,840	4,500	3,880	3,300	3,830	2,740	2,140	1,250	896	2,540	1,330
25	7,870	5,080	4,200	3,310	3,280	3,100	2,560	2,220	1,650	958	1,980	1,250
26	5,910	5,540	3,900	2,900	3,190	3,840	2,380	1,680	1,350	967	1,680	1,160
27	5,300	5,260	4,100	2,670	3,140	3,950	2,100	2,150	1,250	998	1,540	1,150
28	4,620	5,040	4,620	4,350	2,940	2,960	2,270	1,820	1,400	871	1,440	1,050
29	4,590	5,070	7,020	3,600	-------	3,090	2,780	1,850	1,360	902	1,120	1,160
30	4,760	5,040	6,670	3,480	-------	3,550	2,380	2,120	969	970	940	795
31	5,060	-------	6,660	2,900	-------	2,540	-------	2,120	-------	1,390	1,260	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	42,100	2,120	8,380	2.85	3.29
November	21,000	3,940	6,810	2.32	2.59
December	7,020	3,060	4,600	1.56	1.80
January	5,490	2,590	3,970	1.35	1.56
February	11,000	2,780	4,420	1.50	1.56
March	8,120	2,370	4,110	1.40	1.61
April	6,970	2,100	3,300	1.12	1.25
May	4,520	1,680	2,510	.854	.98
June	2,660	969	1,710	.582	.65
July	1,390	788	999	.340	.39
August	2,540	784	1,250	.425	.49
September	1,380	753	1,070	.364	.41
The year	42,100	753	3,590	1.22	16.58

NEW RIVER AT GLENLYN, VA.

LOCATION.—Water-stage recorder at steam power plant of Appalachian Electric Power Co., one-fourth mile southeast of Glenlyn, Giles County, and one-third mile above mouth of East River.

DRAINAGE AREA.—3,770 square miles.

RECORDS AVAILABLE.—August, 1927, to September, 1930.

EXTREMES.—Maximum stage during year, 16.75 feet Oct. 3 (discharge not determined); minimum discharge, 770 second-feet Sept. 8 (gage height, 2.10 feet). 1927–1930: Maximum stage, that of Oct. 3, 1929; minimum discharge, that of Sept. 8, 1930.

REMARKS.—Records good. Flow regulated by operation of power plants at Byllesby, 98 miles upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,840	6,170	5,340	7,130	3,870	3,250	2,810	2,390	2,030	1,170	1,450	1,340
2	31,600	5,750	4,550	6,730	3,530	3,210	3,580	2,460	2,280	1,520	1,220	1,280
3	57,600	6,750	5,260	6,580	3,980	3,660	3,510	2,720	1,700	1,460	1,050	1,000
4	18,100	11,600	6,160	6,900	7,550	3,520	3,900	2,640	1,800	1,370	1,210	950
5	10,900	11,100	5,900	6,380	16,200	3,140	3,480	2,360	1,780	1,450	1,070	930
6	8,020	8,590	5,050	5,550	13,800	3,240	4,140	2,610	1,680	1,190	870	950
7	6,150	7,540	6,700	5,770	10,600	4,470	6,650	2,420	1,600	1,090	970	1,010
8	4,590	6,590	5,860	5,350	8,740	10,800	8,330	2,590	1,810	1,220	1,970	820
9	4,490	5,380	5,490	5,290	7,140	11,300	7,410	3,090	2,060	1,110	1,620	890
10	4,180	5,570	4,660	5,290	6,060	8,830	5,660	3,460	2,170	1,330	1,460	880
11	3,650	4,770	4,970	4,660	5,950	7,480	4,800	3,120	2,330	1,300	1,200	1,160
12	3,390	5,040	4,630	4,480	5,340	6,410	4,560	3,020	2,080	1,130	1,030	1,080
13	3,450	5,210	4,480	3,960	5,120	6,050	4,310	2,600	1,840	1,010	960	1,190
14	3,390	4,910	4,450	5,000	5,160	5,410	3,530	3,100	2,030	1,110	1,160	1,220
15	3,030	5,930	4,440	4,160	4,640	5,160	3,950	2,930	1,900	1,260	1,100	1,170
16	3,130	8,320	4,620	4,260	4,830	5,080	3,710	2,860	2,070	1,110	1,040	1,060
17	2,850	8,880	4,030	4,620	4,260	3,970	3,520	2,770	1,410	1,260	1,260	1,410
18	2,940	30,600	4,270	4,560	4,410	5,060	3,370	2,560	2,040	1,380	1,120	1,450
19	2,600	29,100	5,210	3,720	4,050	4,640	3,460	2,730	3,340	1,260	1,040	1,460
20	2,820	16,400	7,080	3,470	4,170	5,090	3,070	4,650	2,340	1,280	1,530	1,160
21	2,780	11,400	7,610	4,090	3,710	6,310	3,340	4,410	2,010	1,380	1,380	1,390
22	17,600	9,610	6,590	4,430	4,010	5,650	3,150	3,390	1,840	1,180	1,280	1,190
23	34,200	8,320	6,030	4,300	3,700	5,720	3,260	2,830	1,970	1,020	1,260	1,090
24	15,800	7,400	5,480	4,500	3,930	4,640	2,940	2,560	1,360	1,100	1,830	1,270
25	9,870	6,830	5,250	3,880	3,750	3,600	3,030	2,350	1,350	1,150	2,430	1,410
26	7,240	6,750	4,710	3,630	3,640	4,500	2,850	2,310	1,920	1,110	1,880	1,340
27	6,490	6,530	5,170	3,530	4,010	4,430	2,480	2,070	1,800	1,120	1,680	1,140
28	5,430	6,480	5,600	4,370	3,440	4,010	2,550	2,030	1,660	1,090	1,490	1,270
29	5,500	6,310	8,380	4,330	-------	3,250	2,900	2,110	1,720	990	1,260	1,170
30	5,550	6,660	8,570	3,920	-------	4,320	2,710	2,000	1,320	1,070	1,130	1,060
31	5,630	-------	8,580	3,570	-------	3,780	-------	2,350	-------	1,170	1,270	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	57,600	2,600	9,540	2.53	2.92
November	30,600	4,770	9,020	2.39	2.67
December	8,580	4,030	5,650	1.50	1.73
January	7,130	3,470	4,790	1.27	1.46
February	16,200	3,440	5,700	1.51	1.57
March	11,300	3,140	5,160	1.37	1.58
April	8,330	2,480	3,900	1.03	1.15
May	4,650	2,000	2,760	.732	.84
June	3,340	1,320	1,910	.507	.57
July	1,520	990	1,210	.321	.37
August	2,430	960	1,330	.353	.41
September	1,460	820	1,160	.308	.34
The year	57,600	820	4,340	1.15	15.61

NEW RIVER NEAR HINTON, W. VA.

LOCATION.—Staff gage at site of Packs Ferry, 2 miles above Greenbrier River and 3½ miles south of Hinton, Summers County. Zero of gage 1,368.04 feet above mean sea level.

DRAINAGE AREA.—4,560 square miles.

RECORDS AVAILABLE.—December, 1923, to September, 1930.

EXTREMES.—Maximum gage height during year, 17.2 feet Oct. 3 (discharge not determined); minimum, 800 second-feet Aug. 7 (gage height, 2.00 feet).

1923–1930: Maximum gage height, that of Oct. 3, 1929; minimum, 680 second-feet Aug. 27, 1925 (gage height, 1.80 feet).

Floods of Apr. 21 and May 23, 1901, reached stage of about 24.2 feet. Flood of 1878 probably reached higher stage.

REMARKS.—Records good. Some regulation at low stages by power plants above station.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,250	7,620	6,100	8,580	4,450	4,450	3,030	3,030	2,610	1,160	1,600	1,230
2	22,600	7,300	5,800	7,620	4,720	4,210	4,210	2,610	3,250	1,030	1,300	1,600
3	66,900	9,620	4,990	7,940	4,990	4,450	4,210	2,810	1,910	1,450	1,300	1,160
4	23,700	18,500	5,260	8,260	12,300	4,450	4,990	2,610	2,250	1,160	1,160	970
5	13,100	15,200	5,530	8,260	24,700	3,970	4,990	3,030	1,910	1,300	1,230	910
6	9,980	11,100	6,100	8,580	19,500	3,730	5,260	2,610	2,080	1,300	1,030	910
7	7,620	8,900	6,100	8,260	13,900	3,490	8,580	3,030	1,830	970	800	1,030
8	6,100	7,940	7,000	5,800	11,500	13,500	10,700	2,810	2,080	1,030	1,750	910
9	4,990	7,000	7,940	5,530	8,580	15,700	9,980	3,490	2,250	1,030	1,830	855
10	4,450	6,100	5,530	5,800	7,940	11,900	7,300	3,730	2,080	910	1,750	910
11	4,450	6,100	5,800	5,530	7,000	9,620	6,100	3,490	2,610	1,300	1,600	910
12	4,450	6,100	5,800	5,530	6,400	8,260	6,100	3,490	2,250	1,030	1,300	1,300
13	4,450	6,100	5,530	6,100	5,800	7,940	4,990	3,030	1,910	910	1,030	1,230
14	3,970	5,800	5,260	4,720	6,100	7,400	4,990	3,490	2,250	910	1,100	1,300
15	3,490	7,300	5,260	4,990	5,530	7,050	4,450	3,730	1,910	1,160	1,300	1,300
16	3,970	9,980	5,800	4,450	5,800	6,480	4,450	3,490	2,080	1,030	1,160	1,450
17	3,250	10,700	4,450	5,260	5,530	5,800	4,450	3,490	1,750	970	1,160	1,230
18	3,730	45,700	4,990	5,260	4,990	6,000	4,990	3,030	1,680	1,300	1,380	1,520
19	2,810	37,700	7,000	4,450	4,990	6,210	4,450	3,030	3,030	1,160	1,160	1,600
20	3,030	21,600	7,940	4,450	5,530	6,810	4,210	4,990	2,810	1,300	1,380	1,300
21	3,490	14,300	9,260	3,970	5,260	7,800	4,450	5,530	2,080	1,160	1,600	1,380
22	8,580	12,300	8,260	4,720	4,720	7,500	3,490	4,450	2,080	1,450	1,300	1,450
23	41,700	8,580	7,300	4,720	4,990	6,610	3,970	3,970	2,080	1,030	1,300	1,160
24	19,500	8,580	6,700	4,450	4,450	5,910	3,970	3,250	1,680	970	1,450	1,100
25	11,900	8,580	5,530	4,450	4,990	5,150	3,030	2,810	1,600	1,030	2,610	1,450
26	8,580	7,300	5,800	3,970	5,260	5,090	3,250	3,030	1,910	1,160	2,160	1,300
27	7,620	7,300	6,400	4,720	4,990	5,590	2,810	2,080	1,750	1,100	1,750	1,450
28	7,000	7,940	7,620	3,490	4,450	5,020	2,610	2,610	1,450	1,600	1,750	1,160
29	6,100	7,620	9,980	5,260	-------	3,990	3,030	2,430	1,600	1,300	1,600	1,300
30	6,700	7,300	7,940	4,720	-------	4,780	3,730	2,250	1,600	1,030	1,300	1,160
31	7,940	-------	8,900	4,450	-------	4,720	-------	2,610	-------	1,030	1,030	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	66,900	2,810	10,600	2.32	2.68
November	45,700	5,800	11,500	2.52	2.81
December	9,980	4,450	6,510	1.43	1.65
January	8,580	3,490	5,620	1.23	1.42
February	24,700	4,450	7,480	1.64	1.71
March	15,700	3,490	6,570	1.44	1.66
April	10,700	2,610	4,890	1.07	1.19
May	5,530	2,080	3,230	.708	.82
June	3,250	1,450	2,080	.456	.51
July	1,600	910	1,140	.250	.29
August	2,610	800	1,420	.311	.36
September	1,600	855	1,220	.268	.30
The year	66,900	800	5,180	1.14	15.40

NEW RIVER AT CAPERTON, W. VA.

LOCATION.—Water-stage recorder at suspension footbridge at Caperton, Fayette County. Zero of gage, 938.00 feet above mean sea level.

DRAINAGE AREA.—6,830 square miles.

RECORDS AVAILABLE.—November, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 15,000 second-feet Oct. 3 (gage height, 21.10 feet); minimum, 826 second-feet Sept. 10 (gage height, 1.64 feet).

REMARKS.—Records good except those for Mar. 28 to July 11, and those above 30,000 second-feet, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,130	11,200	8,550	14,500	5,270	7,350	6,020	3,940	2,910	1,590	1,200	1,120
2	13,600	10,800	7,350	12,400	5,900	6,940	6,020	3,700	2,510	1,260	1,510	1,410
3	86,400	20,500	6,670	12,400	5,770	6,540	6,800	3,580	2,700	1,130	1,370	1,490
4	44,100	31,700	7,950	12,400	10,900	6,670	7,210	3,940	2,020	1,340	1,310	1,260
5	20,700	28,800	7,950	12,000	37,200	6,280	8,250	3,700	2,250	[a] 1,250	1,120	1,020
6	12,800	19,000	7,950	10,800	36,600	6,020	8,850	3,580	2,020	[a] 1,160	1,290	960
7	10,200	13,600	7,650	9,450	24,300	8,080	12,000	3,460	2,100	[a] 1,070	1,100	980
8	7,950	11,200	8,550	9,150	17,900	19,400	17,400	3,460	1,880	980	920	1,030
9	6,020	9,450	10,200	8,550	13,600	30,300	17,400	3,580	2,170	880	1,630	1,020
10	5,770	7,950	9,450	8,550	11,600	21,300	13,600	4,300	2,420	980	1,750	844
11	5,270	7,650	9,150	7,950	9,800	15,400	10,800	4,660	2,330	880	1,640	940
12	4,660	6,800	8,850	7,350	9,150	13,600	9,450	4,180	2,700	1,240	1,480	940
13	4,420	6,940	8,250	7,070	8,550	12,400	8,550	4,180	3,820	1,130	1,260	1,290
14	4,180	7,070	7,950	6,540	8,850	11,600	7,950	3,580	2,910	930	1,100	1,240
15	4,180	7,350	8,250	7,650	8,850	10,500	6,940	4,300	2,800	950	1,190	1,340
16	3,580	9,800	8,250	6,540	8,250	10,200	7,070	4,420	2,420	1,100	1,320	1,320
17	3,700	14,000	7,650	6,540	8,250	9,150	6,670	4,180	2,510	1,170	1,220	1,340
18	3,240	62,900	7,350	6,800	7,650	8,250	6,280	4,180	1,950	1,080	1,180	1,190
19	3,580	76,200	8,550	6,280	7,650	9,450	5,640	4,420	1,880	1,310	1,380	1,530
20	3,020	39,800	14,000	5,520	7,350	9,800	5,520	5,520	3,700	1,270	1,220	1,560
21	3,020	23,700	15,400	5,270	7,210	10,800	5,400	7,070	2,700	1,220	1,330	1,480
22	4,300	16,900	12,800	5,640	6,800	11,200	5,400	6,410	2,170	1,280	1,650	1,240
23	48,400	14,000	10,500	6,280	7,070	9,800	4,900	5,140	2,100	1,410	1,430	1,430
24	31,200	12,000	9,800	6,020	6,940	9,450	5,020	4,300	2,170	1,120	1,400	1,220
25	17,400	10,800	8,550	6,020	7,950	8,250	4,660	3,700	1,750	1,040	1,820	1,140
26	11,600	9,800	7,650	5,270	8,850	7,650	4,540	3,240	1,590	1,080	2,700	1,500
27	9,150	9,800	7,650	5,270	8,550	6,800	4,300	3,020	1,950	1,210	2,100	1,390
28	7,950	9,800	9,450	5,520	8,250	6,800	3,820	2,600	1,640	1,240	1,880	1,320
29	7,070	9,800	15,900	6,280	-------	6,670	3,700	2,700	1,550	1,510	1,670	1,170
30	7,650	9,450	20,200	6,410	-------	6,540	4,060	2,600	1,710	1,410	1,560	1,260
31	11,200	-------	16,400	5,900	-------	6,540	-------	2,420	-------	1,150	1,340	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	86,400	3,020	13,200	1.93	2.25
November	76,200	6,800	17,600	2.58	2.88
December	20,200	6,670	9,830	1.44	1.66
January	14,500	5,270	7,820	1.14	1.31
February	37,200	5,270	11,300	1.65	1.72
March	30,300	6,020	10,300	1.51	1.74
April	17,400	3,700	7,470	1.09	1.22
May	7,070	2,420	4,000	.586	.68
June	3,820	1,550	2,310	.338	.38
July	1,590	880	1,170	.171	.20
August	2,700	920	1,450	.212	.24
September	1,560	844	1,230	.180	.20
The year	86,400	844	7,280	1.07	14.48

[a] Estimated.

KANAWHA RIVER AT KANAWHA FALLS, W. VA.

LOCATION.—Water-stage recorder three-fourths mile below Kanawha Falls and 2 miles below Gauley Bridge, Fayette County. Zero of gage 602.78 feet above mean sea level, United States Geological Survey datum (elevation published in Water-Supply Paper 683 refers to the Kanawha River datum of the United States Army engineers).

DRAINAGE AREA.—8,300 square miles.

RECORDS AVAILABLE.—March, 1877, to September, 1916; October, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 153,000 second-feet Oct. 3 (gage height, 21.35 feet); minimum, 640 second-feet Aug. 15 (gage height, —0.95 foot).

1877–1916, 1928–1930: Maximum discharge, about 270,000 second-feet Sept. 14, 1878 (gage height, 37.8 feet); minimum, 640 second-feet Aug. 15, 1930.

REMARKS.—Records good except those above 50,000 second-feet, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,080	16,200	10,300	19,100	6,250	10,300	8,050	4,820	3,180	1,910	1,130	1,380
2	20,200	15,200	8,920	16,200	6,700	9,300	6,700	4,430	2,980	1,450	1,340	1,330
3	127,000	30,500	8,400	17,900	6,700	8,580	8,750	4,060	2,980	1,220	1,650	1,520
4	63,800	44,700	8,400	19,700	9,840	8,220	14,200	4,430	2,620	1,530	1,280	1,470
5	31,100	37,700	8,750	17,900	41,900	7,700	13,700	4,300	2,440	1,550	1,230	1,100
6	19,700	25,700	9,100	14,700	46,100	7,180	11,900	4,060	2,200	1,400	1,230	1,030
7	14,200	18,500	8,750	12,700	31,700	8,580	14,700	3,940	2,440	1,480	1,290	1,000
8	10,500	14,200	10,300	11,900	23,300	34,200	23,300	4,180	2,200	1,240	980	1,060
9	7,880	11,900	13,700	11,100	18,500	40,500	23,300	4,060	2,360	1,040	1,210	1,130
10	6,850	9,700	13,200	10,700	15,200	29,900	18,500	4,690	2,620	1,070	2,050	950
11	6,250	9,100	11,900	10,100	12,700	23,300	15,200	4,950	2,440	1,050	1,780	920
12	5,360	8,400	11,500	9,100	11,500	21,500	12,700	4,560	3,180	1,140	1,560	970
13	5,080	8,400	11,100	8,400	10,900	19,100	11,100	4,430	3,940	1,380	1,380	1,280
14	4,560	8,400	10,700	7,700	13,200	17,300	9,900	4,060	3,280	1,080	1,260	1,270
15	4,690	8,750	10,700	8,400	13,200	15,700	8,920	4,560	3,080	1,140	1,070	1,420
16	4,060	11,500	10,300	7,520	11,500	14,700	8,750	5,080	2,710	980	1,450	1,410
17	4,180	17,300	9,900	7,520	10,900	13,200	8,050	5,360	2,710	1,320	1,290	1,350
18	3,710	86,700	9,100	7,520	10,100	11,100	7,350	5,220	2,530	1,160	1,210	1,300
19	4,180	102,000	10,300	6,850	9,700	14,200	7,180	5,650	2,050	1,140	1,380	1,520
20	3,600	51,000	22,100	5,800	9,500	16,200	7,180	7,350	3,380	1,410	1,320	1,650
21	3,490	31,100	21,500	5,650	9,700	15,700	6,400	9,100	2,980	1,270	1,330	1,650
22	5,400	22,700	17,300	5,950	9,100	15,200	6,700	8,400	2,530	1,270	1,780	1,300
23	51,800	17,900	14,200	6,850	9,500	13,200	6,250	6,550	2,360	1,470	1,650	1,510
24	38,400	15,200	12,300	6,550	10,700	11,900	6,250	5,500	2,200	1,330	1,520	1,360
25	23,300	13,200	10,300	6,400	13,200	10,300	5,800	4,560	2,120	1,070	1,520	1,270
26	15,200	11,500	8,920	5,650	14,200	9,100	5,650	4,060	1,520	1,070	2,710	1,360
27	11,500	11,500	9,100	5,650	13,200	9,700	5,220	3,820	2,120	1,200	2,280	1,650
28	9,900	11,500	12,300	6,400	11,900	9,500	4,690	3,180	1,780	1,320	2,050	1,440
29	8,750	11,900	24,500	7,520	-------	8,920	4,430	3,380	1,720	1,360	1,980	1,230
30	8,920	11,500	26,900	8,220	-------	8,050	4,560	3,080	1,720	1,650	1,780	1,400
31	13,700	-------	22,100	7,350	-------	8,400	-------	2,890	-------	1,280	1,400	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	127,000	3,080	17,400	2.10	2.42
November	102,000	8,400	23,100	2.78	3.10
December	26,900	8,400	12,800	1.54	1.78
January	19,700	5,650	9,770	1.18	1.36
February	46,100	6,250	14,700	1.77	1.84
March	40,500	7,180	14,500	1.75	2.02
April	23,300	4,430	9,850	1.19	1.33
May	9,100	2,890	4,800	.578	.67
June	3,940	1,520	2,550	.307	.34
July	1,910	980	1,290	.155	.18
August	2,710	980	1,520	.183	.21
September	1,650	920	1,310	.158	.18
The year	127,000	920	9,430	1.14	15.43

NORTH FORK OF NEW RIVER AT CRUMPLER, N. C.

LOCATION.—Chain gage on State highway bridge at Crumpler, Ashe County, 6 miles above confluence with South Fork.

DRAINAGE AREA.—276 square miles.

RECORDS AVAILABLE.—July, 1928, to September, 1930. August, 1908, to September, 1916, at site half a mile above confluence with South Fork.

EXTREMES.—Maximum discharge during year, 6,670 second-feet Oct. 2 (gage height, 7.28 feet); minimum, 52 second-feet Aug. 5 (gage height, 0.74 foot).

1908–1916, 1928–1930: Maximum discharge, about 24,000 second-feet July 15, 1916; minimum, that of Aug. 5, 1930.

REMARKS.—Records fair. Slight regulation caused by operation of old gristmills.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	549	535	365	677	426	324	324	269	174	129	94	80
2	5,600	505	855	710	449	395	286	252	174	119	78	76
3	2,080	1,060	677	677	524	420	286	269	160	111	68	89
4	810	975	582	613	780	395	324	252	174	104	60	70
5	700	890	780	553	1,560	370	600	236	174	106	56	92
6	632	810	855	524	1,240	420	1,750	324	204	99	74	114
7	535	700	710	582	850	772	1,640	347	204	89	99	99
8	395	535	613	582	700	1,330	1,240	324	189	84	174	104
9	347	475	553	553	600	1,150	1,150	286	220	80	157	143
10	324	448	524	498	568	1,020	932	269	204	72	96	129
11	269	395	472	472	505	932	700	269	204	68	84	146
12	252	535	493	449	475	850	568	269	189	60	76	122
13	286	600	472	426	448	810	448	324	174	60	84	204
14	269	665	498	449	505	772	420	395	204	72	119	174
15	252	890	472	498	475	735	395	324	189	174	269	143
16	236	932	524	498	420	700	370	305	174	152	204	124
17	220	1,060	644	449	420	735	347	286	204	132	132	236
18	236	2,440	710	426	395	1,240	395	305	189	116	101	157
19	220	1,870	1,020	384	370	2,080	370	632	160	104	122	140
20	252	1,460	855	449	347	1,430	347	395	157	92	99	127
21	1,260	1,100	745	472	370	1,060	347	324	152	89	89	160
22	4,090	975	677	524	448	890	324	286	143	84	475	204
23	1,530	935	644	449	475	772	305	269	135	78	475	174
24	1,020	1,020	644	426	448	600	370	236	124	72	157	152
25	772	780	613	426	420	632	305	236	109	64	152	160
26	632	710	553	472	370	600	305	236	135	59	160	149
27	535	818	613	449	324	535	286	220	135	66	152	129
28	475	780	818	498	305	475	269	204	119	160	135	99
29	568	745	855	472	-------	420	286	204	114	236	122	87
30	890	472	895	426	-------	370	305	204	104	189	109	84
31	632	-------	818	405	-------	347	-------	189	-------	124	94	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,600	220	867	3.14	3.62
November	2,440	395	870	3.15	3.51
December	1,020	365	663	2.40	2.77
January	710	384	500	1.81	2.09
February	1,560	305	543	1.97	2.05
March	2,080	324	761	2.76	3.18
April	1,750	269	533	1.93	2.15
May	632	189	288	1.04	1.20
June	220	104	166	.601	.67
July	236	59	105	.380	.44
August	475	56	141	.511	.59
September	236	70	132	.478	.53
The year	5,600	56	464	1.68	22.80

CRIPPLE CREEK NEAR IVANHOE, VA.

LOCATION.—Chain gage at highway bridge 2 miles northwest of Ivanhoe, Wythe County, and 3½ miles above mouth.
DRAINAGE AREA.—148 square miles.
RECORDS AVAILABLE.—January to September, 1930.
EXTREMES.—Maximum discharge during period of record, 664 second-feet Feb. 5 (gage height, 2.42 feet); minimum, 30 second-feet Sept. 1, 3, 13, 25 (gage height, 0.28 foot).
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1930

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	------	82	83	88	76	54	42	37	30
2	------	112	83	93	71	58	34	40	42
3	------	143	80	116	74	52	42	38	34
4	------	404	80	111	64	54	37	44	41
5	------	635	80	105	70	58	44	36	34
6	------	404	80	141	70	56	37	34	42
7	------	302	118	284	135	70	46	48	42
8	126	250	302	234	111	59	36	35	40
9	122	205	219	166	91	52	36	41	38
10	124	178	178	143	109	56	42	42	36
11	122	166	166	130	100	57	37	42	45
12	107	154	143	124	107	56	44	40	37
13	100	143	126	116	124	58	37	40	34
14	103	141	130	103	114	52	42	40	35
15	132	135	135	101	114	55	42	43	39
16	105	122	118	111	100	54	42	35	36
17	98	122	122	77	86	54	42	44	54
18	101	111	128	91	105	54	47	46	40
19	89	116	178	89	234	49	40	49	45
20	93	98	267	82	205	47	34	42	43
21	112	107	219	82	154	50	38	42	37
22	107	105	178	82	114	48	42	66	35
23	96	94	154	78	100	49	39	56	35
24	89	93	141	72	88	52	42	39	41
25	89	93	132	74	80	49	35	46	32
26	91	89	267	71	77	48	38	42	42
27	98	86	122	74	76	48	38	42	43
28	89	96	109	74	68	46	48	43	41
29	98	------	98	72	71	49	38	42	37
30	89	------	101	66	68	47	43	38	34
31	103	------	100	------	68	------	36	33	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
January 8–31	132	89	103	0.693	0.62
February	635	82	171	1.16	1.21
March	302	80	143	.963	1.11
April	284	66	108	.730	.81
May	234	64	101	.682	.79
June	70	46	53.0	.357	.40
July	88	34	42.0	.284	.33
August	66	33	42.1	.284	.33
September	54	30	38.8	.262	.29

REED CREEK AT GRAHAMS FORGE, VA.

LOCATION.—Chain gage at highway bridge at Grahams Forge, Wythe County, 2½ miles below Glade Creek.

DRAINAGE AREA.—247 square miles.

RECORDS AVAILABLE.—July, 1908, to September, 1916; February, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,420 second-feet Oct. 2, Nov. 18 (gage height, 5.68 feet); minimum, 35 second-feet Sept. 30 (gage height, 1.20 feet).

1908–1916, 1927–1930: Maximum stage, 12.1 feet July 16, 1916 (discharge not determined); minimum discharge, about 5 second-feet Dec. 22, 1909 (gage height, 1.17 feet).

REMARKS.—Records good. Low-water flow may be affected slightly by operation of power plants above.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126	240	330	428	193	163	146	109	84	70	59	55
2	4,650	240	320	358	214	170	178	118	81	70	68	53
3	1,280	293	320	375	274	156	156	106	88	57	61	51
4	525	1,460	274	330	750	156	223	112	72	57	53	53
5	370	560	264	299	1,460	163	197	106	79	61	46	48
6	299	428	283	288	795	156	240	112	79	61	61	57
7	254	341	274	283	560	186	750	109	86	61	68	46
8	218	283	274	254	459	314	428	109	84	61	55	53
9	201	254	264	250	381	330	304	109	88	59	59	49
10	178	236	250	240	358	278	250	109	88	59	57	53
11	174	218	240	227	314	245	223	106	88	61	64	55
12	167	231	231	218	293	250	210	126	81	48	55	49
13	159	240	214	206	274	250	193	118	74	61	51	48
14	152	264	214	206	274	264	182	118	81	61	55	53
15	146	560	210	206	245	254	174	115	76	57	61	49
16	139	750	210	201	236	236	170	115	76	81	55	66
17	133	560	201	189	227	223	156	109	76	70	59	68
18	118	4,460	214	193	227	214	156	106	81	64	57	84
19	115	1,530	398	186	206	254	156	139	88	57	70	68
20	123	840	492	186	210	304	146	193	76	57	68	66
21	129	632	370	182	197	283	139	146	70	64	61	66
22	1,940	525	330	186	197	250	146	123	74	53	68	55
23	795	459	314	182	193	218	133	115	66	64	61	61
24	459	392	293	163	193	214	126	109	76	64	70	61
25	341	375	231	156	197	206	126	98	72	64	68	64
26	288	352	264	163	186	197	118	104	70	53	66	61
27	240	364	240	186	170	189	118	101	72	55	59	53
28	223	398	398	182	170	174	115	91	57	109	66	51
29	214	381	710	210	-------	159	115	91	68	72	70	59
30	227	309	560	206	-------	159	112	96	66	72	51	42
31	231	-------	459	210	-------	149	-------	98	-------	66	53	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,650	115	471	1.91	2.20
November	4,460	218	606	2.45	2.73
December	710	201	311	1.26	1.45
January	428	156	231	.935	1.08
February	1,460	170	338	1.37	1.43
March	330	149	218	.883	1.02
April	750	112	196	.794	.89
May	146	91	113	.457	.53
June	88	57	77.2	.313	.35
July	109	48	63.5	.257	.30
August	70	46	60.5	.245	.28
September	84	42	56.6	.229	.26
The year	4,650	42	228	.923	12.52

PEAK CREEK AT PULASKI, VA.

LOCATION.—Chain gage on Washington Avenue Bridge in Pulaski, Pulaski County, three-eighths mile below Track Fork.
DRAINAGE AREA.—68 square miles.
RECORDS AVAILABLE.—February, 1927, to September, 1930 (fragmentary).
EXTREMES.—Maximum discharge during year, 3,820 second-feet Oct. 2 (gage height, 10.68 feet); minimum, 0.3 second-foot Sept. 4, 5 (gage height, 1.36 feet).
1927–1930: Maximum discharge, that of Oct. 2, 1929; minimum, that of Sept. 4, 5, 1930.
REMARKS.—Records fair. Gage not read Dec. 15 to Aug. 30.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Aug.	Sept.	Day	Oct.	Nov.	Dec.	Aug.	Sept.
1	12	48	e 39	------	0.4	16	10	165	------	------	1.0
2	2,850	44	53	------	.4	17	9	148	------	------	2.0
3	140	66	41	------	.5	18	7	1,220	------	------	.8
4	55	210	44	------	.4	19	6	254	------	------	1.0
5	32	96	38	------	.5	20	7	132	------	------	.8
6	22	66	35	------	.8	21	7	89	------	------	.8
7	18	47	33	------	2.0	22	303	68	------	------	.7
8	14	33	34	------	.9	23	103	61	------	------	.7
9	13	28	28	------	.6	24	53	53	------	------	.9
10	12	23	28	------	.6	25	35	48	------	------	.8
11	11	21	28	------	.6	26	29	48	------	------	.8
12	10	56	25	------	.6	27	25	52	------	------	.8
13	9	96	24	------	.8	28	17	57	------	------	.7
14	9	103	26	------	.8	29	18	51	------	------	.6
15	9	330	------	------	.6	30	24	e 45	------	------	.6
						31	31	------	------	0.5	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,850	6	126	1.85	2.13
November	1,220	21	125	1.84	2.05
December 1–14	53	24	34.0	.500	.26
September	2.0	.4	.78	.011	.01

e Estimated.

LITTLE RIVER AT GRAYSONTON, VA.

LOCATION.—Chain gage at highway bridge at Graysonton, Montgomery County, 7 miles south of Radford and 7 miles above mouth.
DRAINAGE AREA.—302 square miles.
RECORDS AVAILABLE.—October, 1928, to September, 1930.
EXTREMES.—Maximum stage during period of record, 12.84 feet Oct. 2, 1929 (discharge not determined); minimum discharge, 74 second-feet Aug. 2, 1930 (gage height, 2.74 feet).
REMARKS.—Records good. Discharge estimated Jan. 31, Feb. 1, 1930, because of ice. Flow partly regulated by mill and dam 500 feet above.

Daily and monthly discharge, in second-feet, 1928–1930

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	-------	346	332	298	368	1,340	453	502	1,290	521	464	225
2	-------	361	305	326	353	892	420	1,160	504	690	351	199
3	-------	353	305	255	353	840	398	2,460	598	546	344	183
4	-------	353	292	261	326	738	383	739	581	448	365	188
5	-------	368	292	249	243	2,300	436	538	425	425	297	220
6	-------	346	292	659	220	1,460	428	456	395	344	266	242
7	-------	332	292	436	840	840	390	480	395	892	266	214
8	-------	346	272	346	640	630	390	440	504	456	358	209
9	-------	361	305	436	788	538	383	456	2,960	373	373	188
10	-------	353	305	361	1,220	469	376	464	1,290	410	297	183
11	-------	339	346	353	640	428	383	410	736	1,110	284	188
12	-------	332	326	255	445	405	436	395	572	690	365	199
13	-------	332	272	243	405	453	398	388	690	598	278	178
14	-------	332	326	261	326	1,280	361	538	540	488	284	183
15	-------	332	413	361	339	1,280	461	448	581	464	358	183
16	-------	332	298	332	305	840	946	425	644	425	284	178
17	-------	319	278	285	285	621	892	380	521	402	236	417
18	-------	319	326	285	312	511	583	373	472	402	230	402
19	-------	332	298	353	319	453	494	388	425	388	338	242
20	-------	469	266	332	353	494	453	644	1,690	358	236	230
21	-------	368	261	305	339	436	436	1,170	538	324	310	188
22	-------	332	292	278	278	428	602	644	598	365	209	178
23	-------	312	312	292	353	946	477	512	644	440	225	188
24	-------	319	319	292	353	1,400	405	454	504	365	230	204
25	-------	305	312	376	420	788	405	432	690	365	432	225
26	-------	266	319	398	892	630	511	440	2,960	425	324	230
27	390	292	261	332	346	574	420	417	1,350	388	236	242
28	390	319	278	326	3,730	494	738	440	788	338	214	220
29	390	305	255	243	-------	428	946	572	736	310	317	204
30	376	305	255	332	-------	502	574	456	581	425	248	209
31	376	-------	261	226	-------	469	-------	417	-------	440	214	-------

Daily and monthly discharge, in second-feet, of Little River at Graysonton, Va., 1928–1930—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	644	598	380	572	250	324	272	248	209	147	102	98
2	-------	589	546	521	472	338	266	230	214	139	126	93
3	2,780	644	739	589	529	297	284	236	199	130	83	101
4	1,110	644	496	538	1,110	278	317	225	183	126	88	96
5	840	581	496	432	1,170	242	278	230	183	122	86	528
6	788	529	456	417	788	310	410	290	214	122	169	131
7	739	521	448	456	538	1,290	840	236	236	122	552	98
8	690	521	480	432	448	840	432	225	236	115	372	103
9	644	521	417	417	380	598	365	236	236	108	211	110
10	598	464	380	395	432	464	338	242	266	105	104	127
11	589	472	373	395	358	395	317	214	235	105	101	124
12	572	529	365	373	395	365	297	209	242	95	101	134
13	555	555	373	358	358	358	278	214	214	91	96	204
14	555	488	388	344	388	338	290	225	225	98	90	147
15	555	1,110	388	425	365	331	304	236	254	143	96	143
16	564	946	351	395	344	344	304	220	230	112	101	152
17	555	644	338	365	304	331	278	242	236	112	108	143
18	496	2,240	351	380	317	331	284	260	598	98	112	152
19	504	1,000	365	324	338	380	304	464	307	91	116	143
20	496	690	425	402	331	351	278	472	220	105	128	147
21	512	581	351	440	324	324	278	304	189	91	108	143
22	-------	496	344	480	297	310	266	236	169	95	116	134
23	1,990	512	504	395	331	317	272	230	143	88	124	134
24	946	480	417	410	304	310	248	214	164	91	120	127
25	840	504	410	456	324	317	248	209	151	95	108	127
26	690	456	440	338	310	331	260	199	156	98	108	107
27	598	504	432	417	284	317	260	183	250	130	104	110
28	598	488	555	448	290	310	254	183	194	91	223	100
29	598	417	690	432	-------	290	248	204	160	95	128	114
30	644	380	529	236	-------	290	242	260	143	105	128	131
31	644	-------	564	200	-------	266	-------	242	-------	98	108	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October 27–31	390	376	384	1.27	0.24
November	469	266	336	1.11	1.24
December	413	255	299	.990	1.14
January	659	226	325	1.08	1.24
February	3,730	220	564	1.87	1.95
March	2,300	405	771	2.55	2.94
April	946	361	499	1.65	1.84
May	2,460	373	582	1.93	2.22
June	2,960	395	840	2.78	3.10
July	1,110	310	481	1.59	1.83
August	464	209	298	.987	1.14
September	417	178	218	.722	.81
1929–30					
November	2,240	380	637	2.11	2.35
December	739	304	438	1.45	1.67
January	589	200	412	1.36	1.57
February	1,170	250	431	1.43	1.49
March	1,290	242	383	1.27	1.46
April	840	242	310	1.03	1.15
May	472	183	246	.815	.94
June	598	143	221	.732	.82
July	147	88	108	.358	.41
August	552	83	139	.460	.53
September	528	93	140	.464	.52

NOTE.—Oct. 2 and 22, 1929, stage was above point to which rating curve is defined; discharge not determined.

WEST FORK OF COVE CREEK NEAR BLUEFIELD, VA.

LOCATION.—Staff gage at old tramway railroad bridge 10 miles southwest of Bluefield, Tazewell County.

DRAINAGE AREA.—5.5 square miles.

RECORDS AVAILABLE.—June, 1929, to September, 1930.

EXTREMES.—Maximum discharge during year, about 93 second-feet Nov. 3 (gage height, 2.88 feet); minimum, 0.4 second-foot several days in August and September (gage height, 0.04 foot).

1929–30: Maximum discharge, that of Nov. 3, 1929; minimum, that of August and September, 1930.

REMARKS.—Records fair. Discharge estimated because of ice Dec. 21–26.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.1	11.7	9.9	9.7	6.5	5.4	5.8	3.3	2.4	0.6	0.6	0.4
2	83	12.4	9.2	9.0	6.4	5.4	5.9	3.4	2.2	.6	.6	.4
3	35	49	8.5	13.9	7.2	5.1	7.8	3.6	2.0	1.2	.6	.4
4	20	63	8.5	13.9	28	4.8	9.5	3.0	1.8	.9	.6	.4
5	15.8	32	8.5	13.7	48	5.6	9.3	2.5	1.7	.7	.5	.4
6	10.5	21	8.5	12.0	32	5.1	14.6	2.6	1.6	.7	.5	.4
7	10.0	19.3	9.2	10.3	20.2	22	19.3	2.6	1.9	.7	.7	.4
8	7.7	19.3	11.4	9.2	14.6	32	15.0	2.4	1.9	.7	.8	.6
9	7.1	11.6	10.8	8.0	11.8	21	13.1	2.6	1.9	.7	1.6	.6
10	6.1	9.2	10.1	7.2	10.1	17.7	9.9	2.2	2.0	.7	1.1	.5
11	5.7	8.5	9.9	6.8	8.8	16.4	8.8	1.9	1.8	.6	.5	.5
12	5.3	8.5	8.5	5.8	7.6	14.2	8.0	2.6	1.9	.6	.5	.4
13	5.7	8.5	8.1	5.5	9.2	14.2	7.2	2.0	1.7	.6	.9	.4
14	4.7	8.5	8.5	5.6	8.5	14.4	6.5	2.5	1.5	.6	1.4	.6
15	4.4	15.0	8.5	5.6	8.6	12.0	6.4	2.5	1.7	.6	1.3	.5
16	4.4	22	6.5	5.4	9.0	11.2	5.6	2.0	1.5	.6	.7	.6
17	4.7	36	6.2	4.8	8.1	9.7	5.8	1.9	1.8	.6	.5	.6
18	4.7	63	6.5	4.8	8.6	9.9	5.8	3.8	2.0	.6	.7	.4
19	4.4	40	7.8	6.2	9.0	13.1	5.6	13.9	1.8	.5	.6	.5
20	4.4	28	7.6	5.9	8.6	14.6	4.9	12.7	1.5	.5	.4	.6
21	9.4	19.3	7.0	5.2	8.1	13.3	4.6	10.1	1.5	.5	.4	.5
22	47	15.5	6.5	5.8	7.8	11.0	4.8	7.8	1.5	.5	3.8	.5
23	27	13.1	6.0	5.2	8.3	9.3	4.6	7.0	1.5	.6	1.0	.5
24	17.3	12.0	5.0	7.5	7.5	8.1	4.1	6.7	1.5	.7	.6	.5
25	15.6	10.3	4.5	6.1	7.2	8.5	3.8	5.4	1.5	.7	.4	.5
26	12.1	9.9	4.5	6.2	6.8	7.3	4.1	4.6	1.5	.7	.5	.6
27	10.0	8.6	6.7	5.6	6.2	6.7	3.6	4.1	1.3	7.8	.5	.5
28	9.1	12.2	12.7	6.5	5.6	6.4	3.6	3.8	1.0	3.5	.5	.4
29	10.5	11.4	14.2	6.5	-------	6.5	3.6	3.7	.7	1.3	.5	.4
30	10.4	11.0	12.7	7.0	-------	6.5	3.4	3.4	.7	.6	.5	.4
31	11.7	-------	11.0	7.3	-------	6.5	-------	2.9	-------	.6	.4	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	83	3.1	13.8	2.51	2.89
November	63	8.5	20.3	3.69	4.12
December	14.2	-------	8.50	1.55	1.79
January	13.9	4.8	7.49	1.36	1.57
February	48	5.6	11.7	2.13	2.22
March	32	4.8	11.1	2.02	2.33
April	19.3	3.4	7.17	1.30	1.45
May	13.9	1.9	4.31	.784	.90
June	2.4	.7	1.64	.298	.33
July	7.8	.5	.99	.180	.21
August	3.8	.4	.78	.142	.16
September	.6	.4	.48	.087	.10
The year	83	.4	7.32	1.33	18.07

GREENBRIER RIVER AT ALDERSON, W. VA.

LOCATION.—Water-stage recorder installed Oct. 15, 1929, 400 feet above highway bridge at Alderson, Monroe County, half a mile above mouth of Muddy Creek. Prior to that date chain gage on bridge at same datum was used.
DRAINAGE AREA.—1,340 square miles.
RECORDS AVAILABLE.—July, 1895, to June, 1906; May, 1907, to September, 1930.
EXTREMES.—Maximum discharge during year, 36,300 second-feet Nov. 18 (gage height, 14.2 feet); minimum, 26 second-feet Aug. 12 (gage height, 1.65 feet).
1895–1930: Maximum discharge (estimated), 60,000 second-feet Mar. 13–14, 1918 (gage height, 22.0 feet); minimum, that of Aug. 12, 1930.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,090	2,460	[a] 1,520	3,200	620	2,080	889	570	237	123	38	38
2	7,150	2,220	[a] 1,350	2,970	742	1,860	850	600	225	123	35	38
3	12,200	6,470	[a] 1,180	3,020	915	1,670	863	620	202	110	38	35
4	5,410	12,200	1,020	2,970	3,720	1,460	1,120	631	188	97	35	35
5	2,690	7,150	954	2,460	8,700	1,210	1,460	570	173	84	31	35
6	1,740	4,080	1,080	2,050	8,100	1,160	1,740	550	173	78	30	31
7	1,280	2,780	1,260	1,860	5,100	1,380	5,400	570	192	73	30	31
8	980	2,110	1,700	1,760	3,640	8,100	6,450	631	188	70	33	33
9	760	1,690	2,360	1,630	2,870	7,650	5,400	766	188	64	38	35
10	550	1,440	2,570	1,560	2,380	4,500	4,080	664	207	58	31	35
11	462	1,250	2,340	1,440	2,050	3,250	3,230	590	448	56	28	31
12	415	1,180	2,120	1,270	1,720	2,940	2,660	560	1,790	53	30	30
13	310	1,160	2,220	1,180	1,510	2,770	2,220	520	1,050	51	33	33
14	279	1,160	2,530	1,160	1,580	2,660	1,860	502	708	61	35	33
15	271	1,400	2,510	1,230	1,600	2,750	1,650	493	530	73	43	33
16	236	1,640	2,260	1,240	1,480	2,510	1,510	493	430	61	48	40
17	224	2,110	1,970	1,130	1,210	2,300	1,290	550	345	53	48	40
18	206	26,600	1,810	1,020	1,160	2,080	1,130	540	296	53	43	38
19	200	21,300	3,520	850	1,290	2,220	1,110	610	262	58	53	35
20	188	8,700	6,600	814	1,210	3,330	1,040	928	231	58	48	33
21	194	5,100	4,350	742	1,160	3,100	954	915	212	70	61	35
22	1,980	3,280	2,820	941	1,180	2,530	928	708	197	73	61	35
23	5,840	2,460	2,420	1,100	1,310	2,080	980	590	178	61	58	35
24	4,830	2,050	2,120	850	1,680	1,770	915	502	151	64	61	33
25	2,560	1,770	1,670	766	2,610	1,560	838	430	139	56	61	35
26	1,810	1,530	1,480	742	3,120	1,490	778	379	127	48	58	43
27	1,380	1,440	1,320	826	2,970	1,410	730	331	123	48	56	40
28	1,120	1,560	1,950	876	2,460	1,190	675	310	116	51	53	35
29	965	1,720	5,700	876	-------	1,050	631	289	116	56	48	30
30	980	1,680	5,250	730	-------	967	600	269	120	51	45	30
31	1,600	-------	3,810	664	-------	941	-------	250	-------	43	43	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,200	188	1,960	1.46	1.68
November	26,600	1,160	4,390	3.28	3.66
December	6,600	954	2,440	1.82	2.10
January	3,200	664	1,420	1.06	1.22
February	8,700	620	2,430	1.81	1.88
March	8,100	941	2,450	1.83	2.11
April	6,450	600	1,800	1.34	1.50
May	928	250	546	.407	.47
June	1,790	116	318	.237	.26
July	123	43	67.0	.050	.06
August	61	28	43.6	.033	.04
September	43	30	34.8	.026	.03
The year	26,600	28	1,480	1.10	15.01

[a] Estimated.

GAULEY RIVER AT ALLINGDALE, W. VA.

LOCATION.—Chain gage on Baltimore & Ohio Railroad bridge one-fourth mile south of Allingdale, Nicholas County, and just below mouth of Rockcamp Creek. Zero of gage is 3.08 feet higher than that of gage used 1908–1916.

DRAINAGE AREA.—248 square miles.

RECORDS AVAILABLE.—July, 1908, to September, 1916; October, 1929, to September, 1930.

EXTREMES.—Maximum discharge during year, about 10,400 second-feet Nov. 18 (gage height, 10.46 feet); minimum, 1.4 second-feet Sept. 24, 25 (gage height, 0.54 foot).

1908–1916, 1929–30: Maximum discharge, about 15,000 second-feet Jan. 30, 1911 (gage height, 16.1 feet, old datum); minimum, that of Sept. 24, 25, 1930.

REMARKS.—Records good except those for May 18 to June 2, June 11 to Sept. 30, and those estimated, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	-------	650	a330	710	211	508	346	167	50	11	2.8	7.8
2	-------	562	a325	840	211	410	562	203	47	9.6	2.6	6.3
3	-------	3,450	a320	1,500	207	337	840	199	45	9.6	2.0	6.6
4	-------	2,210	a315	1,180	395	390	1,420	154	29	8.7	1.8	5.5
5	-------	1,110	309	840	2,310	415	970	131	28	7.5	1.6	4.2
6	-------	840	301	650	1,180	395	808	196	29	6.9	1.6	4.0
7	-------	620	356	590	464	1,110	1,260	a216	52	6.3	2.8	3.5
8	-------	475	742	535	590	3,210	1,180	a200	52	5.8	27	3.5
9	-------	380	905	620	458	1,660	1,040	a180	50	4.8	27	3.2
10	-------	309	680	508	480	1,260	1,080	150	60	4.0	24	2.9
11	-------	361	590	441	375	1,260	1,040	122	372	3.5	21	2.6
12	-------	415	808	380	341	1,340	775	109	151	2.9	13	2.3
13	-------	370	938	337	508	1,040	590	98	97	2.8	10	3.0
14	-------	425	775	323	938	1,080	480	101	65	3.2	9.0	4.8
15	-------	508	710	314	742	970	508	131	47	2.8	.11	4.8
16	-------	840	562	287	590	872	436	185	42	9.0	122	4.0
17	-------	1,080	480	207	562	840	430	270	38	21	67	3.4
18	-------	8,600	469	207	390	840	380	172	49	17	45	2.8
19	-------	2,630	1,830	112	420	2,110	385	235	32	10	24	2.6
20	-------	1,340	1,500	112	469	1,260	327	338	29	8.1	18	2.3
21	73	905	938	a100	562	840	309	320	24	7.8	17	2.3
22	620	620	742	a85	620	620	332	235	20	6.9	13	1.9
23	1,260	535	620	a70	742	508	305	205	17	5.8	11	1.7
24	650	420	475	60	1,580	436	270	220	17	4.5	11	1.5
25	480	361	441	60	1,500	395	266	169	12	3.2	10	1.6
26	385	309	337	106	1,110	375	262	99	12	3.0	11	2.0
27	365	361	327	128	840	351	230	75	12	3.4	10	3.2
28	361	508	742	203	620	341	214	81	11	3.4	16	5.0
29	332	508	1,340	301	-------	420	214	87	12	4.2	20	9.9
30	356	337	905	314	-------	441	189	77	12	3.4	13	12
31	742	-------	775	214	-------	370	-------	65	-------	3.0	10	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
Oct. 21–31	1,260	73	511	2.06	0.84
November	8,600	309	1,070	4.31	4.81
December	1,830	301	674	2.72	3.14
January	1,500	60	398	1.60	1.84
February	2,310	207	693	2.79	2.90
March	3,210	337	852	3.44	3.97
April	1,420	189	582	2.35	2.62
May	338	65	167	.673	.78
June	372	11	50.4	.203	.23
July	21	2.8	6.55	.026	.03
August	122	1.6	18.6	.075	.09
September	12	1.5	4.04	.016	.02

a Estimated.

GAULEY RIVER NEAR SUMMERSVILLE, W. VA.

LOCATION.—Chain gage at Brocks Bridge, 2½ miles east of Summersville, Nicholas County, and 500 feet below Muddlety Creek.

DRAINAGE AREA.—686 square miles.

RECORDS AVAILABLE.—July, 1908, to September, 1916; November, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, about 38,000 second-feet Oct. 2 (gage height, 18.29 feet); minimum, 1.3 second-feet Aug. 10 (gage height, 0.64 foot).

1908–1916, 1928–1930: Maximum discharge, that of Oct. 2, 1909; minimum that of Aug. 10, 1930.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	2,220	a 800	1,920	a 700	1,400	1,090	430	182	20	6.2	28
2	11,500	1,830	a 1,100	2,320	640	1,240	1,240	430	154	20	5.2	20
3	20,900	7,650	a 1,100	2,960	615	1,020	2,220	392	140	19	4.0	17
4	7,040	7,240	a 1,000	3,550	1,090	880	4,800	358	124	18	1.8	15
5	4,340	4,800	a 700	2,630	5,780	640	3,190	340	102	17	1.7	13
6	2,630	2,630	a 700	1,920	3,930	1,090	2,420	358	92	15	2.0	12
7	1,740	2,120	a 900	1,560	2,520	3,070	3,070	450	124	13	1.6	9.6
8	1,240	1,400	2,020	1,480	1,920	9,310	3,310	430	124	11	1.9	8.6
9	880	1,090	2,740	1,740	1,480	4,640	3,070	375	106	9.8	1.9	6.9
10	730	880	2,120	1,480	1,480	3,430	2,740	340	112	7.8	1.4	6.2
11	590	950	1,740	1,240	1,160	3,430	2,420	310	325	7.4	20	5.4
12	495	1,090	1,920	1,160	1,090	4,060	1,920	295	358	4.0	20	4.7
13	450	950	2,320	1,020	1,480	3,430	1,560	325	222	5.7	21	5.4
14	410	1,020	2,020	880	2,740	3,070	1,240	310	157	8.1	23	6.2
15	375	1,320	1,830	880	2,220	2,850	1,240	392	126	8.6	24	5.2
16	325	2,120	1,560	790	1,240	2,320	1,160	495	102	11	24	4.2
17	358	2,630	1,320	615	1,400	2,220	1,090	790	83	12	72	4.2
18	392	24,500	1,320	640	1,240	1,920	1,090	730	85	7.8	100	5.4
19	340	8,320	3,550	a 500	1,160	5,280	950	950	83	29	70	4.7
20	358	4,200	4,640	a 400	1,240	3,930	950	1,240	75	22	50	5.9
21	265	2,630	2,850	a 500	1,480	2,740	820	1,090	66	19	40	5.4
22	1,480	1,830	2,120	a 700	1,560	2,020	820	820	55	17	34	5.2
23	4,060	1,560	1,650	a 500	1,740	1,240	880	615	46	16	32	3.4
24	2,220	1,240	1,240	392	3,670	1,020	760	518	39	15	24	2.8
25	1,740	1,020	950	410	3,930	1,090	590	450	34	13	22	2.8
26	1,480	880	880	a 400	2,960	1,320	590	375	30	11	22	2.2
27	1,160	950	880	a 400	2,220	1,090	565	325	28	12	20	5.4
28	1,090	1,400	2,020	640	1,740	1,090	518	295	23	12	18	5.2
29	1,020	1,480	4,490	a 1,200	-------	1,240	430	265	18	11	18	5.0
30	1,090	1,090	3,070	a 1,100	-------	1,320	450	250	19	11	17	6.9
31	2,320	-------	2,120	a 1,000	-------	1,240	-------	222	-------	7.6	30	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	20,900	82	2,360	3.44	3.97
November	24,500	880	3,100	4.52	5.04
December	4,640	700	1,860	2.71	3.12
January	3,550	392	1,190	1.73	1.99
February	5,780	615	1,940	2.83	2.95
March	9,310	640	2,410	3.51	4.05
April	4,800	430	1,570	2.29	2.56
May	1,240	222	483	.704	.81
June	358	18	108	.157	.18
July	29	4.0	13.3	.019	.02
August	100	1.4	23.5	.034	.04
September	28	2.2	7.73	.011	.01
The year	24,500	1.4	1,250	1.82	24.74

a Estimated.

GAULEY RIVER NEAR LEANDER, W. VA.

LOCATION.—Staff gage 100 feet below mouth of Ramsey Branch and 2⅓ miles by road from Leander, Fayette County.
DRAINAGE AREA.—1,230 square miles.
RECORDS AVAILABLE.—July, 1925, to March, 1930 (discontinued).
EXTREMES.—Maximum discharge during year, 48,000 second-feet Oct. 3 (gage height, 22.0 feet); minimum, 320 second-feet Oct. 1 (gage height, 3.6 feet).
1925–1930: Maximum discharge, that of Oct. 3, 1929; minimum, 26 second-feet Sept. 15, 1925 (gage height, 1.69 feet).
Flood of Mar. 13, 1918, reached stage of about 34 feet (discharge, about 112,000 second-feet).
REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	320	4,610	1,780	3,410	1,360	2,850
2	9,830	4,150	1,550	5,090	1,000	2,430
3	38,000	18,100	1,550	7,270	1,100	2,040
4	13,200	15,100	1,360	5,770	1,550	2,170
5	7,270	9,830	1,270	4,450	11,500	2,170
6	4,930	5,770	1,270	3,850	8,500	2,040
7	3,270	3,700	1,450	3,270	5,600	2,850
8	2,170	2,990	2,170	2,710	4,300	15,600
9	1,550	2,170	4,930	2,990	3,410	11,200
10	1,180	1,910	4,450	2,570	2,990	10,300
11	950	1,660	4,000	2,430	2,300	8,500
12	895	1,360	3,850	2,300	1,910	7,670
13	785	1,450	3,550	2,170	1,780	6,310
14	675	1,910	3,130	1,910	4,770	5,600
15	535	2,170	2,850	1,550	4,000	4,450
16	515	3,410	2,710	1,270	3,130	3,700
17	535	8,710	2,300	1,100	2,570	4,000
18	625	34,000	2,170	1,100	2,170	3,550
19	675	14,300	8,290	1,100	2,170	7,470
20	580	9,830	5,090	895	2,430	5,430
21	455	5,090	4,450	840	2,850	4,610
22	9,150	3,270	3,550	785	3,130	3,700
23	10,800	3,130	2,430	730	3,130	3,270
24	6,310	2,430	1,910	650	5,600	2,990
25	4,150	2,040	1,550	625	6,130	2,710
26	2,850	1,910	1,270	602	5,260	2,300
27	2,300	2,300	1,100	675	4,610	2,040
28	1,910	2,300	2,710	625	3,550	1,910
29	1,660	2,570	8,080	895	----------	2,170
30	2,170	2,040	4,610	950	----------	2,850
31	4,930	----------	3,850	1,450	----------	2,300

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	38,000	320	4,360	3.54	4.08
November	34,000	1,360	5,810	4.72	5.27
December	8,290	1,100	3,070	2.50	2.88
January	7,270	602	2,130	1.73	1.99
February	11,500	1,100	3,680	2.99	3.11
March	15,600	1,910	4,550	3.70	4.27

GAULEY RIVER ABOVE BELVA, W. VA.

LOCATION.—Water-stage recorder half a mile above Belva, Nicholas County.
DRAINAGE AREA.—1,340 square miles.
RECORDS AVAILABLE.—October, 1928, to September, 1930.
EXTREMES.—Maximum gage height during year, 20.3 feet Oct. 2 (discharge not determined; minimum, 5.0 second-feet Sept. 25 (gage height, 0.15 foot).
1930: Maximum gage height, that of Oct. 2, 1929; minimum discharge, that of Sept. 25, 1930.
REMARKS.—Records good except those above 20,000 second-feet, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	139	4,740	1,510	4,030	1,230	2,710	1,870	710	368	38	18	24
2	22,900	4,130	1,660	3,740	1,130	2,330	1,830	663	325	39	16	21
3	44,200	13,000	1,710	5,070	1,170	2,120	3,040	656	286	32	16	20
4	13,400	14,300	1,600	6,420	1,410	1,690	7,120	614	260	29	14	20
5	7,840	8,560	1,390	1,850	8,290	1,490	6,190	565	224	27	13	26
6	4,850	5,510	1,330	3,740	8,560	1,650	4,640	530	199	27	13	24
7	3,120	3,740	1,420	3,040	5,730	3,230	4,640	565	180	25	12	21
8	2,190	2,790	2,050	2,630	4,230	17,500	5,510	710	191	24	14	19
9	1,650	2,190	3,940	2,630	3,290	10,900	5,070	635	202	22	15	16
10	1,260	1,730	3,650	2,560	2,790	7,840	4,540	544	202	20	14	16
11	1,020	1,540	2,950	2,190	2,480	6,420	3,940	500	187	18	12	14
12	848	1,660	2,790	1,920	2,050	6,880	3,200	464	434	17	10	12
13	750	1,590	3,120	1,770	2,330	5,960	2,560	446	434	18	8.8	12
14	678	1,550	2,870	1,650	3,740	5,180	2,190	500	300	19	9.6	12
15	621	1,880	2,710	1,530	4,230	4,740	2,050	530	232	16	12	10
16	558	2,870	2,480	1,450	3,290	3,940	2,050	734	199	15	9.2	9.6
17	506	4,260	2,190	1,300	2,710	3,290	1,790	1,210	176	14	8.8	9.2
18	518	35,600	2,050	1,130	2,480	3,040	1,650	1,140	169	13	24	8.4
19	558	20,100	3,130	929	2,260	5,290	1,660	1,490	195	12	28	7.6
20	488	9,580	7,600	670	2,330	5,730	1,620	2,120	159	15	86	7.2
21	440	5,960	7,600	839	2,480	4,330	1,470	2,190	136	17	84	6.4
22	2,590	3,940	3,840	1,030	2,630	3,470	1,490	1,750	115	18	66	6.0
23	9,840	3,040	3,120	992	2,870	2,710	1,550	1,350	101	20	56	5.6
24	6,190	2,480	2,480	830	5,400	2,260	1,350	1,070	88	25	46	5.4
25	3,940	1,980	1,820	750	4,430	1,980	1,210	893	79	28	39	5.4
26	2,790	1,720	1,750	750	4,230	2,190	1,080	742	70	25	36	6.4
27	2,190	1,590	1,740	734	4,230	2,120	965	614	59	27	34	12
28	1,890	1,920	3,200	1,010	3,290	1,980	875	530	52	27	32	14
29	1,650	2,260	7,360	1,570	-------	2,050	806	488	47	25	29	15
30	1,790	2,050	6,190	1,720	-------	2,260	758	440	41	22	27	13
31	3,650	-------	4,740	1,510	-------	2,190	-------	404	-------	21	25	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	44,200	139	4,680	3.49	4.02
November	35,600	1,540	5,610	4.19	4.68
December	7,600	1,330	3,100	2.31	2.66
January	6,420	670	2,100	1.57	1.81
February	8,560	1,130	3,400	2.54	2.64
March	17,500	1,490	4,180	3.12	3.60
April	7,120	758	2,620	1.96	2.19
May	2,190	404	832	.621	.72
June	434	41	190	.142	.16
July	39	12	22.4	.017	.02
August	86	8.8	26.7	.020	.02
September	26	5.4	13.3	.0099	.01
The year	44,200	5.4	2,220	1.66	22.53

WILLIAMS RIVER AT DYER, W. VA.

LOCATION.—Water stage recorder installed June 11, 1930, at Dyer, Webster County, half a mile below Craig Run. Prior to that date staff gage at same site and datum was used.
DRAINAGE AREA.—128 square miles.
RECORDS AVAILABLE.—September, 1929, to September, 1930.
EXTREMES.—Maximum gage height during year, 12.0 feet Oct. 3 (discharge not determined); minimum, 1.0 second-foot Aug. 5 (gage height, 0.50 foot).
REMARKS.—Records good except those above 3,000 second-feet, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Sept.	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	------	36	372	------	172	81	30	7.7	e 2.3	6.8
2	------	e 6,500	1,890	------	258	81	30	7.1	1.9	5.9
3	------	e 9,360	1,800	------	505	81	23	6.5	1.8	5.3
4	------	e 2,700	1,980	------	1,040	60	22	5.6	1.3	4.8
5	------	1,110	1,550	------	485	60	19	5.3	1.1	4.4
6	------	705	830	------	528	128	18	4.8	2.0	4.0
7	------	600	505	------	830	150	24	4.4	29	3.2
8	------	485	390	------	705	105	20	4.0	22	3.6
9	------	372	338	------	575	87	18	3.2	21	4.2
10	------	258	200	------	625	79	177	2.9	17	4.2
11	------	174	128	------	550	73	167	2.7	12	4.4
12	------	122	66	550	408	66	73	2.4	8.8	4.0
13	------	87	66	485	320	54	50	2.7	7.1	4.2
14	------	87	390	600	273	54	41	4.8	7.7	4.2
15	------	72	445	550	304	73	34	26	75	3.6
16	48	63	425	536	288	118	29	17	63	3.4
17	68	81	2,270	518	258	87	26	11	33	3.2
18	109	73	5,440	546	228	96	26	8.0	23	2.9
19	68	54	2,700	1,390	228	139	27	7.1	18	2.6
20	49	53	2,170	650	214	162	23	5.9	15	2.4
21	42	49	1,630	485	174	118	19	4.8	14	2.2
22	37	625	1,250	355	187	94	18	4.6	12	2.1
23	36	765	900	258	162	73	16	4.6	11	1.9
24	35	390	------	243	139	54	14	4.6	11	2.0
25	30	338	------	225	128	60	12	4.2	11	3.2
26	29	273	------	243	107	58	11	4.0	9.2	5.6
27	24	258	------	179	107	48	11	3.6	24	12
28	22	288	------	162	89	48	11	3.4	20	15
29	19	320	------	187	89	39	10	3.0	12	11
30	18	355	------	192	73	39	9.2	2.8	9.2	7.4
31	------	338	------	197	------	30	------	2.6	7.7	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
September 16–30	109	18	42.3	0.330	0.18
1929–30					
October	9,360	36	871	6.80	7.84
November 1–23	5,440	66	1,210	9.45	8.08
March 12–31	1,340	162	428	3.34	2.48
April	1,000	73	335	2.62	2.92
May	162	30	80.5	.629	.72
June	177	9.2	33.6	.262	.29
July	26	2.4	5.85	.046	.05
August	75	1.1	16.2	.127	.15
September	15	1.9	4.79	.037	.04

e Estimated.

NOTE.—No record obtained Nov. 24 to Mar. 11.

CHERRY RIVER AT FENWICK, W. VA.

LOCATION.—Chain gage at highway bridge at Fenwick, Nicholas County, 1,000 feet below mouth of Laurel Creek.
DRAINAGE AREA.—150 square miles.
RECORDS AVAILABLE.—September, 1929, to September, 1930.
EXTREMES.—Maximum gage height during year, 12.04 feet Oct. 2 (discharge not determined); minimum, 0.1 second-foot Sept. 20 (gage height, 2.62 feet).
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Sept.	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	------	33	190	163	------	242	125	42	5.8	2.0	2.4
2	------	6,120	178	158	------	455	125	32	5.8	1.8	1.7
3	------	3,510	885	150	------	960	58	34	5.5	.5	1.4
4	------	1,700	780	158	------	1,340	37	26	4.1	.5	1.1
5	------	920	780	181	------	850	95	21	2.8	.7	1.1
6	------	590	e 600	204	------	780	123	23	2.0	1.4	1.0
7	------	340	e 450	211	------	1,000	105	23	2.0	2.4	.7
8	------	253	360	208	------	960	82	30	1.7	2.2	.4
9	------	218	380	184	1,250	815	61	22	.7	1.1	.5
10	------	181	e 250	172	920	745	60	31	.7	.7	.7
11	------	135	255	163	960	620	58	42	.5	1.0	1.0
12	------	66	222	158	885	480	75	25	.5	2.2	.4
13	------	51	204	150	780	360	79	18	1.1	.7	.5
14	55	47	194	150	885	590	88	14	3.0	3.0	.4
15	51	39	e 228	197	745	455	140	14	8.8	6.4	.3
16	39	69	530	246	650	340	505	12	8.2	14	.4
17	58	95	e 1,200	239	590	300	280	10	7.0	10	.4
18	58	69	5,240	------	680	280	340	11	10	7.6	.3
19	43	57	1,890	------	1,610	300	405	10	3.9	5.5	.2
20	34	50	1,000	------	960	253	405	10	2.0	6.4	.1
21	21	54	e 750	------	680	222	320	9.6	1.5	5.5	.2
22	19	e 300	e 550	------	480	360	236	7.9	2.2	3.4	.2
23	18	e 500	e 400	------	360	280	166	6.4	1.2	3.6	.2
24	16	e 400	280	------	300	225	140	7.0	1.7	3.2	.2
25	16	e 300	256	------	280	200	123	4.1	.7	4.1	7.6
26	14	e 250	246	------	300	181	91	4.9	.8	3.6	4.9
27	12	e 250	239	------	236	150	88	6.1	2.2	2.8	2.2
28	12	253	208	------	214	138	75	8.2	2.6	2.0	2.0
29	12	239	184	------	256	131	64	7.6	2.8	1.4	2.2
30	20	218	175	------	300	125	58	5.8	1.0	1.1	.8
31	------	204	------	------	256	------	51	------	1.4	1.4	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
September 14–30	58	12	29.3	0.195	0.12
1929–30					
October	6,120	33	565	3.77	4.35
November	5,240	175	637	4.25	4.74
December 1–17	246	150	182	1.21	.76
March 9–31	1,610	214	634	4.23	3.62
April	1,340	125	471	3.14	3.50
May	505	37	150	1.00	1.15
June	42	4.1	17.3	.115	.13
July	10	.5	3.04	.020	.02
August	14	.5	3.30	.022	.03
September	7.6	.1	1.18	.0079	.009

e Estimated.

NOTE.—No record obtained Dec. 18 to Mar. 8.

CRANBERRY RIVER AT WOODBINE, W. VA.

LOCATION.—Staff gage at Woodbine, Nicholas County, 1 mile above junction with Gauley River.
DRAINAGE AREA.—91 square miles.
RECORDS AVAILABLE.—October, 1929, to September, 1930.
EXTREMES.—Maximum discharge during period, about 3,720 second-feet Nov. 18 (gage height, 8.25 feet); no flow Sept. 22–25.
REMARKS.—Records good except those estimated and those above 1,500 second-feet, which are fair. Discharge estimated because of ice Jan. 20–30.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	------	360	146	322	128	228	166	68	17	2.6		
2	------	288	146	360	72	190	305	63	15	2.4		
3	------	1,380	146	760	83	166	790	61	13	2.3		
4	------	1,030	146	585	270	146	670	54	10			
5	------	585	146	360	730	146	425	48	9.0			
6	------	360	137	270	790	156	360	60	8.2			
7	------	255	137	255	820	1,310	558	58	9.6			
8	------	228	360	305	820	1,520	530	48	9.4	.9		
9	------	190	360	360	228	760	475	41	9.6			
10	------	156	288	340	190	530	450	36	33			0.6
11	------	190	270	380	166	530	360	54	75			
12	------	178	402	585	156	450	322	74	29			
13	------	156	425	270	202	402	240	49	16	2.4		
14	------	202	380	202	255	475	202	44	11	2.8		
15	------	255	305	166	270	475	288	62	9.0	3.2		
16	------	360	305	137	202	425	240	112	7.7	4.6	3.8	
17	------	475	270	128	190	380	202	85	7.0	4.7		
18	------	2,980	228	105	178	402	190	105	7.0	2.9		.1
19	------	1,030	2,900	64	166	502	190	166	6.6	2.0		.1
20	55	585	700	60	202	320	166	178	6.2			.1
21	52	402	450	60	228	450	166	137	5.5			.1
22	228	270	305	55	255	360	166	105	4.8			0
23	380	228	288	55	360	228	137	80	4.4			0
24	270	178	305	50	700	190	128	65	4.0			0
25	240	166	322	50	700	190	120	57	3.6	1.2		0
26	190	146	425	50	502	166	105	47	3.3			.1
27	202	215	502	60	380	146	94	37	3.1			.4
28	166	240	558	70	305	156	85	34	2.8			.6
29	166	228	585	80	------	166	75	29	2.7			2.0
30	215	146	450	90	------	190	72	26	2.6			1.6
31	450	------	322	112	------	166	------	23	------			------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
Oct. 20–31	450	52	218	2.40	1.07
November	2,980	146	449	4.93	5.50
December	2,900	137	410	4.51	5.20
January	760	50	218	2.40	2.77
February	820	72	341	3.75	3.90
March	1,520	146	401	4.41	5.08
April	790	72	276	3.03	3.38
May	178	23	67.9	.746	.86
June	75	2.6	11.5	.126	.14
July	4.7	----------	1.70	.019	.02
August	----------	----------	3.8	.042	.05
September	----------	0	.51	.0056	.006

MEADOW RIVER AT NALLEN, W. VA.

LOCATION.—Chain gage on highway bridge at Nallen, Fayette County.
DRAINAGE AREA.—297 square miles.
RECORDS AVAILABLE.—July, 1908, to September, 1916; November, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 6,140 second-feet Oct. 2 (gage height, 13.05 feet); practically no flow Sept. 23–24, 28–30.
1908–1916, 1928–1930: Maximum discharge, about 7,300 second-feet Feb. 3, 1915 (gage height, 13.25 feet); practically no flow Sept. 23–24, 28–30, 1930.
REMARKS.—Records good except those above 4,000 second-feet and those estimated because of ice, Nov. 30, Dec. 1–5, 24–27, Jan. 18 to Feb 2, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	1,460	310	965	130	570	308	108	69	0.7	0.6	0.4
2	2,300	1,400	280	875	130	470	293	108	58	1.4	.6	.4
3	4,690	3,610	250	1,010	169	375	392	116	49	1.5	.5	.3
4	2,780	3,700	200	1,010	264	324	1,200	104	41	1.4	.4	.3
5	1,770	2,460	170	875	2,380	293	1,060	95	34	1.1	.4	.3
6	965	1,460	250	695	1,980	410	875	108	30	.9	.4	.2
7	650	965	308	610	1,400	1,250	920	159	35	.7	.4	.2
8	392	695	430	530	1,060	4,600	1,060	132	33	.5	.4	.2
9	264	510	830	490	830	3,180	1,010	124	37	.4	.4	.2
10	190	375	740	430	650	2,060	920	102	35	.4	.3	.1
11	150	324	650	392	530	1,400	740	91	29	.4	.3	.1
12	124	308	570	340	450	1,250	570	86	25	.4	.3	.1
13	100	278	490	293	450	1,100	470	73	21	.4	.3	.1
14	94	278	430	293	530	1,010	375	100	19	8.4	.3	.1
15	88	358	392	293	510	965	340	132	16	10	.5	.1
16	83	570	375	278	570	785	308	159	13	9.2	.5	.1
17	78	1,060	340	250	510	650	264	150	12	8.4	.5	.1
18	73	5,540	340	210	410	530	250	179	15	7.6	.5	.1
19	64	4,420	570	180	450	695	237	570	14	6.0	.4	.1
20	61	2,780	1,350	140	430	785	224	830	13	4.0	.4	.1
21	57	1,400	1,150	160	490	740	224	695	11	2.8	.4	.1
22	1,770	920	920	180	490	610	250	490	8.8	.7	1.0	.1
23	3,430	695	740	180	530	530	200	375	7.6	6.0	2.0	0
24	2,380	510	600	160	695	430	179	308	6.8	4.3	2.5	0
25	1,840	410	500	140	1,060	375	159	212	6.0	2.8	1.5	.1
26	830	340	450	130	1,010	392	141	159	5.3	1.5	1.2	.1
27	610	324	400	125	830	358	132	141	4.0	3.4	1.7	.1
28	410	358	650	160	570	358	124	124	3.4	4.6	1.0	0
29	340	430	1,400	160	-------	358	116	104	.7	3.7	.7	0
30	650	360	1,250	150	-------	358	108	91	.7	1.7	.5	0
31	1,460	-------	1,100	150	-------	340	-------	80	-------	1.0	.4	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,690	11	926	3.12	3.60
November	5,540	278	1,280	4.31	4.81
December	1,400	170	595	2.00	2.31
January	1,010	125	382	1.29	1.49
February	2,380	130	697	2.35	2.45
March	4,600	293	889	2.99	3.45
April	1,200	108	448	1.51	1.68
May	830	73	203	.684	.79
June	69	.7	21.7	.073	.08
July	10	.4	3.11	.010	.01
August	2.5	.3	.69	.0023	.003
September	.4	0	.14	.00047	.0005
The year	5,540	0	452	1.52	20.67

ELK RIVER AT WEBSTER SPRINGS, W. VA.

LOCATION.—Chain gage on West Virginia Midland Railway bridge half a mile west of Webster Springs, Webster County, and one-fourth mile below Back Fork.
DRAINAGE AREA.—242 square miles.
RECORDS AVAILABLE.—October, 1929, to September, 1930.
EXTREMES.—Maximum gage height during year, 9.0 feet Oct. 2 (discharge not determined); minimum, 1.4 second-feet Sept. 23–25 (gage height, 0.06 foot).
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	705	480	775	270	570	365	150	46	16	2.5	7.8
2	5,200	635	540	850	222	540	670	147	41	15	2.1	7.2
3	6,240	4,020	450	1,640	194	420	1,050	139	36	15	1.7	6.6
4	2,620	2,620	420	1,140	392	360	1,420	131	29	13	1.5	6.6
5	1,640	1,420	392	890	1,530	310	1,010	119	25	11	2.6	4.5
6	1,050	930	420	775	1,320	392	1,050	150	26	9.8	5.5	3.5
7	705	570	510	570	810	1,140	1,320	222	41	9.8	5.2	2.8
8	510	420	1,420	540	635	2,460	1,320	169	39	8.4	5.0	3.0
9	392	365	1,050	570	600	1,760	1,230	150	22	7.5	4.2	2.5
10	274	335	930	540	540	1,530	1,050	112	315	6.6	3.5	1.8
11	194	392	740	450	420	1,320	970	105	450	5.0	3.0	1.8
12	176	450	1,010	450	392	1,230	850	101	242	3.5	1.8	2.0
13	158	392	1,050	480	1,010	1,010	670	86	128	2.8	1.6	2.4
14	147	450	970	360	1,530	970	540	88	101	6.9	2.5	2.1
15	133	540	890	335	1,420	970	450	169	79	8.3	9.0	2.2
16	114	740	775	284	810	850	392	297	56	15	49	2.3
17	123	1,140	635	226	570	775	335	238	51	16	35	2.6
18	116	7,790	600	186	450	740	292	218	50	13	26	2.3
19	103	2,620	1,760	183	450	1,050	320	222	41	8.7	22	2.1
20	90	1,420	1,640	302	540	1,420	266	302	36	6.0	18	2.0
21	86	930	930	222	635	850	279	262	28	6.0	17	1.8
22	740	740	670	198	670	705	315	214	23	5.5	15	1.7
23	1,320	570	540	183	810	510	258	162	19	6.3	15	1.5
24	890	450	450	155	1,420	450	246	155	20	8.4	16	1.4
25	635	392	392	155	1,320	420	226	133	26	9.0	14	1.8
26	510	310	355	155	1,420	420	210	101	28	7.8	12	3.2
27	570	670	392	155	930	360	180	88	23	7.8	11	8.0
28	510	930	570	155	705	330	166	70	22	6.0	12	6.0
29	480	670	1,140	292	-------	365	152	59	20	7.8	12	6.0
30	450	540	1,050	360	-------	420	150	64	15	5.2	10	5.2
31	810	-------	810	297	-------	392	-------	51	-------	4.0	8.7	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,240	50	872	3.60	4.15
November	7,790	310	1,140	4.71	5.26
December	1,760	355	774	3.20	3.69
January	1,640	155	448	1.85	2.13
February	1,530	194	786	3.25	3.38
March	2,460	310	808	3.34	3.85
April	1,420	150	592	2.45	2.73
May	302	51	151	.624	.72
June	450	15	69.3	.286	.32
July	16	2.8	8.75	.036	.04
August	49	1.5	11.1	.046	.05
September	8.0	1.4	3.49	.014	.02
The year	7,790	1.4	469	1.94	26.34

ELK RIVER AT QUEEN SHOALS, W. VA.

LOCATION.—Chain gage on highway bridge just above mouth of Queen Shoals Creek at Queen Shoals, Kanawha County.

DRAINAGE AREA.—1,140 square miles (includes Queen Shoals Creek).

RECORDS AVAILABLE.—November, 1928, to September, 1930. June, 1908, to September, 1916, at Clendennin.

EXTREMES.—Maximum discharge during year, about 68,000 second feet Oct. 3 (gage height, 22.34 feet); minimum, 2.4 second-feet Sept. 22, 27.

1928–1930: Maximum and minimum discharge occurred in 1930.

REMARKS.—Records good except those above 15,000 second-feet, which are fair. Flow of Queen Shoals Creek, which enters above control, is included in records.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	1,350	1,300	3,110	1,740	2,250	1,400	420	162	43	3.8	20
2	630	1,510	1,350	2,810	1,350	1,860	1,510	420	174	45	4.8	19
3	54,800	2,810	1,400	3,930	1,200	1,740	2,390	442	139	38	5.3	16
4	21,700	10,200	1,010	4,650	1,350	1,460	3,930	400	117	32	4.8	16
5	9,000	5,240	920	3,930	6,070	1,250	4,280	380	128	31	6.5	14
6	4,000	2,530	1,010	3,270	6,200	1,460	3,270	360	102	31	8.3	13
7	2,120	2,250	1,300	2,390	4,460	1,740	2,960	360	84	29	8.6	13
8	1,250	1,620	2,250	1,990	3,110	4,100	3,110	380	98	24	8.3	10
9	965	1,250	2,530	1,740	2,670	7,360	3,590	360	100	20	7.7	7.7
10	800	1,100	2,810	1,510	1,990	5,650	3,430	360	95	18	7.4	8.9
11	690	920	2,250	1,400	1,990	4,840	3,270	340	139	17	6.5	5.9
12	542	800	2,120	1,300	1,620	5,440	2,670	305	226	17	5.6	5.9
13	490	840	1,990	1,150	1,740	5,240	2,120	288	270	18	6.5	6.2
14	420	880	1,990	1,100	3,270	3,430	1,990	305	226	18	7.1	5.6
15	360	1,010	2,250	965	3,430	3,430	1,740	322	182	16	8.0	5.3
16	305	1,560	2,120	920	3,430	2,670	1,150	380	139	14	8.9	3.5
17	340	2,810	1,860	880	2,810	2,250	880	442	187	13	15	4.0
18	314	17,800	1,740	800	2,530	2,120	840	542	174	13	21	4.5
19	288	23,300	2,120	710	2,250	3,930	840	570	200	12	23	3.8
20	322	6,070	2,530	630	2,120	5,240	880	542	162	12	20	3.2
21	226	3,760	4,100	515	1,990	3,110	800	542	115	11	20	2.8
22	515	2,530	2,670	570	1,860	2,530	690	515	108	9.5	16	2.4
23	3,110	1,860	2,250	600	1,990	2,120	690	542	102	6.8	16	2.5
24	2,120	690	1,990	380	2,120	1,860	725	465	82	4.5	13	2.5
25	1,400	1,350	1,620	360	2,670	1,860	660	380	76	4.0	12	2.5
26	1,100	1,100	1,510	515	3,270	1,740	600	380	51	4.5	14	2.5
27	965	1,010	1,560	570	2,960	1,860	600	360	53	5.0	23	2.4
28	840	1,460	4,460	800	2,530	1,740	442	270	56	5.3	26	3.2
29	800	1,990	5,860	1,560	-------	1,620	400	213	56	6.2	28	4.2
30	840	2,120	5,440	2,390	-------	1,510	420	174	48	5.8	27	5.9
31	1,100	-------	4,100	2,250	-------	1,460	-------	150	-------	5.3	24	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	54,800	162	3,630	3.18	3.67
November	23,300	690	3,460	3.04	3.39
December	5,860	920	2,340	2.05	2.36
January	4,650	560	1,600	1.40	1.61
February	6,200	1,200	2,670	2.34	2.44
March	7,360	1,250	2,870	2.52	2.90
April	4,280	400	1,740	1.53	1.71
May	570	150	384	.337	.39
June	270	48	128	.112	.12
July	45	4.0	17.1	.015	.02
August	28	3.8	13.1	.011	.01
September	20	2.4	7.21	.0063	.007
The year	54,800	2.4	1,560	1.37	18.63

POCATALICO RIVER AT SISSONVILLE, W. VA.

LOCATION.—Chain gage at highway bridge at Sissonville, Kanawha County, one-fourth mile below mouth of Grapevine Creek. Zero of present gage is 0.58 foot higher than zero of gage at same site used 1908–1916 and 594.56 feet above mean sea level.

DRAINAGE AREA.—238 square miles.

RECORDS AVAILABLE.—June, 1908, to September, 1916; May to September, 1930.

EXTREMES.—Maximum discharge during year, 22 second-feet May 20 (gage height, 2.01 feet); minimum, 0.1 second-foot several days in August and September (gage height, 1.30 feet).

1908–1916, 1930: Maximum discharge, about 17,000 second-feet June 27, 1910 (gage height, 32.42 feet, present datum); minimum, 0.1 second-foot in 1930.

REMARKS.—Records good. Discharge affected by leaves on control July 9 to Aug. 4.

Daily and monthly discharge, in second-feet, 1930

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1		6.3	1.5	0.1	0.2	16		1.3	0.6	0.4	0.2
2		9.0	1.3	.1	.2	17		1.3	.5	.4	.2
3		4.0	2.4	.1	.1	18		1.3	.5	.4	.2
4		3.2	9.0	.2	.1	19		1.1	.4	.4	.2
5		2.4	11	.2	.1	20	22	1.3	.2	.3	.2
6		2.4	11	.5	.1	21	21	1.7	.2	.4	.2
7		1.9	10	.5	.1	22	17	2.0	.2	.6	.2
8		1.3	8.2	.4	.1	23	12	1.7	.3	.6	.2
9		1.1	6.0	.3	.1	24	15	1.7	.2	.5	.2
10		1.3	4.5	.3	.1	25	13	1.3	.4	.3	.3
11		1.3	2.9	.2	.1	26	10	1.3	.2	.3	.4
12		1.7	2.2	.2	.2	27	10	1.3	.3	.2	.3
13		1.5	2.0	.1	.1	28	9.7	1.1	.2	.2	.3
14		1.3	1.5	.3	.1	29	8.6	1.3	.2	.2	.3
15		1.3	1.1	.5	.1	30	9.7	1.1	.2	.2	.3
						31	6.6		.2	.2	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
May 20-31	22	6.6	12.9	0.054	0.02
June	9.0	1.1	2.03	.0085	.009
July	11	.2	2.55	.011	.01
August	.6	.1	.31	.0013	.001
September	.4	.1	.18	.00076	.0008

RACCOON CREEK BASIN

RACCOON CREEK AT ADAMSVILLE, OHIO

LOCATION.—Staff gage on line between secs. 25 and 26, T. 6 N., R. 16 W., just above highway bridge at Adamsville.

DRAINAGE AREA.—587 square miles.

RECORDS AVAILABLE.—June, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 4,550 second-feet Mar. 10 (gage height, 14.6 feet); minimum, 1.4 second-feet Sept. 24 (gage height, 1.54 feet).

1915–1930: Maximum discharge, 7,920 second-feet Apr. 21, 1920 (gage height, 21.10 feet); minimum, that of Sept. 24, 1930.

High-water marks indicate maximum stage of about 24.5 feet prior to installation of gage.

REMARKS.—Records fair except those for period of ice effect, Jan. 23–26, and those for low water, which are poor.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	870	316	960	480	2,070	480	141	41	23	8.2	4.1
2	86	900	316	960	480	1,350	1,130	125	41	22	8.2	3.4
3	110	1,100	336	1,060	611	1,590	1,830	125	41	20	8.2	3.2
4	125	1,200	297	1,130	1,240	1,430	1,910	110	41	20	7.3	2.8
5	133	1,020	242	1,020	3,380	1,270	1,470	95	39	19.0	7.3	2.4
6	118	701	225	810	3,200	1,270	930	92	41	17.0	7.7	2.2
7	102	480	242	655	2,660	1,950	930	83	41	16.1	9.1	2.6
8	84	396	278	611	1,510	3,850	810	80	39	14.4	59	2.4
9	70	316	297	810	930	4,250	678	68	38	11.7	41	2.8
10	59	278	297	1,910	990	4,500	611	66	36	9.1	32	2.8
11	51	260	278	1,950	750	4,300	480	77	31	8.2	20	2.2
12	48	242	278	1,470	678	3,650	438	74	26	9.1	18.0	2.6
13	44	225	278	1,060	810	1,590	417	71	25	10.0	16.1	10.8
14	42	701	316	1,510	1,020	1,020	396	78	24	10.0	15.2	19.0
15	41	2,570	417	1,910	1,060	810	376	80	24	10.0	15.2	6.8
16	38	2,840	633	1,950	810	780	356	78	25	10.0	13.5	3.4
17	38	3,240	523	1,510	655	701	316	80	27	9.1	11.7	2.6
18	36	4,350	1,060	930	567	655	297	92	26	9.1	10.8	2.2
19	38	4,350	1,710	655	523	1,350	278	102	26	9.1	10.8	2.6
20	42	4,250	1,870	567	480	1,350	260	95	24	8.2	10.8	2.2
21	51	3,520	1,430	545	438	1,270	260	89	24	7.7	11.7	2.0
22	870	2,110	750	523	417	1,060	242	82	22	7.3	13.5	1.6
23	990	1,020	611		396	678	208	76	18	10.0	16.1	1.5
24	900	633	567		417	589	191	68	21	10.8	17.0	1.4
25	633	567	523	510	545	655	174	61	26	7.7	10.0	1.8
26	438	501	501		1,060	810	157	55	22	7.3	5.4	1.8
27	316	438	523	480	2,030	930	157	48	22	6.8	4.5	1.8
28	260	459	1,430	750	2,660	701	149	47	23	6.8	3.6	1.8
29	225	438	1,590	900	-------	655	141	46	22	5.4	5.9	1.8
30	278	356	1,430	780	-------	611	141	42	22	5.4	7.7	1.6
31	750	-------	1,130	633	-------	545	-------	41	-------	10.0	6.8	-------

Month	Maximum	Minimum	Mean	Per square mile	Run off in inches
October	990	36	228	0.388	0.45
November	4,350	225	1,340	2.28	2.54
December	1,870	225	668	1.14	1.31
January	1,950	480	971	1.65	1.90
February	3,380	396	1,100	1.87	1.95
March	4,500	545	1,560	2.66	3.07
April	1,910	141	540	.920	1.03
May	141	41	79.6	.136	.16
June	41	18	29.3	.050	.06
July	23	5.4	11.3	.019	.02
August	59	3.6	13.9	.024	.03
September	19	1.4	3.34	.006	.01
The year	4,500	1.4	542	.923	12.53

GUYANDOT RIVER BASIN

GUYANDOT RIVER AT MAN, W. VA.

LOCATION.—Chain gage on highway bridge at Man, Logan County, 500 feet above mouth of Buffalo Creek.
DRAINAGE AREA.—752 square miles.
RECORDS AVAILABLE.—December, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 15,600 second-feet Nov. 18 (gage height, 13.37 feet); minimum, 3.8 second-feet July 21 (gage height, 2.35 feet). 1928–1930: Maximum and minimum discharge occurred in 1930.
REMARKS.—Records good. Flow of Buffalo Creek included.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	380	480	1,310	880	945	1,390	204	106	12	54	8.6
2	440	760	608	1,230	720	848	1,390	190	95	15	36	23
3	2,800	6,110	635	1,570	690	720	1,390	190	84	24	26	17
4	1,150	4,760	555	2,200	1,310	662	1,390	176	77	20	16	18
5	460	2,200	505	1,770	6,480	608	1,310	171	65	15	15	15
6	362	1,080	480	1,480	4,300	530	1,310	166	70	15	15	15
7	280	790	530	1,230	2,680	815	3,320	154	67	17	10	9.7
8	211	575	580	1,010	1,670	2,560	3,060	154	63	13	9.0	10
9	186	310	608	880	1,150	3,060	2,200	152	106	9.7	9.0	11
10	169	380	662	815	1,010	2,440	1,480	152	91	8.6	8.2	8.2
11	148	362	720	635	880	2,320	1,230	166	70	6.2	6.6	7.8
12	129	328	720	530	750	2,560	1,010	157	62	5.4	5.0	7.0
13	120	380	662	505	580	2,440	945	152	57	6.2	4.0	12
14	112	380	580	505	2,090	1,980	815	159	49	8.6	23	12
15	100	420	530	480	1,080	1,230	690	150	39	7.4	44	12
16	71	1,230	635	458	1,480	1,390	635	152	30	6.2	44	8.6
17	53	2,440	945	390	1,150	1,230	580	171	58	5.4	91	8.6
18	37	14,400	1,150	370	1,150	1,150	555	254	58	4.8	62	7.0
19	57	6,670	2,090	254	1,010	1,670	480	390	47	4.5	20	5.8
20	64	a 3,500	2,930	236	945	2,680	435	1,150	42	4.2	115	4.8
21	80	a 2,000	1,480	254	880	2,320	390	880	42	4.0	85	4.2
22	129	a 1,200	1,310	330	848	1,670	370	555	49	11	220	4.2
23	188	a 800	945	370	848	1,310	350	530	39	12	124	4.8
24	295	608	530	390	945	1,150	310	a 380	30	11	82	6.2
25	310	555	608	370	1,310	1,080	291	236	26	7.4	62	7.4
26	236	310	662	412	1,570	1,230	254	190	22	6.6	50	9.7
27	200	530	750	435	1,310	1,150	236	154	17	7.4	28	7.8
28	188	608	2,440	530	1,010	1,010	236	142	15	13	23	7.0
29	172	662	4,450	750	-------	1,010	272	135	17	16	5.4	6.2
30	265	662	2,680	1,150	-------	945	204	126	11	17	7.4	5.4
31	280	-------	945	1,010	-------	848	-------	117	-------	67	7.4	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,800	37	301	0.400	0.46
November	14,400	310	1,850	2.46	2.74
December	4,450	480	1,080	1.44	1.66
January	2,200	236	770	1.02	1.18
February	6,480	580	1,450	1.93	2.01
March	3,060	530	1,470	1.95	2.25
April	3,320	204	951	1.26	1.41
May	1,150	117	260	.346	.40
June	106	11	53.5	.071	.08
July	67	4.0	12.3	.016	.02
August	220	4.0	42.1	.056	.06
September	23	4.2	9.47	.013	.01
The year	14,400	4.0	681	.906	12.28

a Estimated.

GUYANDOT RIVER AT BRANCHLAND, W. VA.

LOCATION.—Chain gage on highway bridge at Branchland, Lincoln County, 20 feet below Fourmile Creek. Zero of gage 547.91 feet above mean sea level.
DRAINAGE AREA.—1,230 square miles.
RECORDS AVAILABLE.—July, 1915, to September, 1922; December, 1923, to September, 1930.
EXTREMES.—Maximum discharge during year, 23,600 second-feet Nov. 18 (gage height, 26.35 feet); minimum, 7.8 second-feet July 26–28 (gage height, 2.63 feet).

1915–1922, 1928–1930: Maximum stage, 39.24 feet Jan. 29, 1918 (discharge not determined); minimum discharge, that of July 26–28, 1920.

Maximum known stage, about 44 feet in 1907.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	1,300	860	2,580	1,460	1,540	1,220	340	130	28	15	51
2	84	1,860	780	2,020	1,380	1,460	1,100	325	120	29	27	46
3	1,860	4,980	820	2,660	1,300	1,300	1,220	300	120	29	31	40
4	1,460	8,800	860	2,660	2,100	1,220	1,380	275	117	24	33	36
5	1,100	4,820	740	2,900	6,580	1,060	1,620	280	114	21	27	33
6	740	2,180	628	2,500	8,440	1,060	1,860	265	94	20	24	24
7	555	1,380	740	2,020	5,620	1,540	2,100	255	94	20	24	31
8	488	1,060	980	1,700	3,540	2,420	3,940	250	94	19	29	27
9	295	820	1,460	1,460	2,420	5,700	3,540	203	83	22	33	22
10	245	665	1,780	1,300	1,940	4,580	2,340	211	76	19	33	19
11	219	590	1,620	1,100	1,620	3,940	1,860	203	72	20	26	16
12	179	520	1,380	980	1,620	3,700	1,460	191	94	19	23	19
13	136	488	1,220	900	2,260	3,700	1,300	179	85	18	19	19
14	111	628	1,020	860	3,460	3,300	1,220	255	72	17	24	18
15	106	780	900	780	4,100	2,820	1,100	275	68	14	23	19
16	94	1,220	900	740	3,140	2,260	980	240	61	12	19	18
17	85	4,340	1,060	665	2,420	1,940	900	219	61	9.6	17	21
18	74	20,600	1,380	628	1,620	1,780	740	390	61	8.4	19	26
19	65	11,100	2,100	520	1,700	2,340	702	455	136	8.4	38	26
20	65	5,380	3,620	455	1,460	3,380	665	702	103	8.4	37	23
21	68	3,540	2,740	455	1,460	3,700	590	1,380	76	8.4	34	17
22	76	2,100	1,940	488	1,380	3,060	590	1,020	72	8.4	40	13
23	235	1,540	1,620	590	1,380	2,260	520	740	72	9.0	140	10
24	455	1,300	1,460	590	1,380	1,940	488	555	63	9.6	172	9.6
25	390	1,140	1,140	520	1,620	1,780	455	455	58	8.4	143	12
26	280	980	1,100	488	1,940	1,780	422	275	53	7.8	106	19
27	315	900	1,540	780	2,020	1,700	390	280	46	7.8	83	11
28	255	900	2,740	1,460	1,780	1,540	390	245	39	7.8	76	9.6
29	255	940	5,860	1,700	-------	1,380	422	211	32	11	68	8.4
30	390	1,020	5,780	1,780	-------	1,300	368	149	28	11	61	9.6
31	980	-------	3,780	1,620	-------	1,300	-------	126	-------	14	56	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,860	65	380	0.309	0.36
November	20,600	488	2,930	2.38	2.66
December	5,860	628	1,760	1.43	1.65
January	2,900	455	1,290	1.05	1.21
February	8,440	1,300	2,540	2.07	2.16
March	5,700	1,060	2,350	1.91	2.20
April	3,940	368	1,200	.976	1.09
May	1,380	126	363	.295	.34
June	136	28	79.8	.065	.07
July	29	7.8	15.1	.012	.01
August	172	15	48.4	.039	.04
September	51	8.4	21.8	.018	.02
The year	20,600	7.8	1,070	0.870	11.81

TWELVEPOLE CREEK BASIN

TWELVEPOLE CREEK AT WAYNE, W. VA.

LOCATION.—Chain gage at highway bridge at Wayne, Wayne County, three-fourths mile below confluence of east and west forks.

DRAINAGE AREA.—291 square miles.

RECORDS AVAILABLE.—July, 1915, to September, 1922; October, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,180 second-feet Nov. 18 (gage height, 15.89 feet); minimum, 0.1 second-foot Sept. 27–30.

1915–1922, 1928–1930.—Maximum stage, 21.45 feet Jan. 9, 1920 (discharge not determined); minimum discharge, that of Sept. 27–30, 1930.

Flood of June, 1928, reached stage of about 33 feet.

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	408	90	408	368	234	184	52	12	1.3	0.8	1.3
2	234	309	96	348	348	430	226	46	11	1.3	.8	1.2
3	520	1,030	101	520	290	328	271	42	9.0	1.2	.8	1.1
4	309	1,090	107	452	940	290	348	37	8.0	1.2	.8	1.1
5	107	452	96	388	2,960	271	309	34	6.7	1.1	.8	1.0
6	69	290	126	348	1,380	252	328	31	5.8	1.1	.9	1.0
7	51	200	226	309	796	430	348	29	4.9	1.2	.8	.9
8	39	153	271	271	544	852	309	27	4.4	1.0	.9	.9
9	31	120	243	243	408	1,060	243	24	8.5	1.1	.8	*.8
10	24	96	200	208	388	796	217	23	7.6	1.1	1.0	*.8
11	20	90	176	176	328	716	184	20	5.8	1.0	.9	*.7
12	16	84	168	160	290	690	168	27	3.8	1.0	.8	*.7
13	17	96	146	160	1,030	544	160	27	3.2	1.0	.8	*.6
14	14	368	132	176	1,800	430	146	30	2.7	1.0	1.1	*.6
15	13	408	120	160	1,030	368	153	41	2.4	1.0	1.2	*.5
16	10	348	139	139	640	328	132	40	2.1	.9	1.1	*.5
17	8.0	1,660	139	120	544	271	120	28	2.4	.9	1.0	*.4
18	7.2	4,680	160	113	452	290	107	35	4.0	.9	.9	*.4
19	7.2	1,870	474	139	388	880	96	120	6.2	.9	.9	*.4
20	5.4	690	252	107	348	640	90	139	6.7	.9	.9	*.3
21	23	430	153	101	290	520	79	120	5.8	.8	.8	*.3
22	2.6	328	153	107	252	452	74	84	4.0	.9	1.0	*.3
23	1.3	271	139	126	252	408	69	60	2.7	.9	1.0	*.2
24	234	234	153	113	328	368	64	48	2.2	.9	1.0	*.2
25	139	200	153	113	368	368	56	41	1.8	.8	1.0	*.3
26	96	168	139	101	348	408	56	34	1.6	.9	5.8	*.2
27	69	168	408	153	309	348	51	27	1.5	.9	3.6	*.1
28	60	160	1,620	1,090	252	309	49	23	1.4	.9	2.1	*.1
29	52	146	1,300	852	-------	290	64	18	1.4	1.0	1.8	*.1
30	452	107	852	616	-------	252	60	15	1.2	.9	1.6	*.1
31	880	-------	568	474	-------	217	-------	15	-------	.8	1.4	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	880	1.3	114	0.392	0.45
November	4,680	84	555	1.91	2.13
December	1,620	90	294	1.01	1.16
January	1,090	101	284	.976	1.13
February	2,960	252	631	2.17	2.26
March	1,060	217	453	1.56	1.80
April	348	49	159	.546	.61
May	139	15	43.1	.148	.17
June	12	1.3	4.73	.016	.02
July	1.3	.8	.99	.0034	.00
August	5.8	.8	1.26	.0043	.004
September	1.3	.1	.57	.0020	.045
The year	4,680	.1	209	.718	9.702

* Estimated.

BIG SANDY RIVER BASIN

LEVISA FORK AT PAINTSVILLE, KY.

LOCATION.—Chain gage on highway bridge at Paintsville, Johnson County, 700 feet below mouth of Paint Creek.

DRAINAGE AREA.—2,150 square miles.

RECORDS AVAILABLE.—December, 1928, to September, 1930. June, 1915, to November, 1920, at Thelma.

EXTREMES.—Maximum discharge during year, 28,100 second-feet Nov. 19 (gage height, 27.18 feet); minimum, 8.4 second-feet July 23–25 (gage height, 1.06 feet).

1915–1920, 1928–1930: Maximum discharge, about 69,000 second-feet Jan. 29, 1918; minimum, that of July 23–25, 1930.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	248	2,610	1,490	3,860	1,980	1,430	1,190	530	295	48	32	82
2	212	1,910	1,250	2,960	1,910	1,430	1,190	490	278	43	31	63
3	370	11,900	1,310	3,050	1,840	1,370	1,250	470	233	46	27	50
4	3,500	20,300	1,310	3,770	2,530	1,310	1,630	430	209	43	29	44
5	2,050	12,800	1,190	4,220	10,400	1,250	2,210	430	184	41	27	35
6	1,250	5,300	1,190	3,680	12,800	1,190	2,690	390	176	41	24	28
7	910	3,320	1,490	3,050	8,660	1,250	2,610	390	156	43	22	28
8	660	2,290	2,050	2,610	5,500	1,840	3,410	390	158	38	23	22
9	550	1,770	2,530	2,290	3,860	4,130	2,960	370	156	33	56	21
10	450	1,560	2,530	1,910	2,960	4,310	2,290	350	163	32	42	34
11	370	1,310	2,290	1,700	2,530	3,950	1,840	330	153	29	36	38
12	312	1,130	2,050	1,490	2,210	4,400	1,630	330	141	25	77	42
13	278	1,130	1,840	1,370	2,960	4,600	1,430	330	123	22	54	35
14	245	1,490	1,630	1,310	7,780	4,500	1,370	430	111	23	68	32
15	215	1,910	1,490	1,250	8,990	4,220	1,250	660	99	21	82	28
16	192	2,530	1,840	1,250	6,300	3,590	1,190	635	91	22	71	36
17	173	8,110	1,980	1,130	4,600	2,870	1,070	810	83	23	60	32
18	178	20,900	2,210	1,010	3,680	2,610	1,010	960	107	23	48	29
19	170	26,900	2,870	860	3,050	3,770	910	1,070	127	22	47	25
20	143	11,400	3,410	760	2,610	5,200	910	6,400	123	22	43	42
21	810	5,300	3,860	760	2,370	4,800	910	4,220	176	17	50	42
22	8,770	3,500	2,960	860	2,050	4,040	810	2,370	150	12	54	34
23	16,500	2,610	2,530	1,010	1,980	3,230	710	1,490	123	8.8	57	29
24	6,200	2,290	2,290	1,070	1,980	2,690	710	1,130	93	8.8	1,130	22
25	2,870	1,980	1,910	1,370	2,050	2,450	660	860	82	8.4	860	23
26	1,840	1,840	1,700	1,490	1,910	2,370	610	710	83	14	490	22
27	1,370	1,770	2,130	1,250	1,770	2,210	570	570	74	22	330	21
28	1,070	1,910	4,600	1,980	1,630	1,910	550	490	68	21	224	19
29	760	1,980	6,000	2,690	.....	1,630	570	410	54	23	168	19
30	2,050	1,840	6,400	2,450	.....	1,490	570	350	47	22	126	18
31	4,310	.....	5,200	2,290	.....	1,370	.....	312	.....	25	98	.....

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	16,500	143	1,900	0.884	1.02
November	26,900	1,130	5,520	2.57	2.87
December	6,400	1,190	2,500	1.16	1.34
January	4,220	760	1,960	.912	1.05
February	12,800	1,630	4,030	1.87	1.95
March	5,200	1,190	2,820	1.31	1.51
April	3,410	550	1,360	.633	.71
May	6,400	312	939	.437	.50
June	295	47	137	.064	.07
July	48	8.4	26.5	.012	.01
August	1,130	22	145	.067	.08
September	82	18	33.2	.015	.02
The year	26,900	8.4	1,760	.819	11.13

RUSSELL FORK AT HAYSI, VA.

LOCATION.—Chain gage at highway bridge at Haysi, Dickenson County, 500 feet below mouth of McClure River.
DRAINAGE AREA.—286 square miles.
RECORDS AVAILABLE.—July, 1926, to September, 1930.
EXTREMES.—Maximum discharge during year, 6,780 second-feet Nov. 18 (gage height, 8.72 feet); minimum, 0.8 second-foot July 13, 15 (gage height, 1.28 feet).
1926–1930: Maximum discharge, about 21,600 second-feet Mar. 23, 1929 (gage height, 17.96 feet); minimum, that of July 13, 15, 1930.
REMARKS.—Records good except those for very low water, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	208	154	201	397	198	168	132	86	56	4	2	6
2	629	138	215	328	212	189	143	79	49	3	2	5
3	692	3,180	229	598	198	160	171	90	37	3	2	5
4	323	1,910	192	660	598	168	313	77	30	2	2	5
5	189	760	183	538	2,240	151	277	71	25	2	2	4
6	130	480	171	424	1,280	140	349	77	50	2	2	3
7	106	334	171	397	760	629	538	88	56	2	2	3
8	77	264	256	318	568	980	480	79	50	2	2	11
9	63	198	300	268	397	598	349	69	32	2	2	8
10	54	165	309	229	354	568	272	58	20	1	35	6
11	40	171	290	198	272	598	236	63	18	1	9	5
12	30	162	264	177	240	795	222	86	22	1	4	5
13	34	174	232	180	365	902	201	225	15	1	2	3
14	25	192	248	174	830	725	189	183	12	2	3	84
15	23	538	212	177	830	598	177	354	11	.9	11	32
16	26	830	240	168	598	480	177	222	84	2	5	17
17	23	830	218	146	509	370	160	151	26	2	4	14
18	15	5,240	277	135	424	344	183	232	52	3	3	11
19	13	1,190	568	110	370	480	189	4,060	30	2	3	7
20	12	692	660	115	344	480	138	1,100	21	5	2	5
21	63	424	480	128	313	424	135	598	11	3	14	4
22	3,300	344	452	151	260	397	128	349	10	3	629	3
23	1,140	313	424	128	300	323	120	248	7	4	480	3
24	480	268	370	143	281	295	113	183	6	9	140	3
25	268	295	264	186	244	248	106	162	5	10	73	3
26	201	323	256	174	222	264	99	115	4	6	40	3
27	154	365	339	160	201	198	94	99	3	5	28	4
28	118	360	692	198	177	165	86	90	6	3	17	3
29	132	334	1,020	183	------	160	97	97	7	3	11	2
30	143	236	725	183	------	160	99	90	5	3	7	2
31	165	------	509	205	------	148	------	73	------	2	6	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,300	12	286	1.00	1.15
November	5,240	138	695	2.43	2.71
December	1,020	171	354	1.24	1.43
January	660	110	244	.853	.98
February	2,240	177	485	1.70	1.77
March	980	140	397	1.39	1.60
April	538	86	199	.696	.78
May	4,060	58	308	1.08	1.24
June	84	3	25.3	.088	.10
July	10	.9	3.03	.011	.01
August	629	2	49.8	.174	.20
September	84	2	9.0	.031	.03
The year	5,240	.9	253	.885	12.00

POUND RIVER NEAR HAYSI, VA.

LOCATION.—Chain gage at suspension footbridge 4 miles west of Haysi, Dickenson County.

DRAINAGE AREA.—217 square miles.

RECORDS AVAILABLE.—July, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,530 second-feet Oct. 22 (gage height, 9.12 feet); minimum, 0.5 second-foot July 9, 10, 16 (gage height, 0.5 foot).

1926–1930: Maximum stage, 16.50 feet Mar. 23, 1929 (discharge not determined); minimum discharge, that of July 9, 10, 16, 1930.

REMARKS.—Records good. Discharge estimated Nov. 29 to Dec. 2 because of ice. Discharge of Twin Branch, 50 feet below gage, included in records.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	198	180	366	99	162	120	52	37	4	4	5
2	100	185	180	332	144	160	104	48	32	4	4	2.6
3	254	4,130	172	537	126	150	108	50	26	3	4	3
4	298	1,880	172	537	332	137	348	45	22	2.1	3	4
5	125	760	146	457	1,490	133	283	40	18	2.4	2.8	2.7
6	86	476	162	383	864	122	268	41	16	2.0	5	4
7	67	332	348	332	622	476	283	38	21	1.8	5	4
8	53	268	315	283	496	918	239	37	19	2.0	5	4
9	39	198	401	239	383	712	198	47	19	1.4	6	2.8
10	36	158	366	212	315	622	170	36	17	.9	16	2.6
11	32	146	332	185	253	622	155	65	16	1.4	10	2.1
12	32	155	253	153	239	810	144	61	14	1.3	5	2.7
13	25	153	225	146	457	760	137	130	11	4	4	2.2
14	24	158	212	139	1,090	579	128	150	8	5	6	3
15	22	438	198	137	760	457	120	185	10	2.2	9	3
16	21	622	268	122	537	401	112	135	8	1.0	6	2.2
17	18	864	438	102	457	315	90	97	19	1.3	4	2.4
18	16	3,530	438	95	366	299	124	124	24	1.5	4	2.1
19	16	1,030	810	75	315	622	108	2,040	20	2.2	4	2.2
20	16	579	760	54	268	496	95	810	17	4	4	1.8
21	32	419	516	86	268	438	90	438	14	5	14	1.6
22	4,330	299	401	108	212	366	86	299	12	5	172	1.6
23	1,490	299	383	101	225	268	77	198	9	4	93	2.1
24	476	268	299	82	253	268	59	122	8	4	51	2.1
25	332	268	239	93	225	225	62	110	5	3	37	1.5
26	198	268	225	62	225	239	57	88	5	2.6	22	2.8
27	130	315	283	90	198	185	54	57	5	4	15	4
28	110	348	579	124	170	153	51	52	4	5	12	2.7
29	112	270	760	120	------	137	56	51	4	4	9	2.6
30	141	200	622	118	------	120	54	51	5	5	5	4
31	225	------	476	93	------	114	------	44	------	6	5	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,330	16	286	1.32	1.52
November	4,130	146	640	2.95	3.29
December	810	146	360	1.66	1.91
January	537	54	192	.885	1.02
February	1,490	99	407	1.88	1.96
March	918	114	370	1.71	1.97
April	348	51	133	.613	.68
May	2,040	36	185	.853	.98
June	37	4	14.8	.068	.08
July	6	.9	3.07	.014	.02
August	172	2.8	17.6	.081	.09
September	5	1.5	2.78	.013	.01
The year	4,330	.9	216	.995	13.53

TUG FORK AT KERMIT, W. VA.

LOCATION.—Chain gage at Kermit, Mingo County, 2 miles above mouth of Marrowbone Creek. Zero of gage is 0.2 foot higher than that of gage used 1915–1920.

DRAINAGE AREA.—1,240 square miles.

RECORDS AVAILABLE.—June, 1915, to December, 1920; December, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 21,500 second-feet Nov. 18 (gage height, 26.00 feet); minimum, 18 second-feet Sept. 11 (gage height, 2.50 feet).

1915–1920, 1928–1930: Maximum discharge, about 51,400 second-feet Jan. 29, 1918 (gage-height, 38.8 feet, old datum); minimum, that of Sept. 11, 1930.

Highest stage known, 46.7 feet (old datum).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	1,710	1,100	2,610	1,430	1,040	885	362	165	104	95	42
2	190	1,260	990	2,190	1,320	990	835	345	158	80	68	38
3	2,430	6,300	1,100	2,310	1,260	935	885	345	145	66	51	34
4	2,730	6,750	990	2,910	2,310	885	1,210	328	132	53	42	28
5	1,210	4,120	990	3,030	6,210	885	1,830	310	116	49	34	21
6	835	2,730	990	2,670	7,750	835	1,890	310	145	42	24	25
7	685	1,830	1,100	2,250	4,680	885	2,310	295	136	39	30	26
8	490	1,320	1,650	1,890	3,450	1,260	4,200	280	132	52	25	29
9	422	1,100	1,950	1,650	2,610	1,890	2,910	265	140	44	26	27
10	340	885	1,890	1,380	2,250	2,130	2,250	235	150	30	25	22
11	302	835	1,710	1,210	1,890	2,610	1,770	265	130	31	22	20
12	268	760	1,540	1,100	1,600	2,790	1,540	265	112	28	48	24
13	235	735	1,430	990	1,650	3,310	1,320	265	102	30	68	27
14	220	885	1,320	990	3,730	3,170	1,160	328	93	28	73	31
15	190	990	1,160	935	4,280	2,730	1,040	328	81	24	66	32
16	175	1,320	1,430	935	3,100	2,610	990	280	74	27	73	32
17	175	4,680	1,770	785	2,670	1,950	885	310	83	32	59	35
18	160	20,800	1,950	685	2,250	1,770	785	460	145	30	53	31
19	155	10,200	2,010	572	1,830	2,430	735	595	170	78	63	31
20	150	4,840	2,370	595	1,650	3,520	735	1,770	148	59	65	31
21	220	3,240	2,130	595	1,480	3,170	662	1,480	108	41	62	28
22	1,540	2,370	1,890	735	1,430	2,730	595	935	92	35	150	24
23	935	1,950	1,600	710	1,430	2,310	572	662	80	30	179	22
24	885	1,770	1,430	662	1,430	1,950	528	505	69	27	280	22
25	660	1,540	1,210	662	1,380	1,890	482	380	65	29	235	22
26	512	1,380	1,160	595	1,260	1,710	460	328	58	30	158	35
27	422	1,430	1,320	835	1,210	1,480	440	280	53	30	114	45
28	340	1,430	2,850	1,100	1,100	1,260	420	235	52	41	85	39
29	302	1,430	4,440	1,710	-------	1,100	420	220	136	44	69	31
30	535	1,260	4,360	1,770	-------	1,040	380	220	150	52	55	27
31	1,710	-------	3,380	1,770	-------	990	-------	182	-------	95	51	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,730	90	629	0.507	0.58
November	20,800	735	3,060	2.47	2.76
December	4,440	990	1,780	1.44	1.66
January	3,030	572	1,380	1.11	1.28
February	7,750	1,100	2,450	1.98	2.06
March	3,520	835	1,880	1.52	1.75
April	4,200	380	1,170	.944	1.05
May	1,770	182	431	.348	.40
June	170	52	114	.092	.10
July	104	24	44.5	.036	.04
August	280	22	78.7	.063	.07
September	45	20	29.4	.024	.03
The year	20,800	20	1,080	.871	11.78

SCIOTO RIVER BASIN

SCIOTO RIVER AT LARUE, OHIO

LOCATION.—Water-stage recorder just below Cleveland, Cincinnati, Chicago & St. Louis Railway bridge at Larue, Marion County. Zero of gage 910.19 feet above mean sea level.

DRAINAGE AREA.—255 square miles.

RECORDS AVAILABLE.—August, 1926, to September, 1930.

EXTREMES.—Maximum discharge, 6,860 second-feet Jan. 13 (gage height, 13.9 feet); minimum, 3 second-feet Aug. 4, 5 (gage height, 2.06 feet).

1926–1930: Maximum discharge, 10,700 second-feet Mar. 20, 1927 (gage height, 15.0 feet); minimum, that of Aug. 4, 5, 1930.

REMARKS.—Records good. Once-daily readings from the United States Weather Bureau gage used Dec. 20 to Feb. 6 when water-stage recorder did not operate satisfactorily.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	164	83	1,410	106	432	282	47	17	16	4	27
2	9	826	71	2,100	106	324	369	44	15	14	4	22
3	8	759	71	2,820	122	186	255	41	14	14	4	16
4	10	361	68	1,610	122	186	186	36	13	13	4	8
5	11	218	64	560	242	157	148	36	12	12	3	4
6	11	167	71	394	217	148	130	36	12	12	5	4
7	11	128	110	394	176	157	130	33	18	12	10	10
8	11	103	a 950	3,860	157	416	130	33	23	9	11	13
9	10	91	843	4,900	148	354	98	31	22	8	8	8
10	9	93	337	4,700	157	242	90	28	18	8	8	8
11	9	458	243	2,280	130	196	82	26	16	7	6	4
12	10	432	230	1,610	182	166	75	26	14	7	4	5
13	12	363	943	6,860	1,320	130	72	27	12	8	4	5
14	12	835	2,760	4,750	972	106	68	25	12	10	4	6
15	12	1,060	1,580	3,670	437	94	72	24	10	17	4	5
16	12	590	810	1,800	310	90	68	24	12	17	4	15
17	12	394	915	874	255	90	86	26	18	12	4	19
18	12	498	2,610	545	166	203	148	24	131	10	6	9
19	12	538	1,940	467	157	462	122	25	82	8	6	5
20	14	351	834	467	229	225	86	33	41	6	5	4
21	22	243	702	354	324	176	82	30	25	5	5	4
22	420	177	478	296	282	130	114	25	20	7	6	4
23	2,410	137	394	282	400	114	102	22	14	7	8	5
24	2,100	124	394	176	677	130	82	23	36	6	7	13
25	1,110	103	337	157	1,040	744	72	22	114	6	7	74
26	657	95	230	139	2,080	1,070	61	20	98	5	5	94
27	362	95	207	139	1,500	499	58	18	149	5	4	54
28	230	103	337	139	693	400	54	18	54	5	4	27
29	167	79	282	130	-------	545	50	19	29	6	5	17
30	137	95	243	130	-------	467	50	18	22	5	6	12
31	115	-------	207	106	-------	324	-------	18	-------	4	10	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,410	8	256	1.00	1.15
November	1,060	79	323	1.27	1.42
December	2,760	64	624	2.45	2.82
January	6,860	106	1,550	6.08	7.01
February	2,080	106	454	1.78	1.85
March	1,070	90	290	1.14	1.31
April	369	50	114	.447	.50
May	47	18	27.7	.109	.13
June	149	10	35.8	.140	.16
July	17	4	9.06	.036	.04
August	11	3	5.65	.022	.03
September	94	4	16.7	.065	.07
The year	6,860	3	310	1.22	16.49

a Estimated.

SCIOTO RIVER AT PROSPECT, OHIO

LOCATION.—Chain gage on highway bridge at Prospect, Marion County, five-eighths mile above Marion-Delaware County line. Zero of gage 891.72 feet above mean sea level.

DRAINAGE AREA.—554 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 8,800 second-feet Jan. 14 (gage height, 14.0 feet); minimum not determined.

1925–1930: Maximum discharge, 10,100 second-feet Mar. 22, 1927 (gage height, 15.0 feet); minimum, 5.8 second-feet Sept. 5, 1925 (gage height, 1.12 feet).

Maximum stage known, 21.1 feet Mar. 25, 1913 (discharge, estimated by engineers of Franklin County Conservancy District, 27,000 second-feet).

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

Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	378		2,790	161	1,760	555	112	47	71	23	20
2	19	1,150		3,910	164	900	555	112	47	55	21	18
3	15	1,520	120	4,910	207	635	595	102	47	47	20	23
4	14	1,200		4,550	282	480	480	95	44	44	17	22
5	13	720		2,930	394	411	362	91	44	41	15	16
6	10	480	108	1,400	394	378	313	95	44	37	14	14
7	15	362	156	1,300	345	394	298	91	47	37		18
8	13	282	810	4,640	282	810	298	88	42	37		13
9	13	237	1,250	7,400	237	1,000	252	86	43	37	14	12
10	13	207	1,200	8,700	222	765	207	82	43	33		14
11	13	329	675	7,900	222	555	192	74	40	32		12
12	13	720	635	7,000	282	445	178	72	37	30		12
13	13	720	1,460	7,100	1,200	362	164	68	33	31	12	12
14	13	1,100	2,930	8,600	1,700	298	164	74	33	35		9.8
15	13	1,760	3,990	8,600	1,760	237	164	71	33	33		9.8
16	13	1,700	3,140	7,300	765	222	164	68	36	36		14
17	13	1,350	2,240	5,090	515	222	192	64	57	44		14
18	13	1,300	3,280	2,240	411	298	282	64	71	41	11	15
19	16	1,350	4,550	1,000	362	555	345	68	122	35		19
20	15	1,100	3,910	720	428	675	252	74	134	29		15
21	98	720	2,300	595	555	445	207	76	82	31		9.8
22	445	515	1,150	445	635	329	192	77	66	31		9.8
23	2,720	394	720	394	810	282	207	71	55	29	10	11
24	3,430	313	555	394	1,400	252	186	110	52	29		19
25	3,910	282	480	345	2,000	900	159	77	313	27		32
26	2,790	267	394	329	4,470	1,760	140	76	345	27		50
27	1,460	252	394	267	4,730	1,520	134	68	298	33	8	101
28	720	222	445	222	3,510	1,050	124	68	267	31		80
29	480	172	675	207	-------	855	112	61	137	26	6.9	42
30	362	142	765	186	-------	855	112	58	86	23	6.9	30
31	298	-------	1,100	170	-------	765	-------	55	-------	23	12	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,910	10	548	0.989	1.14
November	1,760	142	708	1.28	1.43
December	4,550	----------	1,290	2.33	2.69
January	8,700	170	3,280	5.92	6.82
February	4,730	161	1,020	1.84	1.92
March	1,760	222	659	1.19	1.37
April	595	112	253	.457	.51
May	112	55	79.0	.143	.16
June	345	33	91.5	.165	.18
July	71	23	35.3	.064	.07
August	23	----------	12.3	.022	.03
September	101	9.8	22.9	.041	.05
The year	8,700	----------	667	1.20	16.37

SCIOTO RIVER NEAR DUBLIN, OHIO

LOCATION.—Water-stage recorder one-fourth mile north of Delaware County line, three-fourths mile below O'Shaughnessy Dam, and 3 miles north of Dublin, Franklin County. Zero of gage 775.00 feet above mean sea level.

DRAINAGE AREA.—988 square miles.

RECORDS AVAILABLE.—April, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 22,700 second-feet Jan. 10 (gage height, 12.7 feet); minimum, 4.8 second-feet June 20 (gage height, 2.65 feet).

1921–1930: Maximum discharge, 28,200 second-feet Mar. 21, 1927 (gage height, 14.5 feet); minimum, 0.4 second-foot Nov. 8, 1924 (gage height, 2.21 feet).

Flood of March, 1913, reached stage of 24.6 feet Mar. 25.

REMARKS.—Records excellent except those for extremely high water, which are fair. Water stored at O'Shaughnessy Dam for supply of city of Columbus. Monthly summaries of flow corrected for storage.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	718	280	4,940	280	2,780	880	205	60	138	81	35
2	26	4,920	304	6,950	269	1,580	805	210	85	113	81	35
3	43	3,330	258	8,040	286	1,090	920	200	106	106	78	35
4	86	1,970	246	5,780	352	842	768	186	113	99	78	36
5	86	1,260	241	3,720	525	730	625	200	142	99	56	38
6	86	842	246	2,090	590	660	525	186	147	99	65	38
7	86	625	280	2,210	590	943	492	186	147	99	89	38
8	86	525	745	13,900	525	2,340	460	186	151	99	99	36
9	81	430	1,630	18,200	460	1,850	400	172	151	106	147	36
10	69	402	1,630	20,200	430	1,320	382	151	155	106	172	38
11	69	856	1,220	12,500	370	960	334	138	142	106	106	38
12	71	960	920	9,710	438	805	310	130	138	102	106	36
13	69	1,100	3,620	17,300	2,780	660	358	110	134	102	106	36
14	69	2,180	6,700	17,300	3,390	525	430	113	134	99	81	35
15	56	3,230	5,130	14,300	2,340	460	394	113	134	99	55	36
16	41	2,340	4,090	9,320	1,290	430	370	102	138	99	48	35
17	42	2,470	3,720	6,000	880	400	430	110	134	99	40	35
18	42	2,610	9,510	3,030	730	430	697	94	130	99	40	35
19	40	2,210	8,920	1,300	625	576	768	124	60	96	40	35
20	15	1,630	5,040	842	695	842	558	124	17	96	39	35
21	25	1,140	2,760	768	960	695	430	110	43	96	36	35
22	881	842	1,850	660	1,000	558	382	110	43	96	35	35
23	7,210	695	1,220	460	1,530	460	358	116	64	99	35	35
24	6,700	558	920	364	3,400	430	334	155	102	96	34	35
25	6,950	492	805	370	7,210	836	298	168	99	96	33	38
26	3,390	430	695	370	15,600	2,210	263	124	99	99	33	262
27	2,040	430	695	340	8,950	1,970	246	116	99	99	33	268
28	1,160	430	768	328	4,920	1,520	230	110	213	99	33	73
29	768	376	1,040	304	-------	1,220	219	78	310	96	34	71
30	625	230	1,140	292	-------	1,220	214	93	195	89	34	71
31	525	-------	2,000	292	-------	1,040	-------	57	-------	81	36	-------

Month	Observed			Corrected for storage		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
October	7,210	15	1,010	1,050	1.06	1.22
November	4,920	230	1,340	1,340	1.36	1.52
December	9,510	241	2,210	2,240	2.27	2.62
January	20,200	292	5,880	5,860	5.93	6.84
February	15,600	269	2,190	2,210	2.24	2.33
March	2,780	400	1,040	1,030	1.04	1.20
April	920	214	463	459	.465	.52
May	210	57	138	138	.140	.16
June	310	17	123	121	.122	.14
July	138	81	100	30.9	.031	.04
August	172	33	64.0	9.13	.0092	.01
September	268	35	54.8	35.7	.036	.04
The year	20,200	15	1,220	1,210	1.22	16.64

SCIOTO RIVER AT COLUMBUS, OHIO

LOCATION.—Water-stage recorder at sewage treatment works of city of Columbus, Franklin County, four-tenths mile below highway bridge on Frank Road. Zero of gage 680.40 feet above mean sea level.

DRAINAGE AREA.—1,620 square miles.

RECORDS AVAILABLE.—April, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 22,600 second-feet Jan. 10 (gage height, 21.7 feet); minimum, 42 second-feet Sept. 6.

1921–1930: Maximum discharge, 28,600 second-feet Mar. 21, 1927 (gage height, 24.7 feet); mimimum, that of Sept. 6, 1930.

Maximum known stage, 25.9 feet Mar. 25, 1913.

REMARKS.—Records excellent. Record Apr. 29 to June 25 from staff gage at same site. Flow regulated at Griggs and O'Shaughnessy Reservoirs. Table of monthly discharge shows mean discharge corrected for storage.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	810	410	6,280	540	4,920	1,790	292	186	256	100	92
2	90	6,050	485	11,200	540	3,100	1,610	256	186	200	80	90
3	87	6,620	460	13,800	600	2,270	1,610	292	186	162	76	95
4	103	3,550	410	10,400	770	1,790	1,610	256	186	139	76	58
5	87	2,270	370	6,570	1,090	1,520	1,340	256	152	130	80	48
6	98	1,700	370	3,910	1,340	1,340	1,090	256	186	149	130	47
7	100	1,250	390	2,670	1,250	1,840	1,010	220	186	149	149	60
8	114	1,010	909	14,500	1,010	4,270	970	220	152	130	112	61
9	100	770	2,990	21,800	850	3,910	1,010	220	120	123	98	50
10	100	700	2,670	22,200	770	2,770	930	220	120	193	90	50
11	98	1,080	2,070	17,200	665	2,170	770	220	120	136	87	56
12	98	1,970	1,610	12,600	741	1,700	630	186	220	112	87	60
13	103	2,070	3,390	19,100	4,120	1,430	540	152	152	109	85	58
14	92	4,190	11,700	20,400	6,280	1,170	870	186	152	117	100	58
15	87	6,570	8,310	18,500	3,910	970	770	186	120	117	92	63
16	87	4,790	5,860	13,100	2,470	850	770	186	152	100	76	80
17	90	4,790	4,790	8,790	1,610	770	810	186	152	98	65	83
18	100	5,310	12,800	5,000	1,430	810	1,090	186	220	92	61	63
19	117	4,790	16,500	2,370	1,170	890	630	220	186	90	60	69
20	121	3,670	9,510	1,700	1,170	1,520	1,250	220	152	85	58	74
21	315	2,670	4,660	1,700	1,520	1,430	970	220	152	100	67	67
22	1,040	1,880	3,100	1,520	1,790	1,090	770	186	152	106	69	74
23	9,920	1,520	2,370	1,090	2,250	810	630	186	152	123	67	80
24	10,100	1,250	1,790	850	5,140	735	570	186	152	109	71	92
25	6,720	1,010	1,430	890	12,100	1,060	510	220	120	103	63	85
26	4,660	810	1,340	850	19,300	3,870	460	256	142	98	69	76
27	3,100	770	1,340	810	16,100	3,910	390	292	323	117	78	74
28	1,970	810	1,340	810	8,250	2,770	370	256	274	112	65	65
29	1,340	665	1,700	700	------	2,270	330	220	256	106	58	65
30	1,090	460	1,970	630	------	2,270	330	220	330	103	50	63
31	850	------	2,670	570	------	2,070	------	220	------	103	122	------

Month	Observed			Corrected mean
	Maximum	Minimum	Mean	
October	10,100	83	1,390	1,430
November	6,620	460	2,530	2,520
December	16,500	370	3,540	3,560
January	22,200	570	7,820	7,800
February	19,300	540	3,530	3,560
March	4,920	735	2,010	1,990
April	1,790	330	881	873
May	292	152	222	218
June	330	120	178	180
July	256	85	125	52.9
August	149	50	82.0	16.6
September	95	47	68.5	47.9
The year	22,200	47	1,860	1,850

SCIOTO RIVER AT CHILLICOTHE, OHIO

LOCATION.—Water-stage recorder 500 feet below Bridge Street Bridge at north end of Chillicothe, Ross County. Prior to Aug. 7, 1930, chain gage on bridge. Zero of gage 594.02 feet above mean sea level.

DRAINAGE AREA.—3,850 square miles.

RECORDS AVAILABLE.—December, 1913, to September, 1914; April, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, about 49,800 second-feet Jan. 15 (gage height, 20.4 feet); minimum, 181 second-feet Aug. 29 (gage height, 1.17 feet).

1921–1930: Maximum discharge, 75,000 second-feet Feb. 28, 1929; minimum, that of Aug. 29, 1930.

Maximum known stage, 39.8 feet Mar. 26, 1913 (discharge estimated at 260,000 second-feet by Franklin County Conservancy District).

REMARKS.—Records good. Flow regulated at Griggs and O'Shaughnessy Reservoirs; monthly mean discharge at this station only slightly affected. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	470	2,810	1,710	8,310	1,910	26,800	4,310	1,160	600	600	235	190
2	500	4,160	1,810	14,300	1,910	10,800	4,760	1,070	565	500	220	235
3	470	13,000	1,710	22,200	2,120	8,140	5,210	1,070	530	445	220	270
4	470	16,800	1,710	28,300	2,560	5,660	4,310	990	530	395	220	235
5	470	8,310	1,420	26,100	5,970	5,060	3,560	950	500	350	220	290
6	420	5,510	1,420	12,300	5,360	4,400	2,940	910	470	330	270	250
7	420	4,010	1,520	9,510	4,460	5,660	2,340	910	445	310	235	220
8	395	3,180	1,710	7,460	3,710	17,900	2,230	910	445	310	250	220
9	395	2,450	2,230	25,000	3,180	22,200	2,120	870	420	310	290	220
10	395	2,230	6,290	41,900	2,810	12,500	2,120	830	395	290	250	220
11	395	1,910	4,910	49,400	2,680	7,630	1,910	830	395	290	220	220
12	395	2,010	4,610	41,900	2,450	5,970	1,810	750	395	330	220	220
13	395	3,860	4,310	32,000	4,460	5,060	1,710	750	370	310	205	270
14	370	5,210	11,200	35,900	16,000	4,010	1,610	750	420	330	220	270
15	370	20,900	19,500	49,800	16,000	3,440	1,810	710	370	270	220	235
16	370	22,200	21,900	44,300	7,970	2,940	1,910	710	370	270	220	250
17	370	17,100	11,400	32,400	5,060	2,680	1,910	670	395	270	220	250
18	350	19,200	11,400	19,200	4,010	2,680	1,910	670	530	270	205	235
19	350	20,900	25,400	9,110	3,710	2,810	2,230	670	565	250	190	250
20	350	14,300	36,300	5,510	3,310	2,680	2,940	710	565	250	190	250
21	420	9,110	34,300	4,760	3,180	3,180	[a] 2,420	830	600	235	190	235
22	1,070	6,450	16,500	4,460	3,710	2,940	1,910	790	565	235	190	220
23	5,970	5,360	11,200	3,860	4,160	2,450	1,710	750	530	235	205	235
24	15,100	4,010	5,970	2,940	5,660	2,230	1,610	750	530	250	205	220
25	19,200	3,180	4,760	2,680	10,800	2,120	1,520	635	445	250	190	235
26	13,300	2,810	4,160	2,680	23,900	2,450	1,420	635	420	250	190	235
27	8,510	2,450	4,160	2,560	34,300	7,630	1,330	670	350	250	190	220
28	5,970	2,560	5,060	2,560	44,300	5,810	1,240	790	350	250	187	205
29	4,160	2,810	5,060	2,450	-------	4,910	1,240	750	565	270	184	190
30	3,180	2,450	4,610	2,230	-------	5,510	1,160	670	470	250	190	184
31	3,180	-------	5,360	2,010	-------	5,360	-------	635	-------	250	190	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	19,200	350	2,840	0.738	0.85
November	22,200	1,910	7,710	2.00	2.23
December	36,300	1,420	8,830	2.29	2.64
January	49,800	2,010	17,700	4.60	5.30
February	44,300	1,910	8,200	2.13	2.22
March	26,800	2,120	6,570	1.71	1.97
April	5,210	1,160	2,310	.600	.67
May	1,160	635	800	.208	.24
June	600	350	470	.122	.14
July	600	235	303	.079	.09
August	290	184	214	.056	.06
September	290	184	233	.061	.07
The year	49,800	184	4,670	1.21	16.49

[a] Interpolated.

LITTLE SCIOTO RIVER NEAR MARION, OHIO

LOCATION.—Staff gage in SW. ¼ sec. 19, T. 5 S., R. 15 E., at outfall of sewage-treatment works 300 feet below Erie Railroad crossing and 2 miles west of Marion.

DRAINAGE AREA.—73.3 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1930. September, 1923, to July, 1925, at site 3 miles downstream.

EXTREMES.—Maximum discharge during year, 1,300 second-feet Jan. 14 (gage height, 14.4 feet); minimum, 0.6 second-foot July 28.

1923–1930: Maximum discharge, 1,420 second-feet Mar. 22, 1927; minimum, 0.5 second-foot Sept. 26, 30, Oct. 8, 12, 1928.

REMARKS.—Records fair. Water diverted above station; amount not known.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	42	17	533	24	208	85	18	8.8	13	0.7	2.0
2	1.7	295	18	928	26	125	97	17	8.1	9.3	.9	1.3
3	1.9	208	18	993	32	73	85	15	7.8	8.1	.7	1.2
4	1.7	118	16	706	52	67	62	14	7.4	6.8	.9	1.1
5	1.7	73	15	368	62	62	52	14	6.6	5.5	.9	1.1
6	1.6	57	17	190	50	62	48	15	13	5.0	1.7	1.1
7	1.9	44	24	285	42	73	54	13	7.6	5.3	1.2	1.2
8	1.7	36	217	1,140	32	190	52	13	7.4	4.1	1.3	1.6
9	1.7	30	157	1,250	34	157	44	12	6.8	4.1	1.2	1.5
10	1.7	28	97	1,280	28	97	38	10	6.1	4.2	1.1	1.5
11	1.8	97	67	1,200	28	62	36	9.5	5.9	4.6	.9	1.4
12	1.7	79	62	1,120	46	62	32	9.5	5.9	3.6	1.1	1.6
13	1.4	67	315	1,250	379	52	30	9.5	5.1	3.0	1.0	1.7
14	1.6	295	682	1,300	199	44	34	10	5.1	3.0	1.1	1.5
15	1.7	412	500	1,270	133	40	32	11	4.8	4.4	1.2	2.3
16	1.7	208	379	1,120	57	40	32	11	12	4.8	1.2	2.2
17	1.6	173	305	876	34	38	36	9.5	22	3.4	1.1	2.3
18	1.5	295	790	305	46	60	73	10	36	2.9	1.2	2.3
19	1.5	325	694	149	48	111	67	12	21	2.4	1.2	3.0
20	1.3	199	489	111	57	67	44	13	12	1.7	1.2	2.7
21	8.1	118	245	85	67	54	40	12	9.5	1.3	1.2	2.6
22	157	79	125	67	67	44	40	9.8	8.1	1.4	1.1	2.4
23	876	60	91	50	149	40	34	8.1	7.4	1.2	1.3	5.3
24	838	50	67	50	305	42	30	14	28	1.1	1.2	4.4
25	544	40	60	42	315	368	26	30	255	.8	1.2	13
26	335	36	54	38	814	500	22	17	125	1.1	1.3	5.3
27	157	38	54	34	670	245	21	14	62	.7	1.2	5.0
28	79	36	67	34	456	157	20	14	38	.7	1.2	3.4
29	60	36	85	28	------	208	20	13	24	.8	1.1	3.9
30	46	26	85	26	------	157	18	12	17	.7	1.1	3.6
31	38	------	181	26	------	97	------	9.8	------	.9	3.1	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	876	1.3	102	May	30	8.1	12.9
November	412	26	120	June	255	4.8	26.1
December	790	15	193	July	13	.7	3.55
January	1,300	26	544	August	3.1	.7	1.19
February	814	24	152	September	13	1.1	2.78
March	500	38	116				
April	97	18	43.5	The year	1,300	.7	110

OLENTANGY RIVER NEAR DELAWARE, OHIO

LOCATION.—Water-stage recorder in NW. ¼ sec. 1, T. 5 N., R. 19 W., at highway bridge one-fourth mile north of Pennsylvania Railroad crossing and 4 miles north of Delaware. Zero of gage 876.92 feet above mean sea level.

DRAINAGE AREA.—387 square miles.

RECORDS AVAILABLE.—December, 1923, to September, 1930. October, 1921, to December, 1923, at Delaware.

EXTREMES.—Maximum discharge during year, 9,670 second-feet Jan. 8 (gage height, 13.9 feet); minimum, 0.1 second-foot Aug. 20 (gage height, 0.32 foot). 1921–1930: Maximum discharge, 15,000 second-feet May 20, 1922 (gage height, 11.3 feet at Delaware); minimum, that of Aug. 20, 1930.

REMARKS.—Records good except those for periods of ice effect, Dec. 21–30, Jan. 18–31, Feb. 16–18, and other estimated periods, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	322	161	2,500	176	810	364	68	47	44	10.3	1.7
2	22	2,570	134	4,650	174	630	320	60	33	33	8.1	5.6
3	20	1,760	113	4,250	231	490	455	54	32	22	5.9	6.3
4	17	810	114	2,090	379	385	295	48	28	17	4.7	9.4
5	15	490	107	900	525	358	224	44	25	14		12
6	15	361	107	600	420	376	194	47	27	12	[a]3.0	17
7	14	267	165	1,250	331	455	214	44	25	9.9		17
8	15	206	1,480	7,750	252	1,180	319	45	23	8.1		16
9	15	174	1,240	8,760	228	945	281	43	29	7.2		15
10	15	178	640	7,300	204	600	197	40	28	6.8	1.8	11
11	17	677	455	3,200	176	420	163	37	26	6.8	1.5	9.9
12	18	640	385	2,940	228	343	140	39	22	6.3	1.2	9.4
13	19	525	1,940	6,970	2,360	267	128	38	19	5.9	.9	8.1
14	18	1,700	3,460	6,310	1,500	211	120	42	17	5.9	.8	7.7
15	17	2,020	1,780	4,100	765	176	126	40	15	5.6	.7	8.1
16	17	1,140	900	1,840		165	132	42	16	4.7	.5	8.5
17	15	1,080	1,310	900	320	156	165	42	17	20	.4	8.5
18	15	1,660	4,620			174	298	42	20	17	.3	8.5
19	16	1,500	4,090	400	249	455	298	44	118	10.3	.3	9.0
20	16	990	1,640		325	382	190	57	138	6.8	.2	8.1
21	26	640			455	254	156	84	76	5.3	.3	8.5
22	273	420			455	192	144	69	45	4.7	.4	9.0
23	2,360	301	800	200	945	163	[a]127	52	30	4.0	.4	9.4
24	2,080	241			1,900	156	[a]121	82	26	3.1	.5	9.9
25	1,240	197			2,430	1,140	104	236	75	2.4	.5	10.3
26	720	178			[a]7,500	1,960	91	192	490	2.3	.5	13
27	455	176			3,130	1,140	82	122	257	4.4	.4	15
28	319	194	740	160	1,390	600	76	89	199	4.4	.3	15
29	234	154			-------	720	72	72	144	2.8	.3	17
30	190	192			-------	680	71	66	79	2.4	.3	13
31	165	-------	990		-------	455	-------	60	-------	8.5	.6	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,360	14	271	0.70	0.81
November	2,570	154	728	1.88	2.10
December	4,620	107	1,080	2.79	3.22
January	8,760	-------	2,220	5.74	6.62
February	7,500	174	991	2.56	2.66
March	1,960	156	532	1.38	1.59
April	455	71	192	.493	.55
May	236	37	65.8	.170	.20
June	490	15	71.1	.184	.20
July	44	2.3	9.76	.025	.03
August	10.3	.2	1.84	.005	.006
September	17	1.7	10.6	.027	.03
The year	8,760	.2	514	1.33	18.02

[a] Estimated.

BIG WALNUT CREEK AT REES, OHIO

LOCATION.—Water-stage recorder in T. 4 N., R. 22 W., at highway bridge 3½ miles below Alum Creek and just below Scioto Valley Railway & Power Co.'s bridge at Rees. Zero of gage 698.20 feet above mean sea level.

DRAINAGE AREA.—544 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1930; August, 1921, to October, 1927, at site three-tenths mile upstream.

EXTREMES.—Maximum discharge during year, 11,000 second-feet Jan. 9 (gage height, 13.2 feet); minimum, 7.0 second-feet Aug. 11–13 (gage height, 0.78 foot).

1921–1930: Maximum discharge, 18,600 second-feet Feb. 27, 1929 (gage height, 18.0 feet); minimum, 5 second-feet Sept. 4, 5, 10–12, 1925.

Maximum stage known, 20.5 feet (present datum) Mar. 25, 1913.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	290	212	2,980	170	895	360	130	61	38	9.6	42
2	31	1,110	173	4,210	179	775	420	122	58	39	11	22
3	33	1,870	152	5,520	242	645	400	110	54	27	14	39
4	32	780	138	1,740	400	502	325	101	52	24	14	32
5	32	460	135	780	720	480	274	97	50	22	15	26
6	33	325	141	570	606	570	242	97	48	24	18	23
7	32	258	164	570	460	1,160	227	90	47	30	25	22
8	30	212	676	6,280	380	4,560	212	88	44	27	14	29
9	28	182	1,170	10,600	342	1,790	212	83	43	25	10	23
10	27	152	570	5,660	325	835	196	76	39	36	8.3	19
11	27	155	460	2,160	279	640	173	73	34	24	7.3	18
12	27	392	440	1,440	308	570	155	72	34	18	7.0	18
13	27	474	1,400	7,870	3,820	440	150	70	34	18	7.0	22
14	27	3,270	6,110	7,610	2,080	342	242	70	34	18	8.6	20
15	29	3,530	1,860	4,260	794	290	342	70	33	18	11	19
16	28	1,240	895	1,440	378	274	258	73	38	16	10	34
17	27	3,010	1,160	775	380	258	274	70	62	14	12	39
18	26	3,960	5,710	502	325	274	385	68	69	13	13	27
19	26	2,060	9,170	360	308	290	570	84	72	13	13	22
20	26	1,030	2,470	380	360	325	342	101	99	12	12	21
21	48	640	841	360	502	274	242	135	76	12	12	18
22	194	440	615	325	480	242	242	115	59	13	16	14
23	2,500	342	548	274	848	212	227	94	50	18	16	13
24	1,740	290	460	258	2,670	212	193	87	44	15	16	12
25	893	258	440	258	7,290	344	170	76	39	13	16	14
26	536	242	420	227	8,340	1,540	152	72	34	12	15	15
27	352	242	460	212	5,370	672	144	65	34	19	14	12
28	258	290	570	212	1,440	502	135	76	48	16	13	12
29	212	290	692	209	-------	640	133	69	43	12	13	15
30	187	183	640	190	-------	570	135	64	38	10	14	15
31	227	-------	1,240	179	-------	420	-------	61	-------	9.6	32	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,500	26	249	0.458	0.53
November	3,960	152	933	1.72	1.92
December	9,170	135	1,290	2.37	2.73
January	10,600	179	2,210	4.06	4.68
February	8,340	170	1,420	2.61	2.72
March	4,560	212	695	1.28	1.48
April	570	133	251	.461	.51
May	135	61	85.8	.158	.18
June	99	33	49.0	.090	.10
July	39	9.6	19.5	.036	.04
August	32	7.0	13.4	.025	.03
September	42	12	21.9	.040	.04
The year	10,600	7.0	600	1.10	14.96

ALUM CREEK AT COLUMBUS, OHIO

LOCATION.—Water-stage recorder one-fourth mile below Livingston Avenue Bridge at Columbus, Franklin County. Zero of gage 733.62 feet above mean sea level.

DRAINAGE AREA.—190 square miles.

RECORDS AVAILABLE.—July, 1923, to September, 1930.

EXTREMES.—Maximum discharge during year, 4,450 second-feet Jan. 9 (gage height, 10.3 feet); minimum, 3.0 second-feet July 20.

1923–1930: Maximum discharge, 8,800 second-feet Feb. 27, 1929 (gage height, 13.6 feet); minimum, 1.8 second-feet Sept. 7, 1925 (gage height, 0.79 foot).

REMARKS.—Records excellent except those estimated, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7	84	48	950	22	296	140		16	13	a 6.1	9.2
2	10	664	33	1,400	24	252	133		14	9.2	a 7.3	17
3	9.6	676	31	1,680	37	200	133	a 45	11	6.7	8.5	14
4	10	240	31	508	78	153	111		10	6.2	8.5	9.2
5	8.7	140	31	240	153	142	89		10	6.2	7.2	8.5
6	8.2	97	37	176	131	176	77		13	13	15	9.2
7	8.2	77	46	188	98	401	77		7.2	10	5.3	17
8	8.2	61	395	2,700	80	1,140	75	a 35	7.2	9.2	4.2	14
9	7.8	54	328	4,050	66	470	84		7.2	16	4.2	9.2
10	7.3	49	153	1,960	61	266	75		6.7	7.2	3.7	8.5
11	7.8	84	120	705	48	226	61		6.2	4.4	4.0	9.2
12	7.8	214	131	499	93	188	56		6.7	4.0	3.7	13
13	7.8	255	915	2,770	1,230	164	54	a 30	6.7	4.4	4.0	10
14	8.7	1,080	1,720	2,780	464	140	166		6.7	4.7	7.7	9.2
15	8.2	945	438	1,380	182	107	131		6.7	4.2	5.0	17
16	8.2	341	252	420	116	94			25	4.2	7.8	26
17	8.2	927	515	239	113	93			26	4.2	8.5	9.2
18	8.7	1,000	2,880	176	124	93	a 170	a 35	21	4.0	8.5	7.8
19	8.2	540	2,710		96	107			28	3.7	8.5	8.5
20	15	281	536		96	118			17	3.7	8.5	6.2
21	55	188	239	a 140	122	94			16	4.2	10	4.4
22	197	135	188		116	77			12	6.5	12	4.7
23	1,240	93	176		490	73	a 95		8.5	4.4	9.2	4.7
24	598	81	153	66	1,140	75		a 40	7.8	3.4	13	6.2
25	283	69	153	60	2,440	255			6.7	3.7	9.2	7.2
26	157	58	153	44	3,220	569			6.7	12	8.5	5.8
27	104	69	153	42	1,560	252			30	4.0	8.5	6.7
28	82	74	176	40	420	188	a 60	30	27	3.7	8.5	11
29	81	69	212	37	------	200		22	20	3.4	9.2	7.8
30	79	69	226	28	------	188		18	17	3.7	10	8.5
31	79	------	419	25	------	164	------	17	------	4.9	42	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,240	7.3	101	0.53?	0.61
November	1,080	49	290	1.53	1.71
December	2,880	31	439	2.31	2.66
January	4,050	25	770	4.05	4.67
February	3,220	22	458	2.41	2.51
March	1,140	73	225	1.18	1.36
April	----------	----------	103	.54?	.60
May	----------	17	35.2	.185	.21
June	30	6.2	13.5	.071	.08
July	16	3.4	6.20	.033	.04
August	42	3.7	8.91	.047	.05
September	26	4.4	9.96	.05?	.06
The year	4,050	3.4	2.04	1.07	14.56

a Estimated.

DARBY CREEK AT DARBYVILLE, OHIO

LOCATION.—Staff gage at highway bridge three-eighths mile northeast of Darbyville, Pickaway County. Zero of gage 713.64 feet above mean sea level.
DRAINAGE AREA.—533 square miles.
RECORDS AVAILABLE.—October, 1921, to September, 1930.
EXTREMES.—Maximum discharge during year, 8,290 second-feet Jan. 14 (gage height, 10.1 feet); minimum, 3.5 second-feet Aug. 19 (gage height, 1.88 feet).
1921–1930: Maximum discharge, about 18,800 second-feet Feb. 27, 1929; minimum discharge, that of Aug. 19, 1930; minimum gage height, 1.54 feet Sept. 10–12, 1925.
REMARKS.—Records good except those for periods of ice effect, Dec. 1–10, 20–31, Jan. 18 to Feb. 3, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	405		1,940		1,340	405	129	56	18	10	12
2	76	620		2,710	230	1,060	552	122	53	20	10	15
3	56	3,400	200	4,020		885	520	117	51	22	10	18
4	53	1,540		2,490	313	730	432	105	48	18	9.0	18
5	52	928		1,240	655	585	356	101	44	18	9.0	18
6	51	730		885	520	520	294	98	44	20	26	17
7	46	585		805	432	552	274	98	45	18	13	17
8	45	585	300	4,290	334	3,040	274	94	37	17	11	14
9	44	356		7,810	313	2,160	224	88	32	12	12	13
10	42	334		7,810	334	1,840	192	84	32	15	12	12
11	41	313	356	6,720	256	970	185	76	35	17	11	12
12	41	805	356	1,940	294	692	173	76	32	15	10	17
13	42	730	845	3,890	2,050	552	173	78	32	15	9.0	12
14	42	928	3,400	8,130	2,160	460	185	80	32	17	7.2	13
15	40	3,040	2,270	6,120	1,240	380	192	76	32	15	11	12
16	41	2,050	1,240	2,160	768	356	228	73	35	13	10	12
17	41	2,600	1,240	1,240	585	334	224	73	35	14	9.0	15
18	42	3,280	3,890		460	334	334	73	124	13	6.4	15
19	40	2,160	7,490	530	490	356	294	76	124	15	3.5	14
20	37	1,240			520	334	294	94	124	13	4.8	13
21	40	1,020			655	294	204	92	119	12	6.4	13
22	928	928	650		585	256	198	88	73	12	5.6	12
23	4,570	585		300	620	256	188	80	45	12	6.4	12
24	5,550	490			585	256	170	74	26	12	9.0	11
25	2,050	405			4,570	274	144	73	20	11	11	14
26	1,340	356			6,570	655	139	92	32	11	10	12
27	1,020	405			7,970	405	139	94	28	15	10	12
28	692	405	570	220	1,440	313	134	80	22	14	10	11
29	620	432			-------	655	129	69	26	10	10	10
30	490	274			-------	805	132	68	22	12	9.0	9.0
31	490	-------			-------	520	-------	62	-------	11	13	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,550	37	604	1.13	1.30
November	3,400	274	1,060	1.99	2.22
December	7,490	----------	997	1.87	2.16
January	8,130	----------	2,210	4.15	4.78
February	7,970	----------	1,260	2.36	2.46
March	3,040	256	715	1.34	1.54
April	552	129	246	.462	.52
May	129	62	86.5	.162	.19
June	124	20	48.7	.091	.10
July	22	10	14.7	.028	.03
August	26	3.5	9.82	.018	.02
September	18	9.0	13.5	.025	.03
The year	8,130	3.5	604	1.13	15.35

PAINT CREEK NEAR GREENFIELD, OHIO

LOCATION.—Chain gage at highway bridge in Fayette County one-fourth mile north of county line and 2 miles north of Greenfield, Highland County.
DRAINAGE AREA.—251 square miles.
RECORDS AVAILABLE.—August, 1926, to September, 1930.
EXTREMES.—Maximum discharge during year, about 2,720 second-feet Dec. 19 (gage height, 6.40 feet); minimum, 0.1 second-foot on numerous days in July, August, and September.
1926–1930: Maximum discharge, about 6,340 second-feet Aug. 17, 1926 (gage height, 10.5 feet); minimum occurred in 1930.
REMARKS.—Records fair except those for high water, which are poor. Discharge estimated Dec. 1–7, Jan. 21 to Feb. 2 because of ice effect.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	163		540	100	582	173	58	14	3.6	0.1	0.2
2	6.2	218		582	100	437	582	57	12	2.8	.2	.2
3	6.6	309		1,030	108	326	437	54	11	2.0	.1	.2
4	7.0	309	90	770	674	326	326	51	9.3	2.0	.1	.1
5	7.0	247		498	770	309	236	51	8.1	1.4	.1	.5
6	7.8	206		380	519	278	210	49	8.5	1.4	6.4	.3
7	7.0	145		362	380	2,120	197	46	8.5	.9	1.4	.4
8	5.8	129	154	1,320	309	2,120	162	43	8.1	.9	.4	.5
9	5.0	108	206	2,200	264	1,200	141	42	7.7	.7	.2	.2
10	6.6	100	193	1,980	264	770	122	40	7.0	1.4	.3	.2
11	6.2	100	180	1,200	223	600	113	39	6.4	1.0	.3	.2
12	5.8	92	193	820	300	498	110	36	5.8	.9	.1	.4
13	5.0	90	400	1,980	975	343	107	32	5.8	.9	.2	.2
14	5.4	1,320	975	2,570	870	294	105	32	5.2	1.1	.3	3.4
15	5.0	1,840	975	2,270	820	249	105	34	4.0	.9	.2	3.2
16	5.4	1,640	582	1,030	498	223	100	32	8.5	.7	.2	3.6
17	5.0	1,200	628	600	362	210	100	30	7.7	.2	.1	1.3
18	6.6	1,200	1,500	399	278	210	97	30	30	.2	.1	.9
19	7.4	920	2,720	343	249	197	91	32	16	.1	.1	1.4
20	9.0	600	1,440	278	236	173	85	32	9.3	.1	.1	.6
21	50	456	975		223	151	82	30	7.0	.1	.1	.5
22	193	380	628		210	141	82	27	6.4	.1	.1	.4
23	292	309	456	190	249	131	74	24	10	.2	2.4	.3
24	326	262	343		399	131	71	22	9.3	.1	.3	.2
25	247	218	309		380	141	71	19	7.7	.1	.2	.5
26	180	206	373		1,440	141	68	21	5.8	.2	.1	.2
27	145	193	437		1,140	110	66	19	5.2	.6	.1	.3
28	116	247	399	110	720	113	64	17	3.6	.5	.1	.3
29	111	218	399		-------	210	66	17	3.0	.2	.1	.8
30	115	150	362		-------	236	62	16	2.8	.1	.1	.6
31	145	-------	456		-------	197	-------	15	-------	.1	.1	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	326	5.0	66.0	0.263	0.30
November	1,840	90	452	1.80	2.01
December	2,720	----------	513	2.04	2.35
January	2,570	----------	734	2.92	3.37
February	1,440	100	466	1.86	1.93
March	2,120	110	425	1.69	1.95
April	582	62	144	.574	.64
May	58	15	33.8	.135	.16
June	30	2.8	8.46	.034	.04
July	3.6	.1	.823	.003	.003
August	6.4	.1	.474	.002	.002
September	3.6	.1	.737	.003	.003
The year	2,720	.1	236	.940	12.76

PAINT CREEK NEAR BOURNEVILLE, OHIO

LOCATION.—Water-stage recorder at highway bridge 1¼ miles southwest of Bourneville, Ross County, and 1¼ miles above Twin Creek.

DRAINAGE AREA.—808 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1930.

EXTREMES.—Maximum discharge during year, 15,700 second-feet Dec. 19 (gage height, 13.6 feet); minimum, 6.7 second-feet Aug. 13, 14 (gage height, 2.24 feet).

1923–1930: Maximum discharge, 27,700 second-feet Aug. 20, 1926 (gage height, 17.9 feet); minimum, that of Aug. 13, 14, 1930.

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	459	830		444	1,570	708	220	63	27	16	10
2	39	1,030	780		475	1,390	2,050	213	61	26	12	8.9
3	37	1,050		1,900	724	1,150	1,100	207	57	25	13	10
4	37	969	750		1,980	1,050		197	57	23	11	24
5	36	675			3,740	1,050		194	49	20	9.4	18
							630					
6	36	516	779		2,050	952		184	42	19	10	16
7	34	421	822	1,300	1,460	2,870		175	42	19	10	15
8	33	354			1,150	9,270	530	166	42	20	11	19
9	33	290	910	8,910	952	4,320	511	157	37	19	11	36
10	31	250		7,890	985	2,420	498	150	39	18	9.4	23
11	33	230		2,100	855	1,780	475	137	42	17	8.4	17
12	34	230		2,000	803	1,420	457	130	42	16	7.8	116
13	34	300	1,500	6,060	2,770	1,180	434	127	41	16	6.7	112
14	33	5,310		6,400	2,950	985	416	130	31	19	8.9	49
15	31	7,040		5,000	1,930	920	394	127	29	41	10	30
16	30	3,550	1,600	3,200	1,220	920	380	127	31	27	10	30
17	31	3,860	1,300	2,070	1,050	920	362	123	31	21	9.4	46
18	30	3,940	6,100	1,320	920	888	344	123	55	18	9.4	42
19	31	2,780	9,100	730	836	888	340	120	83	16	8.9	27
20	31	2,070	8,000	730	768	855	319	120	63	14	8.4	21
21	37	1,650			718	855	298	114	49	13	8.9	21
22	721	1,390			669	836	269	107	45	11	13	19
23	674	1,220	2,000	510	752	803	252	96	42	10	16	14
24	735	1,120			1,100	784	245	87	33	11	14	12
25	658	985			1,320	768	245	81	31	10	14	15
26	488	920			5,740	752	238	81	34	12	14	12
27	372	920			3,680	735	234	73	34	32	13	12
28	285	1,020	1,100	450	2,290	713	227	71	31	42	13	12
29	249	1,020			-------	702	227	71	30	26	12	11
30	269	900			-------	691	252	67	29	23	12	10
31	362	-------			-------	680	-------	65	-------	19	11	-----

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	735	30	178	0.220	0.25
November	7,040	230	1,550	1.92	2.14
December	9,100	----------	1,880	2.33	2.69
January	8,910	----------	2,100	2.60	3.00
February	5,740	444	1,580	1.96	2.04
March	9,270	680	1,460	1.81	2.09
April	2,050	227	478	.592	.66
May	220	65	130	.161	.19
June	83	29	41.8	.052	.06
July	42	10	20.3	.025	.03
August	16	6.7	11.0	.014	.02
September	116	8.9	26.9	.033	.04
The year	9,270	6.7	784	.970	13.21

LITTLE SALT CREEK NEAR JACKSON, OHIO

LOCATION.—Chain gage in SE. ¼ sec. 12, T. 7 N., R. 19 W., at highway bridge 3½ miles northwest of Jackson and half a mile below mouth of Rock Run.
DRAINAGE AREA.—76.5 square miles.
RECORDS AVAILABLE.—July, 1925, to September, 1930.
EXTREMES.—Maximum discharge during year, 885 second-feet Nov. 18 (gage height, 10.2 feet); minimum discharge, 0.8 second-foot July 26 and several days in August and September; minimum stage, 0.40 foot Aug. 12, 13.
1925–1930: Maximum discharge, 1,470 second-feet Aug. 18, 1926 (gage height, 13.2 feet); minimum discharge, 0.4 second-foot Sept. 9, 1925; minimum stage, 0.40 foot Aug. 12, 13, 1930.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	4.9	60	22	104	35	111	37	10.5	1.8	2.4	1.1	0.9
2	12.5	111	25	104	53	288	315	9.3	1.5	2.1	1.1	.8
3	12.5	288	25	132	86	193	193	8.2	1.5	1.4	1.1	1.0
4	12.1	139	22	86	217	169	111	7.4	1.5	1.1	1.1	1.1
5	8.5	68	21	66	792	193	80	6.4	1.5	1.0	1.1	.9
6	7.0	53	24	63	470	146	74	10.1	1.4	1.5	1.5	.8
7	4.9	44	30	58	177	405	74	10.1	1.4	1.1	1.8	.9
8	4.4	35	42	98	118	805	56	7.8	1.4	1.1	1.4	1.1
9	4.4	25	30	395	86	525	44	5.8	1.4	1.2	1.2	1.1
10	3.8	20	27	217	104	270	37	5.2	1.4	2.1	1.1	.9
11	3.3	24	28	86	74	169	35	5.8	1.4	1.6	.9	1.0
12	2.8	21	33	98	71	146	29	5.8	1.4	1.1	.8	1.6
13	3.8	19.2	28	185	146	98	26	6.4	1.4	1.1	.8	1.2
14	3.3	243	29	297	161	74	24	6.4	1.4	1.0	2.1	1.2
15	2.8	727	28	288	104	74	23	6.4	1.4	.9	1.8	1.6
16	2.5	279	27	185	80	58	22	6.8	1.3	1.0	1.3	6.4
17	2.8	325	29	98	63	48	21	5.5	11.7	.9	1.2	4.0
18	2.8	885	98	86	60	92	24	5.8	11.3	.9	.9	1.3
19	2.5	547	252	68	53	234	23	7.8	2.4	.9	.8	1.2
20	2.7	270	118	48	46	132	16.7	12.1	1.9	.9	.8	1.0
21	8.5	118	80	44	40	92	17.5	7.1	1.4	.9	.8	.9
22	261	92	48	42	37	66	17.5	5.2	1.4	1.1	1.0	.8
23	104	68	48	35	44	53	15.4	4.0	1.1	1.1	1.3	.8
24	37	60	44	35	51	51	14.1	3.8	5.8	.9	1.5	1.0
25	28	53	44	25	63	98	13.3	3.4	14.1	.9	1.3	1.2
26	23	44	42	23	385	98	12.1	2.9	3.1	.8	1.1	1.2
27	18.4	48	60	26	345	74	12.1	2.6	2.1	13.3	1.0	1.1
28	13.3	86	306	48	146	63	11.7	2.3	1.9	2.9	1.0	1.1
29	15.0	53	209	86	------	53	11.7	2.0	1.2	2.1	.9	1.0
30	42	37	132	60	------	48	11.7	2.0	1.1	1.3	.9	.9
31	161	------	111	46	------	42	------	1.9	------	1.1	1.0	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	261	2.5	26.3	0.344	0.40
November	885	19.2	161	2.11	2.35
December	306	21	66.5	.869	1.00
January	395	23	104	1.36	1.57
February	792	35	147	1.92	2.00
March	805	42	160	2.09	2.41
April	315	11.7	46.7	.610	.68
May	12.1	1.9	6.03	.079	.09
June	14.1	1.1	2.79	.036	.04
July	13.3	.8	1.67	.022	.03
August	2.1	.8	1.15	.015	.02
September	6.4	.8	1.33	.017	.02
The year	885	.8	59.8	.782	10.61

OHIO BRUSH CREEK BASIN

OHIO BRUSH CREEK NEAR WEST UNION, OHIO

LOCATION.—Chain gage at highway bridge 2 miles southwest of Cedar Mills and 7 miles east of West Union, Adams County.

DRAINAGE AREA.—388 square miles.

RECORDS AVAILABLE.—August, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, about 10,700 second-feet Nov. 14 (gage height, 12.9 feet); minimum discharge, 0.2 second-foot Aug. 4, Sept. 6–11; minimum stage, 0.84 foot Sept. 8.

1926–1930: Maximum discharge, about 12,600 second-feet Jan. 19, 1927 (gage height, 14.4 feet); minimum discharge, that of Aug. 4, Sept. 6–11, 1930; minimum stage, that of Sept. 8, 1930.

REMARKS.—Records good except those for periods of ice effect, Dec. 1–6, Jan. 20 to Feb. 1, and those for high water, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	354		402	120	477	115	77	4.4	1.6	0.3	0.3
2	29	4,230		1,080	205	617	3,690	61	4.4	1.2	.3	.3
3	24	1,460		1,700	838	402	838	51	4.4	.9	.3	.3
4	18	647	75	677	3,190	378	530	40	4.1	1.0	.2	.3
5	16	309		427	2,990	530	332	36	3.9	1.6	.3	.3
6	12	208		378	838	354	261	36	3.1	1.5	.3	.2
7	18	166	143	309	647	2,220	265	36	3.1	1.5	14	.2
8	14	132	647	4,230	477	3,590	198	31	2.7	1.0	40	.2
9	13	111	354	4,230	354	1,220	158	28	2.7	1.0	16	.2
10	11	99	186	1,700	530	805	132	24	2.7	1.0	11	.2
11	10	130	183	805	309	617	117	24	2.3	1.2	5.7	.2
12	10	119	214	647	289	502	107	27	2.3	1.5	3.6	.3
13	8.7	530	239	3,490	1,860	354	99	24	2.2	1.2	2.2	.3
14	8.7	5,220	231	4,010	677	269	99	22	2.0	1.5	3.1	.3
15	9.4	2,400	208	1,700	402	224	101	23	1.7	1.0	2.5	.4
16	7.3	870	221	805	239	189	96	28	1.7	19	2.3	.6
17	6.9	4,670	254	557	269	189	92	30	1.8	11	2.0	46
18	10	2,400	3,790	378	258	557	99	33	3.1	5.9	2.0	33
19	13	905	2,040	258	235	477	208	31	6.9	3.6	1.5	22
20	14	740	740		189	269	103	31	7.6	2.5	1.2	14
21	19	557	354		168	205	90	31	4.1	1.4	1.7	7.3
22	940	378	378	150	166	160	81	29	4.9	1.2	1.4	5.4
23	205	269	289		309	139	72	23	4.4	1.2	1.4	3.6
24	115	239	261		647	143	67	18	4.4	.8	1.0	2.7
25	201	205	269		477	180	64	13	3.6	.6	.7	3.4
26	115	180	269		6,300	208	59	10	3.1	.5	.6	402
27	75	171	870		1,620	171	57	8.7	2.0	.6	.5	72
28	59	265	1,080	230	677	214	57	8.0	1.5	.4	.5	25
29	52	183	617		-------	218	85	7.3	1.5	.5	.4	15
30	211	80	427		-------	158	101	6.6	.9	.5	.3	9.4
31	617	-------	354		-------	132	-------	5.4	-------	.3	.3	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	940	6.9	93.6	0.241	0.28
November	5,200	80	941	2.43	2.71
December	3,790	----------	486	1.25	1.44
January	4,230	----------	970	2.50	2.88
February	6,300	120	903	2.33	2.43
March	3,590	132	522	1.35	1.56
April	3,690	57	279	.719	.80
May	77	5.4	27.5	.071	.08
June	7.6	.9	3.25	.008	.009
July	19	.3	2.22	.006	.007
August	40	.2	3.79	.010	.01
September	402	.2	22.2	.057	.06
The year	6,300	.2	350	.902	12.27

WHITEOAK CREEK BASIN

WHITEOAK CREEK NEAR GEORGETOWN, OHIO

LOCATION.—Chain gage on highway bridge 600 feet below mouth of Opposum Run and 1¾ miles southwest of Georgetown, Brown County.

DRAINAGE AREA.—221 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,420 second-feet Dec. 18 (gage height, 9.6 feet); no flow July 17 to Aug. 7, Aug. 31, Sept. 2–18.

1923–1930: Maximum discharge, 6,800 second-feet Dec. 31, 1923 (gage height, 11.0 feet); no flow July 17 to Aug. 7, Aug. 31, Sept. 2–18, 1930.

REMARKS.—Records good except those estimated because of ice, Dec. 1–6, Jan. 20 to Feb. 2, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	139		263	25	156	50	41	2.0	26	0	0.1
2	2.8	735		785	40	166	2,720	32	1.4	2.6	0	0
3	2.1	641		1,610	325	145	450	24	.9	.5	0	0
4	2.5	309	20	342	1,420	145	293	19	.9	.3	0	0
5	2.5	117		156	2,720	200	135	17	.5	.2	0	0
6	1.8	74		125	470	156	125	15	.5	.9	0	0
7	1.9	52	50	166	250	470	135	14	.3	1.4	0	0
8	1.8	43	641	3,460	188	2,880	94	14	.2	.9	14	0
9	2.1	34	222	3,460	135	510	73	12	.2	.3	23	0
10	2.3	30	119	885	224	236	59	11	.3	.3	36	0
11	2.1	27	112	325	145	177	52	11	.2	.1	16	0
12	2.3	29	127	236	107	145	48	11	.1	.1	9.1	0
13	2.5	43	641	3,370	1,820	118	45	10	.1	.1	5.2	0
14	2.3	2,560	235	1,890	376	93	42	11	.1	.2	6.4	0
15	2.1	3,620	172	735	188	79	40	12	.1	.1	4.8	0
16	2.1	325	196	278	114	70	40	10	.1	.1	2.3	0
17	1.9	1,610	394	156	96	66	38	10	.4	0	1.4	0
18	1.6	1,170	4,230	104	90	73	42	14	5.6	0	.7	0
19	2.5	359	2,720	73	88	118	52	12	15	0	.3	.1
20	2.5	309	309	50	82	104	42	14	27	0	.2	11
21	20	278	125		73	72	34	11	12	0	.1	6.8
22	785	135	125		68	61	29	12	8.1	0	.1	4.0
23	209	96	99		104	50	28	11	4.4	0	.1	2.0
24	161	79	101		325	47	26	8.6	145	0	5.6	.5
25	209	73	107		293	58	25	7.2	32	0	34	.3
26	91	66	118	30	3,960	68	23	6.0	6.8	0	2.9	42
27	48	64	278		641	62	23	5.2	2.9	0	.4	21
28	33	91	687		236	62	22	4.4	1.7	0	.2	17
29	24	117	278		-------	79	68	2.9	.9	0	.1	8.1
30	39	34	211		-------	90	70	2.6	.9	0	.1	4.8
31	105	-------	200		-------	65	-------	2.6	-------	0	0	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	785	1.6	57.0	.258	0.30
November	3,620	27	442	2.00	2.23
December	4,230	----------	407	1.84	2.12
January	3,460	----------	606	2.74	3.16
February	3,960	25	522	2.36	2.46
March	2,880	47	220	.995	1.15
April	2,720	22	164	.742	.83
May	41	2.6	12.5	.057	.07
June	145	.1	9.02	.041	.05
July	26	0	1.10	.005	.006
August	36	0	5.26	.024	.03
September	42	0	3.92	.018	.02
The year	4,230	0	202	.914	12.43

LITTLE MIAMI RIVER BASIN

LITTLE MIAMI RIVER AT SPRING VALLEY, OHIO

LOCATION.—Chain gage in R. 5, T. 4, at highway bridge three-eighths mile southwest of Spring Valley, Greene County, and 2½ miles below mouth of Sugar Creek.

DRAINAGE AREA.—361 square miles.

RECORDS AVAILABLE.—September, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,350 second-feet Jan. 13 (gage height, 10.50 feet); minimum, 36 second-feet Aug. 12, 20, Sept. 29 (gage height, 1.74 feet).

1925–1930: Maximum discharge, 14,800 second-feet Feb. 26, 1929 (gage height, 16.8 feet); minimum discharge, that of Aug. 12, 20, Sept. 29, 1930; minimum gage height, 1.45 feet July 25, 1926.

REMARKS.—Records good except those for period of ice effect, Dec. 1–6, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	251		a 553	245	586	374	155	92	60	39	69
2	88	790		a 620	245	554	586	145	83	58	40	48
3	85	546		a 686	347	430	460	145	85	56	37	45
4	85	402	280	753	490	430	347	135	85	56	37	42
5	84	304		546	654	430	308	135	83	57	53	42
6	82	251		458	490	402	321	135	95	60	98	38
7	79	225	188	516	402	1,130	282	131	93	56	61	39
8	78	200	251	3,440	347	1,550	258	127	85	53	49	48
9	76	176	318	4,080	334	845	233	124	82	56	45	43
10	78	164	278	4,410	347	619	221	120	95	53	40	38
11	79	200	264	1,260	308	554	221	120	83	51	38	38
12	76	200	264	1,460	334	490	210	122	79	51	36	39
13	79	278	680	5,230	2,520	402	198	114	77	69	37	41
14	74	1,260	1,160	5,110	1,040	347	198	120	72	56	42	39
15	76	1,120	a 838	2,340	619	334	210	116	76	53	42	47
16	74	645	516	1,000	430	321	210	116	77	51	39	56
17	76	866	645	689	402	308	221	109	90	52	37	61
18	76	945	3,150	586	402	321	210	105	198	46	39	48
19	74	645	2,970	430	374	321	187	127	90	48	37	45
20	76	430	a 1,770	430	374	295	187	145	90	46	36	41
21	140	374	578	430	347	270	198	127	79	43	39	41
22	486	332	486	374	321	245	198	112	76	43	51	39
23	578	291	402	347	374	245	176	109	69	43	54	37
24	486	264	374	321	430	258	176	120	76	41	45	37
25	374	238	346	347	490	334	166	109	7[illegible]	41	38	43
26	278	225	318	270	3,340	321	166	103	7[illegible]	109	39	58
27	238	225	318	282	1,260	258	155	102	68	58	38	41
28	212	278	402	295	765	282	166	102	63	52	37	38
29	188	291	374	258	-------	402	155	102	62	48	38	36
30	188	374	374	245	-------	430	155	98	6[illegible]	45	37	37
31	188	-------	486	245	-------	334	-------	95	-------	43	58	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	578	74	160	0.443	0.51
November	1,260	164	426	1.18	1.32
December	3,150	188	627	1.74	2.01
January	5,230	245	1,230	3.41	3.93
February	3,340	245	644	1.78	1.85
March	1,550	245	453	1.25	1.44
April	586	155	238	.659	.74
May	155	95	120	.332	.38
June	198	61	83.8	.232	.26
July	109	41	53.4	.148	.17
August	98	36	43.7	.121	.14
September	69	36	43.8	.121	.13
The year	5,230	36	342	.947	12.88

a Interpolated.

LITTLE MIAMI RIVER AT MILFORD, OHIO

LOCATION.—Water-stage recorder 500 feet below highway bridge in Milford, Clermont County, 1¼ miles above mouth of East Fork.

DRAINAGE AREA.—1,190 square miles.

RECORDS AVAILABLE.—March, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 32,100 second-feet Nov. 14 (gage height, 11.8 feet); minimum, 45 second-feet Aug. 21, 30 (gage height, 1.20 feet).

1925–1930: Maximum discharge, 46,300 second-feet Dec. 14, 1927 (gage height, 13.8 feet); minimum, 38 second-feet Sept. 9, 1925 (gage height, 0.60 foot).

REMARKS.—Records good except those for extremely high water and for period of ice effect, Jan. 19 to Feb. 2, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	1,000	632	1,970	700	2,110	1,980	402	178	97	68	68
2	132	3,700	712	5,080	1,970	4,370	375	171	94	60	90	
3	138	2,410	712	5,640	1,000	1,690	2,410	348	165	90	55	598
4	135	1,620	712	2,860	2,860	1,430	1,690	343	165	90	57	135
5	140	1,120	632	1,970	4,460	1,690	1,180	338	161	86	62	97
6	135	840	595	1,690	2,410	1,560	1,060	328	149	90	62	83
7	132	730	712	2,330	1,830	3,230	950	323	152	85	93	74
8	130	589	1,880	12,500	1,430	11,500	755	303	158	83	454	103
9	127	500	1,430	13,800	1,180	4,410	712	293	145	86	108	108
10	127	475	1,180	11,600	1,300	2,710	670	289	142	77	81	85
11	120	546	1,060	5,210	1,180	2,260	632	284	142	85	70	69
12	123	589	1,180	4,110	1,230	1,970	595	284	145	83	69	72
13	130	3,160	2,490	13,800	11,400	1,560	595	270	134	88	62	66
14	118	16,500	3,160	14,300	4,210	1,300	595	265	131	94	60	64
15	123	10,000	2,710	7,610	2,560	1,060	670	260	131	65	66	79
16	118	3,160	1,970	3,480	1,690	1,000	595	265	134	94	63	190
17	114	4,480	2,940	2,410	1,430	950	632	260	155	68	60	306
18	114	3,760	11,800	1,830	1,300	950	595	256	168	66	60	139
19	130	2,710	11,900		1,180	1,060	525	265	338	60	60	105
20	138	1,970	3,860		1,180	950	492	318	208	66	60	83
21	1,190	1,690	2,110	950	1,060	802	492	338	165	66	50	77
22	2,980	1,300	1,690		1,000	755	492	298	139	72	56	72
23	1,690	1,060	1,430		1,300	712	492	260	136	76	57	68
24	1,830	1,000	1,300		1,970	670	460	242	134	66	70	69
25	1,240	900	1,180		2,110	802	431	230	117	60	74	247
26	840	802	1,180		14,100	950	431	238	117	55	69	201
27	589	802	1,300		6,080	802	402	225	110	77	63	112
28	475	900	1,970	700	2,860	755	431	208	108	68	62	90
29	475	950	1,690			1,000	460	204	105	88	55	77
30	730	632	1,560			1,180	431	197	105	74	57	64
31	895		1,830			1,000		186		69	62	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,980	114	500	0.420	0.48
November	16,500	475	2,330	1.96	2.19
December	11,900	595	2,240	1.88	2.17
January	14,300		3,970	3.34	3.85
February	14,100		2,700	2.27	2.36
March	11,500	670	1,770	1.49	1.72
April	4,370	402	874	.734	.82
May	402	186	280	.235	.27
June	338	105	150	.126	.14
July	97	55	78.0	.066	.08
August	454	50	77.6	.065	.07
September	598	64	123	.103	.11
The year	16,500	50	1,250	1.05	14.26

EAST FORK OF LITTLE MIAMI RIVER AT PERINTOWN, OHIO

LOCATION.—Chain gage on highway bridge at Perintown, Clermont County, 5 miles above junction with Little Miami River.

DRAINAGE AREA.—477 square miles.

RECORDS AVAILABLE.—May, 1915, to May, 1920; January, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 17,900 second-feet Nov. 14 (gage height, 16.7 feet); minimum discharge, 0.3 second-foot July 24; minimum gage height, 0.32 foot Aug. 1, 2, 4, 29.

1915–1920: Maximum stage, 19.77 feet Apr. 20, 1920; minimum, −0.18 foot Oct. 3–6, 1917. Discharge not determined.

1925–1930: Maximum discharge, 20,700 second-feet Feb. 14, 1926 (gage height, 18.0 feet); minimum discharge, that of July 24, 1930; minimum gage height, that of Aug. 1, 2, 4, 29, 1930.

REMARKS.—Records good except those for periods of ice effect, Nov. 30 to Dec. 6, Dec. 21–25, Jan. 19 to Feb. 2, which are fair, and those for periods of extremely low water, which are poor.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	515		515	80	415	112	37	9.6	2.6	1.5	2.0
2	19	1,570		1,390	80	377	4,340	33	7.4	2.1	1.2	2.3
3	14	1,390		2,440	272	415	1,230	30	6.8	2.3	1.4	2.3
4	11	840	80	750	2,040	288	660	27	5.7	2.3	1.2	1.9
5	11	339		377	4,010	339	322	24	4.9	1.8	1.6	1.5
6	11	182		304	1,130	435	225	21	5.4	1.4	1.7	1.8
7	9.6	154	97	304	615	1,760	196	22	5.7	1.6	2.0	1.8
8	10	123	1,080	7,420	415	5,860	154	21	4.4	1.1	1.8	2.1
9	10	97	660	8,680	304	1,330	119	23	4.0	1.3	1.8	1.8
10	10	82	377	3,110	396	615	99	22	4.0	1.1	1.8	1.8
11	10	89	240	1,030	377	435	82	29	4.9	1.0	1.6	3.7
12	8.8	97	415	750	240	358	72	24	4.4	1.1	1.8	11
13	8.8	2,040	1,030	7,830	4,230	288	69	16	3.8	1.4	1.8	18
14	8.0	9,580	660	5,740	1,080	196	72	16	3.8	1.1	2.3	14
15	9.2	6,770	475	1,830	515	168	138	16	4.4	1.1	2.0	12
16	6.8	1,230	535	750	256	149	74	16	3.7	.9	2.3	83
17	7.4	2,200	1,760	415	240	123	131	16	4.4	1.0	1.8	25
18	7.4	2,040	5,740	272	210	133	83	15	3.8	1.0	2.0	93
19	6.0	930	6,640		196	196	66	17	3.9	1.3	2.0	44
20	6.0	705	930		179	182	62	18	3.3	.6	1.8	27
21	14	535			160	126	56	17	3.5	.5	1.6	19
22	1,570	358			138	107	55	16	3.7	.5	2.5	12
23	750	240	250		272	95	48	14	3.7	.5	2.4	8.4
24	930	196			660	85	42	22	3.7	.4	2.5	8.0
25	615	210		100	615	103	38	17	3.2	.5	1.9	6.6
26	288	165	182		11,200	121	36	16	2.9	.9	1.9	4.6
27	165	160	575		1,970	119	36	16	3.0	2.3	1.8	4.0
28	119	196	1,230		660	116	38	15	2.4	1.9	1.5	3.5
29	93	225	795		-------	123	43	14	1.9	1.4	1.2	2.5
30	97	180	535		-------	160	61	13	2.3	1.2	1.8	1.9
31	225	-------	455		-------	144	-------	10	-------	1.6	2.3	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,570	6.0	164	0.344	0.40
November	9,580	82	1,110	2.33	2.60
December	6,640	----------	843	1.77	2.04
January	8,680	----------	1,460	3.06	3.53
February	11,200	80	1,160	2.43	2.53
March	5,860	85	496	1.04	1.20
April	4,340	36	292	.612	.68
May	37	10	19.8	.042	.05
June	9.6	1.9	4.27	.0090	.010
July	2.6	.4	1.28	.0027	.003
August	2.5	1.2	1.83	.0038	.004
September	93	1.5	14.0	.029	.03
The year	11,200	.4	460	.964	13.08

LICKING RIVER BASIN

LICKING RIVER AT FARMERS, KY.

LOCATION.—Chain gage at highway bridge on Rowan-Bath County line, 200 feet above Chesapeake & Ohio Railway bridge and three-fourths mile west of Farmers. Zero of gage 635.70 feet above mean sea level.

DRAINAGE AREA.—768 square miles.

RECORDS AVAILABLE.—May, 1928, to September, 1930. July, 1915 to June, 1920, at site 300 feet downstream.

EXTREMES.—Maximum discharge during year, 9,240 second-feet Feb. 5 (gage height, 20.27 feet); minimum discharge, 1.0 second-foot Sept. 30; minimum stage, 1.31 feet Sept. 10, 11.

1928–1930: Maximum discharge, 11,400 second-feet June 30, 1928 (gage height, 25.6 feet); minimum occurred in 1930.

REMARKS.—Records good below 1,500 second-feet; others fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	1,900	256	2,440	1,320	780	555	304	84	22	10	6.4
2	139	1,500	213	2,200	780	780	668	272	79	18	8.4	6.0
3	199	1,500	227	1,960	645	870	780	256	66	16	8.0	5.7
4	162	2,360	287	1,720	1,100	735	870	227	60	14	7.6	5.4
5	139	2,540	242	1,280	8,790	735	915	213	55	14	8.8	4.8
6	139	2,080	1e6	1,140	8,090	690	1,230	186	54	12	20	4.2
7	124	915	256	1,050	5,000	668	1,280	162	46	12	9.2	3.9
8	108	555	510	870	3,340	2,130	1,140	139	42	14	8.0	3.6
9	256	430	690	1,860	1,680	2,260	1,050	128	40	13	14	3.9
10	124	470	645	1,820	1,460	2,000	915	114	36	12	14	3.6
11	76	320	555	1,280	1,230	1,820	690	139	34	14	12	3.6
12	66	304	510	1,000	1,000	1,770	600	390	32	16	10	5.4
13	63	320	450	825	1,540	1,820	580	242	28	24	16	5.7
14	66	450	555	960	2,900	1,680	532	199	24	33	18	6.8
15	59	2,220	354	1,320	2,940	1,500	490	213	21	40	30	6.4
16	80	1,640	337	1,460	2,310	1,180	390	173	41	35	33	6.0
17	71	2,040	320	1,000	2,080	960	372	150	51	30	25	5.4
18	45	3,520	1,500	915	1,820	915	354	173	52	25	17	4.8
19	42	4,500	2,260	622	1,280	1,140	304	354	44	14	12	3.9
20	40	3,930	1,540	555	1,050	1,590	272	780	32	12	9.2	3.3
21	36	1,860	1,500	510	915	1,590	272	915	30	11	8.4	2.8
22	50	1,360	1,230	430	825	1,540	256	735	24	9.6	8.0	3.0
23	88	960	1,050	510	780	1,540	227	490	16	8.8	8.4	2.8
24	410	600	825	450	1,000	1,320	213	390	21	8.0	8.8	2.4
25	510	532	735	410	1,180	1,500	199	242	48	7.6	7.6	3.0
26	337	470	645	690	1,100	1,460	1e6	199	42	7.6	7.6	2.5
27	213	390	1,140	622	960	1,320	162	173	37	25	7.2	2.5
28	173	354	2,220	1,590	870	1,320	162	150	30	18	7.6	2.2
29	128	430	3,880	2,720	-------	1,230	227	108	25	17	6.8	1.9
30	122	337	3,160	2,310	-------	1,140	320	94	22	14	7.2	1.0
31	1,540	-------	2,670	1,770	-------	1,050	-------	87	-------	11	6.8	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,540	36	183	0.238	0.27
November	4,500	304	1,360	1.77	1.98
December	3,880	186	998	1.30	1.50
January	2,720	410	1,240	1.61	1.86
February	8,790	645	2,070	2.70	2.81
March	2,260	668	1,320	1.72	1.98
April	1,280	162	540	.703	.78
May	915	87	271	.353	.41
June	84	16	40.5	.053	.06
July	40	7.6	17.0	.022	.03
August	33	6.8	12.1	.016	.02
September	6.8	1.0	4.10	.005	.006
The year	8,790	1.0	662	.862	11.71

LICKING RIVER AT CATAWBA, KY.

LOCATION.—Water-stage recorder three-fourths mile east of Catawba, Pendleton County, and three-fourths mile above mouth of Kinkaid Creek. Zero of gage 498.37 feet above mean sea level.

DRAINAGE AREA.—3,300 square miles.

RECORDS AVAILABLE.—July, 1928, to September, 1930. July, 1916, to September, 1920, at site half a mile downstream.

EXTREMES.—Maximum discharge during year, 31,500 second-feet Feb. 5 (gage height, 24.3 feet); minimum, 2.5 second-feet Aug. 5 (gage height, 4.16 feet).

1928–1930: Maximum discharge, 43,200 second-feet Feb. 27, 1929 (gage height, 29.9 feet); minimum, that of Aug. 5, 1930.

Flood of Apr. 21, 1920, reached stage of 36.9 feet.

REMARKS.—Records excellent.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	612	6,520	1,020	6,520	4,770	4,320	1,910	821	222	33	7.2	16
2	540	14,100	920	6,150	3,480	3,610	6,150	920	20[illegible]	31	5.7	15
3	453	14,800	832	6,840	2,920	4,030	4,700	732	183	31	4.4	14
4	410	13,200	936	6,200	8,080	3,750	3,480	642	175	29	3.3	11
5	347	9,620	912	5,720	29,400	3,160	2,530	561	156	29	2.9	11
6	294	6,360	762	4,170	29,400	2,980	2,310	498	148	29	4.4	9.0
7	294	4,170	840	3,700	20,400	5,520	2,360	428	137	29	5.7	8.0
8	294	2,750	1,650	12,400	15,500	11,700	2,640	386	12[illegible]	28	7.2	10
9	264	1,960	1,860	22,300	13,200	12,500	2,360	352	118	26	7.2	7.2
10	240	1,580	1,910	18,800	6,600	11,200	2,010	330	111	22	9.0	6.4
11	213	1,360	1,810	11,800	3,890	7,640	1,720	330	10[illegible]	20	7.2	5.7
12	183	1,200	1,680	7,160	3,280	5,880	1,500	330	89	17	5.7	5.7
13	164	2,380	1,540	7,480	6,530	5,560	1,360	320	83	17	5.7	5.7
14	141	8,930	1,450	11,400	7,800	4,770	1,240	342	73	17	13	5.7
15	134	9,110	1,360	12,800	9,280	3,750	1,200	352	7[illegible]	16	19	5.7
16	124	12,200	1,540	11,000	7,960	3,040	1,160	364	83	14	16	7.2
17	111	13,000	1,860	7,960	6,360	2,580	1,080	398	8[illegible]	12	15	7.2
18	100	12,000	9,410	5,240	4,920	2,420	1,290	446	73	10	13	6.4
19	94	11,800	11,100	3,480	3,750	3,040	1,280	538	69	6.4	10	5.7
20	97	9,960	8,770	2,580	3,100	2,980	968	1,360	7[illegible]	8.0	15	6.5
21	124	7,480	7,000	2,310	2,640	3,040	872	1,580	6[illegible]	7.2	26	29
22	3,660	5,560	4,470	2,260	2,260	2,860	792	1,630	57	6.4	34	29
23	2,160	3,280	3,100	1,780	2,060	2,640	710	1,450	53	5.7	29	23
24	1,500	2,310	2,480	2,420	2,010	2,480	642	1,160	50	6.4	23	20
25	1,240	1,910	2,210	1,720	2,480	2,360	605	888	55	9.0	17	18
26	1,020	1,680	2,010	1,810	8,420	2,260	561	665	39	10	17	17
27	992	1,540	2,590	1,580	10,200	2,800	540	533	34	12	21	15
28	770	1,400	5,690	3,840	6,920	3,220	519	428	3[illegible]	14	23	12
29	628	1,240	9,280	10,300	-------	2,700	554	364	3[illegible]	13	21	8.0
30	2,350	1,120	10,500	10,600	-------	2,360	554	300	31	10	18	7.2
31	7,320	-------	8,600	7,640	-------	2,110	-------	264	-------	8.0	18	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,320	94	867	0.263	0.30
November	14,800	1,120	6,150	1.86	2.08
December	11,100	762	3,550	1.08	1.24
January	22,300	1,580	7,100	2.15	2.48
February	29,400	2,010	8,130	2.46	2.56
March	12,500	2,110	4,300	1.30	1.50
April	6,150	519	1,650	.500	.56
May	1,630	264	636	.193	.22
June	222	31	94.1	.029	.03
July	33	5.7	17.0	.0052	.006
August	34	2.9	13.7	.0042	.005
September	29	5.7	11.6	.0035	.004
The year	29,400	2.9	2,670	.809	10.98

SOUTH FORK OF LICKING RIVER AT HAYES, KY.

LOCATION.—Chain gage at county highway bridge half a mile northeast of Hayes, Pendleton County, and 2½ miles south of Falmouth. Zero of gage 538.10 feet above mean sea level.

DRAINAGE AREA.—922 square miles.

RECORDS AVAILABLE.—July, 1916, to July, 1920; May, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 15,200 second-feet Feb. 5 (gage height, 12.9 feet); no flow most of period July 17 to Sept. 30.

1916–1920, 1928–1930: Maximum discharge, about 30,000 second-feet Apr. 21, 1920 (gage height, 19.05 feet, present datum); minimum occurred in 1930.

REMARKS.—Records good. Discharge estimated Jan. 23–29 because of ice.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	147	2,900	250	1,130	1,210	1,210	250	96	36	4.6	0	0
2	118	6,380	250	1,810	830	900	2,600	94	36	3.8	0	0
3	100	7,980	235	1,930	700	970	1,050	102	32	2.6	0	0
4	90	5,870	235	1,590	2,450	900	730	87	31	1.8	0	0
5	87	3,350	268	1,300	14,000	730	515	72	27	1.8	0	0
6	74	1,700	206	1,050	11,700	670	422	64	24	1.2	0	0
7	66	1,050	191	900	3,950	1,810	380	59	22	.8	0	0
8	56	760	700	5,870	2,050	3,500	340	52	20	.8	0	0
9	54	590	640	12,100	1,390	3,800	302	45	18	.7	0	0
10	50	490	700	8,360	1,130	2,600	250	45	18	.4	0	0
11	47	400	565	3,650	830	1,590	220	42	16	.2	0	0
12	45	360	490	2,180	760	1,300	220	42	14	.2	0	0
13	43	1,590	445	3,650	2,450	970	206	41	12	.2	0	0
14	39	5,060	422	4,900	2,750	795	206	46	12	.4	0.1	0
15	37	3,800	400	4,900	2,450	640	191	47	10	.2		0
16	39	5,380	490	4,100	1,390	565	191	52	11	.1	0	.1
17	38	4,260	590	2,180	1,130	515	180	52	10	0	0	.1
18	36	3,950	6,720	1,490	900	490	169	56	9.5	.1	0	0
19	35	3,800	3,800	1,130	795	640	268	66	7.5	0	0	0
20	31	2,180	2,180	760	670	540	191	62	7.5	0	0	0
21	48	1,300	1,390	795	565	468	177	206	6.6	0	0	0
22	1,810	970	900	700	490	400	155	340	5.8	0	0	0
23	830	700	830	640	468	340	142	220	4.6	0	0	0
24	900	615	640	830	468	320	130	155	6.2	0	0	0
25	615	540	670	830	445	320	120	113	9.5	0	0	0
26	422	445	565	830	10,200	360	111	87	6.6	.1	0	0
27	302	400	760	760	3,800	380	113	72	6.2	.1	0	0
28	235	360	1,300	970	1,700	380	115	60	5.8	.1	0	0
29	180	320	3,050	3,050	-------	360	107	50	4.6	0	0	0
30	760	285	2,750	3,500	-------	340	102	43	4.6	0	0	0
31	3,350	-------	1,590	1,930	-------	302	-------	39	-------	0	0	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,350	31	345	0.374	0.43
November	7,980	285	2,260	2.45	2.73
December	6,720	191	1,100	1.19	1.37
January	12,100	640	2,570	2.79	3.22
February	14,000	445	2,560	2.78	2.90
March	3,800	302	939	1.02	1.18
April	2,600	102	338	.367	.41
May	340	39	84.1	.091	.10
June	36.0	4.6	14.5	.016	.02
July	4.6	0	.65	.0007	.0008
August	.1	0	0	0	0
September	.1	0	.01	0	0
The year	14,000	0	840	.911	12.36

MIAMI RIVER BASIN

MIAMI RIVER AT SIDNEY, OHIO

LOCATION.—Water-stage recorder at North Street Bridge at Sidney, Shelby County. Zero of gage 924.74 feet above mean sea level.

DRAINAGE AREA.—543 square miles.

RECORDS AVAILABLE.—February, 1914, to September, 1930.

EXTREMES.—Maximum discharge during year, about 13,800 second-feet Jan. 13 (gage height, 12.2 feet); minimum, 26 second-feet Aug. 4 (gage height, 0.92 foot).

1914–1930: Maximum discharge, about 20,700 second-feet Mar. 20, 1927 (gage height, 14.4 feet); minimum, 9 second-feet Sept. 18, 19, 1917 (gage height, −1.5 feet).

Maximum stage known, 19.6 feet Mar. 25, 1913 (discharge estimated by Miami Conservancy District at 44,000 second-feet).

REMARKS.—Records good except those for extremely high water, for periods of ice effect, Nov. 29 to Dec. 7, Dec. 21–25, Jan. 18 to Feb. 1, and for other estimated periods, which are fair.

Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	375		2,620	435	1,420	513	165	93	90	34	
2	58	1,140		3,720	454	1,140	493	163	88	82	30	
3	62	1,090	a 95	3,880	513	885	435	158	84	78	33	a 120
4	64	690		2,440	645	785	363	147	80	71	27	
5	64	473		1,550	735	690	300	149	82	71	35	
6	64	380		1,200	645	645	271	158	164	69	39	
7	56	346	a 130	2,780	556	690	257	149	178	66	50	
8	58	346	679	10,900	513	985	271	144	125	64	44	a 70
9	56	330	690	11,600	513	935	300	140	111	59	43	
10	84	346	398	11,600	513	785	330	134	99	59	40	
11	140	690	330	6,740	454	690	330	136	95	56	33	
12	144	785	363	6,810	734	645	315	151	90	53	38	
13	142	690	2,610	12,500	2,620	556	315	136	80	64	30	a 60
14	144	1,090	3,550	12,600	1,820	513	380	127	77	82	36	
15	138	1,200	2,620	9,430	1,140	493	363	132	73	78	34	
16	142	935	1,750	5,640	645	473	300	125	109	69	35	
17	140	735	2,220	3,450	473	473		123	151	62	34	
18	136	735	4,100		380	534		121	121	56	30	a 63
19	134	690	3,450	a 1,440	398	690	a 250	154	243	53	36	
20	136	600	2,120		493	645		190	160	51	34	
21	178	493	1,200		534	534		154	125	45	36	
22	424	435			493	380	257	127	107	47	36	
23	938	398	a 610	a 560	690	271	243	121	113	43	38	a 65
24	985	230			2,100	286	216	127	262	43	43	
25	785	178			5,600	724	203	115	271	44	34	
26	534	154	600		9,480	985	190	111	257	36	a 33	
27	380	160	600		3,790	735	178	103	243	38	a 32	
28	315	178	690	a 440	2,040	690	178	105	160	39	31	a 90
29	286	a 130	785		-------	835	178	103	119	40	38	
30	300		735		-------	785	178	99	97	35	36	
31	286	-------	1,170		-------	600	-------	97	-------	35	a 80	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	985	56	240	0.440	0.51
November	1,200	----------	535	.982	1.10
December	4,100	----------	1,091	2.00	2.31
January	11,600	----------	3,846	7.06	8.14
February	9,480	380	1,407	2.58	2.69
March	1,420	271	693	1.27	1.46
April	513	178	287	.527	.59
May	190	97	134	.246	.28
June	271	73	135	.248	.28
July	90	35	57.4	.105	.12
August	80	27	37.2	.068	.08
September	----------	----------	78.0	.143	.16
The year	11,600	27	711	1.30	17.72

a Estimated.

MIAMI RIVER AT TAYLORSVILLE, OHIO

LOCATION.—Water-stage recorder at outlet works of Taylorsville Dam, three-fourths mile north of Taylorsville, Montgomery County. Zero of gage 700.00 feet above mean sea level.

DRAINAGE AREA.—1,160 square miles.

RECORDS AVAILABLE.—January, 1922, to September, 1930. January, 1914, to September, 1917, at Tadmor.

EXTREMES.—Maximum discharge during year, 20,600 second-feet Jan. 10 (gage height, 72.38 feet); minimum, 62 second-feet Aug. 5 (gage height, 61.35 feet).

1922–1930: Maximum discharge, 26,700 second-feet June 9, 1924 (gage height, 72.6 feet); minimum discharge, 48 second-feet Sept. 7–9, 1925; minimum gage height, that of Aug. 5, 1930.

Discharge of flood of March, 1913, estimated by Miami Conservancy District at 127,000 second-feet.

REMARKS.—Records excellent except those for periods of ice effect, Nov. 30 to Dec. 7, Dec. 21–26, Jan. 19 to Feb. 4, and other estimated periods, which are fair. Flow at high stages automatically regulated at retarding basins on Miami River and Loramie Creek. Gage-height record and part of discharge measurements furnished by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		490		3,820		3,480	1,060	366	204	185	83	224
2		1,450		6,120		2,610	1,140	343	196	166	83	271
3	140	1,880		8,770	850	1,880	1,020	343	192	151	86	189
4		1,310		5,670	1,020	1,490	770	343	185	148	83	148
5	134	875	235	3,350	1,310	1,310	680	320	204	148	80	137
6	134	680		2,500	1,220	1,140	622	343	465	144	131	141
7	124	568		3,380	1,020	1,140	595	343	366	141	111	124
8	127	516	540	13,400	945	1,680	542	320	320	137	105	102
9	118	516	1,140	19,600	910	1,780	516	320	257	137	108	99
10	118	490	875	20,100	910	1,400	542	320	253	124	102	96
11	111	788	650	15,400	840	1,220	542	297	228	121	96	96
12	177	1,220	650	9,430	1,050	1,140	542	297	212	96	90	105
13	200	1,060	1,780	14,300	4,590	980	542	320	208	115	83	115
14	192	1,590	6,760	17,800	3,690	910	622	343	189	131	83	96
15	204	2,280	5,500	17,000	2,280	840	710	275	181	124	77	102
16	204	1,780	4,020	12,200	1,490	805	650	237	266	137	80	141
17	204	1,400	4,000	7,120	1,060	840	595	253	320	127	77	124
18	208	1,400	7,900	4,300	945	840	710	262	415	121	77	111
19	208	1,310	8,550	2,600	910	980	595	284	542	108	74	108
20	208	1,310	5,120	1,900	1,020	1,020	516	343	366	99	72	99
21	262	1,140	2,850		1,220	910	490	343	288	93	83	90
22	516	945	1,880		1,140	805	595	297	241	99	93	86
23	862	710	1,490	1,300	1,310	622	542	266	212	99	99	99
24	1,220	650	1,310		2,410	568	490	271	320	93	83	99
25	1,060	440	1,220		9,200	860	440	257	559	90	74	148
26	840	390	1,140		13,800	1,780	415	241	415	90	80	141
27	622	390	1,140		11,000	1,400	390	228	390	115	77	159
28	490	415	1,220		5,240	1,140	390	224	343	108	80	137
29	440	366	1,310	920	-------	1,490	390	220	249	93	77	148
30	415	284	1,310		-------	1,490	390	216	196	93	80	137
31	440	-------	1,780		-------	1,220	-------	208	-------	86	163	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,220	111	335	0.289	0.33
November	2,280	284	955	.823	.92
December	8,550	----------	2,120	1.83	2.11
January	20,100	----------	6,480	5.59	6.44
February	13,800	----------	2,610	2.25	2.34
March	3,480	568	1,280	1.10	1.27
April	1,140	390	3,600	3.10	3.46
May	366	208	292	.252	.29
June	559	181	293	.253	.28
July	185	86	120	.103	.12
August	163	72	89.4	.077	.09
September	271	86	129	.111	.12
The year	20,100	72	1,520	1.31	17.77

MIAMI RIVER AT DAYTON, OHIO

LOCATION.—Staff gage at Main Street Bridge at Dayton, Montgomery County. Zero of gage 721.00 feet above mean sea level.

DRAINAGE AREA.—2,510 square miles.

RECORDS AVAILABLE.—March, 1905, to December, 1909; April, 1913, to September, 1930.

EXTREMES.—Maximum discharge during year, 38,900 second-feet Jan. 9 (gage height, 12.2 feet); minimum, 250 second-feet Aug. 5, 17, 19 (gage height, 0.4 foot).

1913–1930: Maximum discharge at Millers Ford, 3½ miles below gage, estimated by engineers of Miami Conservancy District at 59,800 second-feet Apr. 21, 1920 (gage height, 16.0 feet, old datum); minimum, 122 second-feet Sept. 5, 8, 1925.

Maximum stage known, from high-water marks, 29.0 feet Mar. 26, 1913 (discharge estimated by Miami Conservancy District at 250,000 second-feet).

REMARKS.—Records fair. Flood flow automatically regulated at four retarding basins above station. Gage-height record furnished by United States Weather Bureau and Miami Conservancy District. Part of discharge measurements made by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	603	1,060	1,380	6,150	2,110	10,200	2,370	1,000	603	566	389	684
2	530	3,870	1,380	10,800	1,980	6,600	2,510	955	529	529	332	770
3	530	4,530	1,380	17,400	2,240	4,190	2,510	955	566	492	287	684
4	530	3,240	1,380	12,900	2,370	3,550	2,110	860	603	529	268	603
5	530	2,240	1,270	8,310	3,240	3,090	1,850	860	566	456	268	389
6	530	1,730	955	4,900	2,940	2,790	2,370	860	566	529	389	389
7	530	1,490	955	4,190	2,650	2,940	1,850	815	603	456	422	332
8	530	1,380	1,490	21,700	2,370	3,240	1,610	770	603	456	389	389
9	530	1,380	2,110	37,700	2,510	4,530	1,610	815	684	456	360	360
10	530	1,060	2,110	37,700	2,240	3,550	1,490	815	644	456	389	310
11	530	1,610	1,610	35,300	2,110	3,240	1,380	770	603	456	310	310
12	530	2,110	1,610	22,700	1,980	3,090	1,380	860	566	389	332	332
13	530	2,110	1,980	28,800	9,100	2,650	1,380	770	566	389	287	332
14	530	2,940	10,500	36,500	9,640	2,370	1,490	684	603	492	268	389
15	530	4,530	10,200	34,100	5,710	2,110	1,610	770	603	422	287	389
16	530	4,030	7,070	26,000	3,710	2,110	1,730	770	566	389	268	389
17	530	3,240	4,900	19,700	3,090	2,110	1,610	770	860	389	250	456
18	530	3,550	13,700	13,700	2,650	2,110	1,730	603	860	389	268	389
19	530	2,940	17,400	[a] 9,820	2,240	2,240	1,610	908	1,380	389	250	360
20	530	2,650	12,200	5,930	2,510	2,370	1,730	955	1,060	332	287	360
21	644	2,370	7,550	4,190	2,650	2,240	1,380	955	908	332	268	332
22	1,110	1,980	4,710	3,550	2,940	2,110	1,610	860	603	332	287	332
23	1,980	1,730	3,870	[a] 3,240	3,090	1,980	1,490	860	644	332	360	332
24	2,650	1,610	3,240	2,940	4,030	1,490	1,380	815	603	332	389	332
25	2,110	1,380	3,240	2,650	14,500	2,650	1,380	770	603	332	310	332
26	1,850	1,110	2,510	2,370	24,400	3,550	1,160	722	603	332	287	456
27	1,610	1,060	2,370	2,370	29,900	2,940	1,060	684	722	389	268	389
28	1,160	1,610	2,510	2,370	14,100	2,370	1,060	684	566	492	268	389
29	1,000	1,380	2,650	2,240	-------	1,850	1,060	644	529	422	268	389
30	955	1,380	2,790	2,110	-------	3,710	1,060	603	566	389	287	389
31	955	-------	3,240	2,110	-------	2,940	-------	603	-------	389	456	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,650	530	861	0.343	0.40
November	4,530	1,060	2,240	.892	1.00
December	17,400	955	4,330	1.73	1.99
January	37,700	2,110	13,700	5.46	6.29
February	29,900	1,980	5,820	2.32	2.42
March	10,200	1,490	3,130	1.25	1.44
April	2,510	1,060	1,620	.645	.72
May	1,000	603	799	.318	.37
June	1,380	529	666	.265	.30
July	566	332	420	.167	.19
August	456	250	314	.125	.14
September	770	310	410	.163	.18
The year	37,700	250	2,850	1.14	15.44

[a] Interpolated.

MIAMI RIVER NEAR MIAMISBURG, OHIO

LOCATION.—Water-stage recorder in sec. 35, Miami Township, at Cleveland, Cincinnati, Chicago & St. Louis Railway bridge 1½ miles south of Miamisburg and 2½ miles below mouth of Bear Creek. Zero of gage 677.06 feet. above mean sea level.

DRAINAGE AREA.—2,720 square miles.

RECORDS AVAILABLE.—August, 1924, to September, 1930.

EXTREMES.—Maximum discharge during year, 50,800 second-feet Jan. 10 (gage height, 16.16 feet); minimum, 193 second-feet Sept. 21 (gage height, 0.39 foot).

1924–1930: Maximum discharge, 52,600 second-feet Feb. 27, 1929 (gage height, 16.5 feet); minimum, 116 second-feet Sept. 7, 1925 (gage height, 0.39 foot).

REMARKS.—Records good except those for estimated periods of ice effect, Nov. 30 to Dec. 9, Dec. 20–27, Jan. 19 to Feb. 3, and when recorder was not operating, May 25 to July 2, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	618	1,740	1,240	6,640	2,260	10,900	2,970	1,290		680	396	760
2	580	4,000	1,150	13,300	2,210	7,230	2,970	1,240		620	332	868
3	580	4,700	1,090	18,200	2,490	4,700	2,910	1,220	660	590	369	814
4	580	3,290	1,040	15,400	2,610	3,860	2,670	1,180		542	418	597
5	580	2,490	1,000	9,920	3,420	3,420	2,380	1,140		542	427	484
6	544	2,040	1,030	6,000	3,220	3,160	2,160	1,110		535	581	442
7	580	1,820	1,140	5,930	2,910	3,560	2,040	1,090		542	522	418
8	544	1,600	1,550	25,000	2,730	4,700	1,990	1,070	740	535	497	477
9	544	1,490	2,320	38,600	2,550	5,060	1,940	1,050		529	477	490
10	544	1,440	2,320	46,600	2,430	4,020	1,880	1,020		497	407	436
11	544	1,660	1,940	41,300	2,380	3,420	1,820	1,010		509	407	430
12	544	2,550	1,940	28,800	3,040	3,160	1,770	1,000		471	380	436
13	580	2,490	3,080	31,700	9,580	2,970	1,770	960	600	465	369	453
14	657	4,370	9,920	39,600	9,440	2,790	1,770	940		529	380	384
15	657	5,060	10,400	39,000	6,000	2,670	1,770	922		509	385	542
16	618	4,020	7,020	32,700	4,020	2,550	1,820	913		503	342	604
17	618	3,860	6,200	23,400	3,220	2,430	1,820	904		503	342	611
18	618	3,700	16,200	16,400	3,030	2,380	1,820	904	940	484	385	465
19	611	3,160	19,500	12,100	2,850	2,430	1,880	990		459	374	522
20	619	2,910	12,900	8,510	2,790	2,490	1,820	1,080		385	347	442
21	933	2,550	8,510	6,000	2,910	2,380	1,770	1,080		459	369	370
22	1,610	2,320	6,000	4,520	3,030	2,210	1,770	990		424	503	509
23	2,380	2,040	4,700	3,560	2,970	2,100	1,770	940	810	407	477	459
24	2,550	1,880	4,180	2,970	4,280	1,990	1,720	1,050		424	412	459
25	2,320	1,680	3,700	2,730	14,400	2,160	1,660	886		407	390	549
26	1,990	1,550	3,420	2,610	26,100	3,100	1,600			412	358	641
27	1,720	1,490	3,260	2,610	28,800	3,160	1,550			509	353	529
28	1,490	1,600	3,160	2,550	14,900	2,850	1,440	760	870	509	347	434
29	1,390	1,660	3,290	2,550	------	3,220	1,390			471	353	549
30	1,290	1,380	3,560	2,430	------	3,700	1,340			424	337	497
31	1,290	------	4,020	2,320	------	3,160	------		------	418	583	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,550	544	991	0.364	0.42
November	5,060	1,380	2,550	.938	1.05
December	19,500	1,000	4,860	1.79	2.06
January	46,600	2,320	15,900	5.85	6.74
February	28,800	2,210	6,090	2.24	2.33
March	10,900	1,990	3,480	1.28	1.48
April	2,970	1,340	1,930	.710	.79
May	1,290	------	985	.362	.42
June	------	------	770	.283	.32
July	680	385	493	.181	.21
August	583	332	407	.150	.17
September	868	370	522	.192	.21
The year	46,600	------	3,250	1.19	16.20

MIAMI RIVER AT HAMILTON, OHIO

LOCATION.—Water-stage recorder in NE. ¼ sec. 6, T. 1 N., R. 3 E., 1,000 feet below Columbia Bridge at Hamilton. Zero of gage 500.00 feet above mean sea level.

DRAINAGE AREA.—3,640 square miles.

RECORDS AVAILABLE.—April, 1927, to September, 1930. February, 1910, to September, 1917, at site 0.7 mile upstream.

EXTREMES.—Maximum discharge during year, 64,700 second-feet Jan. 10 (gage height, 75.8 feet); minimum, 280 second-feet Aug. 3 (gage height, 57.65 feet).

1927–1930: Maximum discharge, 70,300 second-feet Feb. 26, 1929 (gage height, 76.5 feet); minimum, 193 second-feet Oct. 28, 1928 (gage height, 57.61 feet).

Maximum stage known, 599.2 feet (mean sea level datum) at former gage site Mar. 26, 1913.

REMARKS.—Records good except those estimated, which are fair. Miami & Erie Canal diverts water from this basin above station; diversion not included in tables of discharge. Flow in river at low stages regulated for power at Hamilton; at high stages by five retarding basins above station. Gage-height record and part of discharge measurements furnished by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	624	2,010	1,380	6,670	2,930	11,000	4,000	1,430	736	770	385	628
2	657	4,750	1,560	15,600	2,930	8,680	5,220	1,520	770	736	362	844
3	657	5,220	1,470	19,400	3,060	6,500	4,150	1,270	736	668	320	1,020
4	594	4,300	1,470	15,100	4,180	5,380	3,580	1,270	702	574	320	846
5	534	3,190	1,470	10,300	5,700	4,900	3,190	1,270	702	543	e 320	696
6	624	2,540	1,470	7,010	4,900	4,450	2,930	1,190	792	514	e 486	554
7	624	2,180	1,560	9,460	4,300	5,820	2,800	1,190	840	543	644	497
8	594	1,960	2,420	36,500	3,720	7,900	2,670	1,270	875	543	628	508
9	594	1,760	3,060	46,800	3,450	6,840	2,420	1,190	804	514	606	494
10	594	1,660	3,190	57,800	3,320	5,860	2,300	1,110	804	514	563	555
11	564	1,760	2,930	44,000	3,190	5,060	2,180	1,110	770	514	533	519
12	477	2,180	2,800	30,300	3,320	4,600	2,070	1,110	736	514	471	436
13	564	3,060	4,600	42,700	13,000	4,000	2,070	1,110	736	460	488	480
14	564	6,840	8,860	46,800	11,400	3,720	2,070	1,110	604	486	474	466
15	657	6,840	11,000	40,800	8,080	3,450	2,180	1,110	604	460	480	560
16	624	5,540	8,680	29,200	6,020	3,190	2,180	1,030	668	486	477	633
17	624	5,540	8,080	20,500	4,900	3,190	2,300	950	770	486	458	674
18	624	5,220	20,700	14,500	4,300	3,190	2,180	950	1,270	486	423	629
19	594	4,300	23,300	11,200	3,860	3,190	2,070	1,110	1,190	460	431	452
20	594	3,720	14,800	8,280	3,720	3,320	1,960	1,270	1,190	410	e 428	546
21	830	3,320	9,680	6,180	3,860	3,190	2,070	1,270	1,110	410	e 456	524
22	1,760	3,060	6,840	5,380	4,000	2,930	1,960	1,190	960	410	406	472
23	2,180	2,670	5,700	4,600	4,150	2,800	1,960	1,110	875	410	526	473
24	2,540	2,300	5,060	4,000	5,220	2,670	1,870	1,110	875	410	492	506
25	2,540	2,180	4,300	3,860	11,400	2,930	1,780	1,110	804	410	422	620
26	2,180	1,960	4,000	3,720	28,200	3,580	1,600	990	875	410	442	710
27	1,860	1,860	3,860	3,580	26,700	4,000	1,600	950	990	385	432	682
28	1,560	1,860	4,150	3,580	16,800	3,720	1,600	912	912	434	432	534
29	1,470	1,960	4,150	3,450	-------	3,720	1,520	875	875	434	390	568
30	1,380	1,560	4,300	3,060	-------	4,450	1,520	736	875	434	426	541
31	1,300	-------	5,060	3,060	-------	4,300	-------	770	-------	410	468	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	2,540	477	1,020	May	1,520	736	1,120
November	6,840	1,560	3,240	June	1,270	604	845
December	23,300	1,380	5,870	July	770	385	492
January	57,800	3,060	18,000	August	644	320	458
February	28,200	2,930	7,160	September	1,020	436	589
March	11,000	2,670	4,600				
April	5,220	1,520	2,400	The year	57,800	320	3,810

e Estimated.

LORAMIE CREEK AT LOCKINGTON, OHIO

LOCATION.—Water-stage recorder in NE. ¼ sec. 30, T. 7 N., R. 6 E., just below Lockington Dam, half a mile northwest of Lockington. Gage datum changed on October 1, 1926, from 874.99 to 800.00 feet above mean sea level.

DRAINAGE AREA.—261 square miles.

RECORDS AVAILABLE.—October, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 4,710 second-feet Jan. 14 (gage height, 83.19 feet); minimum, 7.0 second-feet Aug. 25.

1915–1930: Maximum discharge, 9,900 second-feet May 7, 1916 (gage height, 10.4 feet, original datum); minimum, 5 second-feet Nov. 18, 1915, Sept. 1, 9–12, 16–20, 26–27, Oct. 2–19, 1924.

Maximum known stage, 15.6 feet, original datum, Mar. 25, 1913 (discharge estimated by Miami Conservancy District at 25,600 second-feet).

REMARKS.—Records good except those for periods of lost record, Nov. 30 to Dec. 26, Jan. 21 to Feb. 1, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	44		1,380	35	772	364	45	22	18	9.8	22
2	10	424		2,010	35	500	378	42	22	16	9.8	16
3	10	212	17	1,860	45	200	192	38	22	16	9.2	9.5
4	11	92		1,100	79	122	138	39	20	16	9.5	9.2
5	12	59		660	102	109	122	38	20	16	9.5	8.3
6	15	41		580	72	99	124	65	22	15	9.2	8.0
7	11	33		1,700	59	116	93	54	22	15	10	7.8
8	10	25	190	3,880	49	420	66	44	21	15	11	7.8
9	9.2	22		4,010	50	245	56	38	20	14	11	7.8
10	9.2	90		4,150	49	149	53	35	20	15	9.8	8.0
11	8.3	384		2,500	39	151	48	34	20	14	9.8	7.8
12	9.2	178		2,540	124	136	48	34	19	13	9.5	8.3
13	11	124	820	4,150	710	115	52	32	19	14	9.5	8.0
14	11	349		4,430	296	109	103	32	19	14	9.5	8.3
15	16	424		4,150	127	103	96	32	19	14	9.2	8.0
16	9.8	176		2,110	90	104	86	34	20	13	8.6	8.6
17	10	179		995	76	103	173	33	20	13	9.2	8.6
18	9.8	178	1,200	620	67	125	162	34	22	13	9.2	8.3
19	10	333		600	82	170	115	33	22	13	8.9	8.0
20	10	327		465	140	127	80	35	26	13	8.0	8.0
21	13	259		280	151	100	132	32	21	11	8.0	7.8
22	66	100		190	164	83	129	30	19	13	8.0	8.6
23	140	83	230	140	354	78	87	26	19	12	7.4	8.9
24	114	49		110	1,050	87	70	26	160	11	7.4	10
25	72	30		90	2,780	370	61	30	153	12	7.4	11
26	46	26	190	70	4,290	344	53	25	61	12	7.4	12
27	32	29	201	60	1,840	199	53	23	52	13	7.2	12
28	26	32	220	50	995	225	49	23	30	13	7.2	12
29	20	28	228	40	------	306	50	22	24	13	7.2	12
30	18	20	211	37	------	235	47	22	21	11	7.4	11
31	18	------	509	35	------	179	------	22	------	11	10	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	140	8.3	24.9	May	65	22	33.9
November	424	20	145	June	160	19	32.6
December	------	------	447	July	18	11	13.6
January	4,430	35	1,450	August	11	7.2	8.86
February	4,290	35	498	September	22	7.8	9.72
March	772	78	199				
April	378	47	109	The year	4,430	7.2	248

STILLWATER RIVER AT ENGLEWOOD, OHIO

LOCATION.—Water-stage recorder in NW. ¼ sec. 23, T. 5 N., R. 5 E., 1,000 feet below Englewood Dam and half a mile southeast of Englewood. Zero of gage 700.00 feet above mean sea level.

DRAINAGE AREA.—646 square miles.

RECORDS AVAILABLE.—November, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 8,940 second-feet Jan. 15 (gage height, 79.6 feet); minimum, 25 second-feet Aug. 19 (gage height, 70.40 feet).

1925–1930: Maximum discharge, that of Jan. 15, 1930; minimum, 15 second-feet Oct. 14, 1928 (gage height, 70.28 feet).

Peak discharge during flood of March, 1913, was estimated by Miami Conservancy District at 85,400 second-feet.

REMARKS.—Records good. Flow automatically decreased at high stages at Englewood retarding basin. Gage-height record and part of discharge measurements furnished by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	123	155	2,350	311	3,920	537	181	85	72	55	177
2	39	669	127	3,890	310	1,540	507	191	83	76	56	241
3	33	1,080	143	4,940	341	894	496	178	85	70	49	187
4	45	626	120	4,470	474	709	445	178	80	60	52	133
5	44	378	118	2,240	695	621	367	159	77	51	41	88
6	43	262	115	1,030	619	548	340	159	96	53	76	89
7	45	196	130	1,890	486	544	328	153	98	70	86	78
8	42	158	216	5,840	432	945	308	164	102	56	124	62
9	42	149	422	8,040	377	1,160	285	157	103	54	113	63
10	38	145	356	8,580	377	817	252	153	105	49	99	53
11	43	192	284	8,580	361	683	238	173	83	55	56	55
12	45	476	290	8,220	522	583	240	140	88	53	50	60
13	44	357	681	8,220	2,340	484	226	143	100	64	53	61
14	49	516	2,760	8,760	2,350	418	242	140	60	60	67	57
15	37	1,100	2,470	8,940	1,320	374	265	153	71	57	52	64
16	48	896	1,210	8,580	834	358	278	134	107	58	42	87
17	44	607	1,410	7,680	655	338	284	134	116	56	38	72
18	43	514	4,240	6,350	568	353	318	138	121	52	34	61
19	47	421	5,270	4,290	525	352	407	151	221	31	28	48
20	43	334	4,180	1,380	568	349	293	148	198	50	36	62
21	71	274	1,760	792	702	325	273	130	134	41	47	64
22	187	226	890	663	644	293	295	123	127	41	93	43
23	296	200	722	536	646	278	292	116	96	48	131	53
24	355	190	544	457	1,250	278	268	121	92	39	102	52
25	264	160	472	502	4,070	352	234	116	78	43	52	74
26	204	167	409	452	5,960	533	214	105	128	37	69	90
27	166	158	396	398	6,800	474	217	107	132	53	61	78
28	138	178	425	386	5,610	402	205	96	119	55	56	75
29	134	159	555	346	-------	709	191	91	106	67	52	61
30	106	172	604	349	-------	877	192	90	90	69	43	44
31	94	-------	1,040	323	-------	667	-------	79	-------	62	106	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	355	33	92.8	0.144	0.17
November	1,100	123	370	.573	.64
December	5,270	115	1,050	1.63	1.88
January	8,940	323	3,850	5.96	6.87
February	6,800	310	1,430	2.21	2.30
March	3,920	278	683	1.06	1.22
April	537	191	301	.466	.52
May	191	79	139	.215	.25
June	221	60	106	.164	.18
July	76	31	54.9	.085	.10
August	131	28	65.1	.101	.12
September	241	43	81.1	.126	.14
The year	8,940	28	685	1.06	14.39

GREENVILLE CREEK NEAR GREENVILLE, OHIO

LOCATION.—Chain gage on highway bridge on west line of sec. 31, T. 10 N., R. 3 E., 1½ miles east of Greenville.

DRAINAGE AREA.—141 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1930. Prior to April, 1925, at site half a mile downstream.

EXTREMES.—Maximum discharge during year, 3,000 second-feet Jan. 13 (gage height, 8.8 feet); minimum, 7 second-feet Aug. 2 (gage height, 1.42 feet).

1923–1930: Maximum discharge, 4,200 second-feet June 9, 1924; minimum, that of Aug. 2, 1930.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	50	208	810	82	347	156	66	27	36	12	61
2	16	46	119	1,050	93	278	180	59	31	24	7	27
3	17	61	93	1,300	119	218	140	52	30	23	10	16
4	22	190	93	625	172	172	119	47	29	19	12	12
5	17	119	105	322	172	164	105	46	43	22	24	10
6	14	93	322	278	126	148	99	56	56	15	37	10
7	17	119	695	695	119	180	99	50	40	23	41	17
8	14	238	430	2,760	105	322	76	59	36	23	19	19
9	15	133	218	2,520	112	238	71	47	29	19	11	23
10	14	112	730	2,520	105	199	71	46	43	20	10	14
11	14	105	1,640	1,300	82	164	71	47	28	29	14	19
12	17	88	1,580	1,200	164	140	71	52	38	16	16	26
13	19	76	625	3,000	850	119	66	46	24	14	11	26
14	38	66	300	2,520	460	105	71	46	23	20	10	12
15	172	59	218	3,360	258	140	76	43	23	23	11	16
16	93	54	164	890	180	99	82	44	31	17	10	27
17	71	50	133	460	156	93	93	59	76	31	10	19
18	57	49	119	218	148	119	88	47	47	14	12	14
19	49	47	105	258	164	105	82	61	43	11	15	14
20	38	57	112	208	208	93	71	50	31	12	12	10
21	37	59	172	180	180	88	105	46	29	11	30	10
22	38	56	172	164	156	82	93	43	20	19	27	12
23	40	56	164	156	278	82	82	52	34	12	12	16
24	56	41	148	172	555	99	71	49	38	10	12	16
25	82	43	119	133	1,050	126	71	36	27	11	15	19
26	238	41	347	126	2,440	119	59	36	50	8	10	20
27	172	38	278	133	1,200	105	61	47	23	16	9	15
28	119	40	238	119	555	119	61	38	27	22	11	12
29	82	46	218	105	-------	278	59	40	19	33	8	14
30	61	47	199	105	-------	238	61	31	23	10	12	15
31	57	-------	460	88	-------	164	-------	37	-------	15	50	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	238	14	55.3	0.392	0.45
November	238	38	76.0	.539	.60
December	1,640	93	340	2.41	2.78
January	3,000	88	896	6.35	7.32
February	2,440	82	367	2.60	2.71
March	347	82	159	1.13	1.30
April	180	59	87.0	.617	.69
May	66	31	47.7	.338	.39
June	76	19	33.9	.240	.27
July	36	8	18.6	.132	.15
August	50	7	16.1	.114	.13
September	61	10	18.0	.128	.14
The year	3,000	7	176	1.25	16.93

MAD RIVER NEAR URBANA, OHIO

LOCATION.—Staff gage 600 feet below highway bridge on west line of sec. 35, T. 5 E., R. 11 N., and 2½ miles west of Urbana. Prior to May 18, 1930, chain gage on highway bridge was used. Datum of chain gage 0.36 foot above staff gage datum.

DRAINAGE AREA.—157 square miles.

RECORDS AVAILABLE.—September, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 1,900 second-feet Dec. 13 (gage height, 5.2 feet); minimum, 55 second-feet Aug. 26 (gage height, 0.80 foot).

1925–1930: Maximum discharge, 7,740 second-feet Feb. 26, 1929 (gage height, 10.4 feet); minimum, 50 second-feet Oct. 21, 1925 (gage height, 0.90 foot).

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

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	123	129	580	157	189	218	157	125	110	65	79
2	99	129	108	1,100	152	162	204	152	112	121	66	82
3	89	108	99	422	162	157	280	162	117	96	83	75
4	99	99	108	204	189	152	218	152	112	108	82	79
5	84	113	134	173	178	162	178	173	117	121	69	72
6	89	113	129	173	173	157	204	162	143	96	75	66
7	84	118	123	1,480	162	162	218	152	134	89	82	85
8	89	108	134	1,040	157	167	178	157	143	87	79	82
9	99	103	149	1,550	218	162	173	157	148	85	75	66
10	108	123	134	1,100	580	204	178	162	143	83	72	83
11	118	134	129	985	580	218	162	167	121	89	69	85
12	113	139	165	580	985	204	173	157	125	85	72	82
13	89	144	1,900	875	218	162	248	157	134	148	69	79
14	94	134	539	422	539	157	218	162	130	104	82	85
15	99	123	218	218	539	162	204	152	125	85	63	82
16	89	134	173	204	162	157	178	146	148	87	61	79
17	75	134	162	173	167	152	218	162	121	85	82	61
18	84	139	157	162	157	157	204	173	134	104	69	85
19	79	144	146	157	162	146	178	160	119	85	79	82
20	139	129	136	162	157	157	167	143	110	82	82	75
21	149	123	131	157	146	162	178	134	121	85	68	69
22	192	129	162	136	152	167	173	125	132	87	69	79
23	1,410	123	131	146	152	162	162	134	134	83	72	82
24	187	113	136	131	1,760	218	167	143	110	82	61	79
25	155	118	146	120	670	280	157	139	130	75	63	85
26	139	123	136	136	499	131	162	134	148	79	55	66
27	134	134	139	131	218	146	162	143	143	79	61	69
28	129	129	141	157	204	157	218	134	134	85	66	85
29	134	123	141	218	------	152	162	139	125	79	82	82
30	139	108	144	218	------	162	167	125	121	72	85	75
31	134	------	144	173	------	157	------	134	------	69	85	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,410	75	156	0.994	1.15
November	144	99	124	.790	.88
December	1,900	99	210	1.34	1.54
January	1,550	120	435	2.77	3.19
February	1,760	146	343	2.18	2.27
March	280	131	169	1.08	1.25
April	280	157	190	1.21	1.35
May	173	125	150	.955	1.10
June	148	110	129	.822	.92
July	148	69	91.1	.580	.67
August	85	55	72.4	.461	.53
September	85	61	77.8	.496	.55
The year	1,900	55	178	1.13	15.40

MAD RIVER NEAR SPRINGFIELD, OHIO

LOCATION.—Water-stage recorder in NW. ¼ sec. 16, R. 9, T. 4, 150 feet below Rock Run and 3 miles west of Springfield. Zero of gage 881.47 feet above mean sea level.

DRAINAGE AREA.—485 square miles.

RECORDS AVAILABLE.—March, 1924, to September, 1930. January, 1904, to March, 1906; February, 1914, to February, 1924, at site 1¾ miles upstream.

EXTREMES.—Maximum discharge during year, 8,060 second-feet Jan. 8 (gage height, 9.10 feet); minimum, 158 second-feet Aug. 4 (gage height, 1.64 feet).

1914–1930: Maximum discharge, 18,000 second-feet Feb. 26, 1929 (gage height, 14.9 feet); minimum, 110 second-feet July 20, 25, 1925 (gage height, 1.44 feet).

Maximum stage known, 16.9 feet Mar. 25, 1913 (discharge, estimated by Miami Conservancy District, 55,400 second-feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	280	695		1,230	657	1,150		442	326	258	179	314
2	270	2,160		2,160	657	1,070		442	320	253	184	221
3	280	958	a 370	2,120	688	885	a 670	442	308	253	168	210
4	292	720		1,070	785	885		412	297	242	163	194
5	275	626		885	885	850		412	320	242	188	189
6	264	564		818	785	850		442	354	248	264	189
7	258	502		1,440	720	881		442	326	242	231	213
8	258	472		6,750	688	1,310	a 550	442	314	231	194	200
9	258	442	a 520	6,040	688	995		442	303	226	179	194
10	258	442		6,620	688	850		412	308	221	179	184
11	258	626		2,370	657	818		412	303	210	173	184
12	258	533		2,750	913	752		406	297	a 200	179	194
13	253	564		6,620	3,360	688	a 520	406	292	a 216	184	194
14	253	1,150		5,140	1,230			406	286	a 270	184	194
15	258	1,230	a 1,500	3,200	958			406	280	a 270	184	a 260
16	258	785		1,580	785	a 640		400	308	a 253	179	a 270
17	253	1,140		1,230	752			383	395	a 237	184	a 221
18	248	1,150		1,070	720			389	502	a 216	189	a 205
19	248	850	2,390	995	752		a 530	472	395	a 210	184	a 194
20	273	720	a 1,070	958	752			472	320	a 205	179	a 194
21	400	626	a 885	920	752			406	303	a 210	168	a 184
22	1,180	564	a 785	885	752		502	377	292	a 231	194	a 194
23	1,070	533	a 720	818	850	a 620	502	406	292	a 237	200	a 189
24	785	502	a 688	785	1,550		472	412	303	226	184	a 221
25	657	472	657	752	3,720		472	371	297	205	184	a 242
26	533	472	626	720	5,740		442	360	308	194	184	a 205
27	442	a 450	657	a 700	1,920		442	354	303	286	179	a 189
28	412	a 430	688	a 680	1,310	a 740	442	354	275	221	173	a 189
29	412	a 410	688	a 665	-------		442	354	264	200	179	a 184
30	406	a 390	657	657	-------		442	337	258	189	179	a 184
31	406	-------	885	657	-------		-------	331	-------	189	364	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,180	248	386	0.796	0.92
November	2,160	390	706	1.46	1.63
December	2,390	----------	835	1.72	1.98
January	6,750	657	2,040	4.21	4.85
February	5,740	657	1,240	2.56	2.67
March	1,310	----------	774	1.60	1.84
April	----------	442	535	1.10	1.23
May	472	331	405	.835	.96
June	502	258	315	.649	.72
July	286	189	229	.472	.54
August	364	163	191	.394	.45
September	314	184	207	.427	.48
The year	6,750	163	653	1.35	18.27

a Estimated.

MAD RIVER NEAR DAYTON, OHIO

LOCATION.—Water-stage recorder in SW. ¼ sec. 7, R. 8, T. 2, just below Huffman Dam and 6 miles northeast of Dayton. Zero of gage 700.00 feet above mean sea level.

DRAINAGE AREA.—632 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1930. November, 1914, to September, 1921, at site 1 mile upstream.

EXTREMES.—Maximum discharge during year, about 9,400 second-feet Jan. 9 (gage height, 85.6 feet); minimum, 163 second-feet Aug. 29 (gage height, 79.11 feet).

1924–1930: Maximum discharge, 15,900 second-feet Feb. 26, 1929 (gage height, 87.9 feet); minimum, 123 second-feet Sept. 6–12, 1925 (gage height, 79.4 feet).

Maximum stage known, 14.0 feet (former gage datum) Mar. 25, 1913 (discharge, estimated by Miami Conservancy District, 75,700 second-feet).

REMARKS.—Records good. Flow at high stages automatically regulated at Huffman retarding basin. Gage-height record and part of discharge measurements furnished by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	323	644		1,320	708	1,410	772	525	408	266	222	349
2	309	2,560	420	2,280	708	1,320	805	525	380	266	222	243
3	304	1,260		3,140	772	1,100	805	525	375	257	218	226
4	314	912		1,500	912	1,020	675	495	370	252	214	210
5	299	708	408	1,100	1,100	1,020	645	495	359	248	206	206
6	290	585	435	950	950	1,020	615	495	359	252	262	198
7	290	525	465	1,350	840	1,020	615	495	408	252	294	206
8	280	495	840	6,410	772	1,600	585	495	380	243	271	230
9	280	465	675	9,140	740	1,250	555	465	380	239	243	206
10	271	435	585	9,140	740	1,020	555	465	380	230	226	194
11	266	615	585	5,380	708	1,020	555	465	370	226	214	191
12	266	585	615	2,900	766	950	525	465	364	222	206	194
13	266	612	942	7,140	3,460	840	525	435	354	222	206	214
14	266	1,440	1,880	7,660	1,870	805	555	435	338	239	206	198
15	271	1,440	1,180	5,150	1,250	772	555	435	333	257	206	206
16	266	875	912	2,270	1,020	740	555	435	349	252	202	285
17	271	1,380	1,110	1,600	875	708	585	435	465	243	187	271
18	280	1,320	4,060	1,320	840	708	585	465	525	234	194	222
19	275	1,800	3,590	1,180	840	740	585	585	465	230	194	194
20	280	805	1,500	1,100	840	708	555	585	375	222	187	194
21	435	675	1,020	1,020	875	675	555	495	328	218	187	191
22	1,130	615	912	1,020	840	645	585	435	309	218	194	191
23	1,200	555	840	950	875	645	555	495	299	226	202	194
24	912	555	772	950	1,180	615	525	525	299	226	194	191
25	740	525	740	875	3,700	740	525	465	299	222	187	214
26	615	495	708	805	5,420	805	525	435	299	218	184	210
27	525		708	772	4,310	740	525	408	304	248	180	194
28	465	460	772		1,800	708	525	408	299	294	177	187
29	465		840	730	-------	912	525	408	285	262	170	184
30	465		772		-------	950	525	408	280	239	184	180
31	465	-------	912	708	-------	805	-------	408	-------	230	257	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,200	266	422	0.668	0.77
November	2,560	435	824	1.30	1.45
December	4,060	408	983	1.56	1.80
January	9,140	708	2,620	4.15	4.78
February	5,420	708	1,420	2.25	2.34
March	1,600	615	904	1.43	1.65
April	805	525	586	.927	1.03
May	585	408	471	.745	.86
June	525	280	358	.566	.63
July	294	218	240	.380	.44
August	294	170	210	.332	.38
September	349	180	212	.335	.37
The year	9,140	170	769	1.22	16.50

BUCK CREEK AT SPRINGFIELD, OHIO

LOCATION.—Water-stage recorder at Plum Street Bridge in Springfield, Clark County.

DRAINAGE AREA.—137 square miles.

RECORDS AVAILABLE.—October, 1928, to September, 1930. July, 1914, to September, 1921, at present site at datum 1 foot higher than present gage. May, 1924, to September, 1928, at site 300 feet below Fountain Avenue Bridge.

EXTREMES.—Maximum discharge during year, 2,010 second-feet Jan. 13 (gage height, 6.76 feet); minimum 34 second-feet July 12 (gage height, 2.42 feet).

1924–1930: Maximum discharge, 13,000 second-feet Feb. 26, 1929 (gage height, 14.3 feet); minimum, 13 second-feet July 10, 1925 (gage height, 2.30 feet).

REMARKS.—Records excellent.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	338	106	391	151	239	197	100	79	61	55	73
2	84	908	109	640	160	221	235	95	77	60	55	60
3	90	279	105	460	195	185	180	96	75	59	52	57
4	87	188	101	239	228	186	160	93	73	55	53	55
5	83	151	102	193	247	190	149	94	68	57	65	54
6	80	138	102	182	192	182	142	95	81	58	94	53
7	81	126	125	394	181	311	142	93	75	56	76	65
8	79	119	211	1,440	168	438	134	91	73	54	60	56
9	79	114	141	1,080	167	246	128	89	74	52	58	53
10	80	126	128	1,290	168	206	130	87	72	49	55	51
11	79	209	129	386	153	192	124	88	70	44	53	51
12	80	148	150	602	303	179	120	89	69	44	53	51
13	78	371	272	1,560	891	165	122	84	67	58	53	52
14	77	540	309	1,190	293	156	141	90	64	61	51	54
15	76	321	207	554	218	152	127	91	62	61	54	65
16	75	196	168	342	176	154	133	88	87	59	51	75
17	74	594	302	273	171	149	135	85	82	58	50	61
18	74	318	1,040	239	166	163	125	97	98	57	51	56
19	73	227	518	222	180	159	114	122	84	54	49	53
20	89	190	229	208	188	145	110	105	71	52	47	52
21	164	162	176	205	180	142	125	91	68	53	49	52
22	678	146	164	201	172	135	117	89	65	61	53	54
23	428	133	154	183	218	131	112	91	68	58	54	54
24	267	128	140	181	460	144	108	104	73	61	52	54
25	182	119	135	175	977	178	106	88	70	57	51	64
26	138	117	142	162	1,270	157	104	85	74	55	51	55
27	115	136	151	160	390	136	101	84	69	92	51	51
28	106	173	166	166	272	180	105	84	68	68	48	50
29	114	126	160	159	-------	267	105	82	64	55	49	51
30	112	104	156	153	-------	246	102	79	62	55	49	50
31	113	-------	224	152	-------	190	-------	79	-------	54	98	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	678	73	130	0.949	1.09
November	908	104	232	1.69	1.89
December	1,040	101	204	1.49	1.72
January	1,560	152	445	3.25	3.75
February	1,270	151	305	2.23	2.32
March	438	131	191	1.39	1.60
April	235	101	131	.956	1.07
May	122	79	91.2	.666	.77
June	98	62	72.7	.531	.59
July	92	44	57.4	.419	.48
August	98	47	56.1	.409	.47
September	75	50	56.1	.409	.46
The year	1,560	44	163	1.19	16.21

TWIN CREEK NEAR GERMANTOWN, OHIO

LOCATION.—Water-stage recorder in NW. ¼ sec. 11, T. 3 N., R. 4 E., one-fourth mile below Germantown Dam and 1½ miles northwest of Germantown. Zero of gage 700.00 feet above mean sea level.

DRAINAGE AREA.—275 square miles.

RECORDS AVAILABLE.—December, 1926, to September, 1930. April, 1914, to December, 1923, at site 1 mile downstream.

EXTREMES.—Maximum discharge during year, 6,800 second-feet Jan. 10 (gage height, 27.33 feet); minimum, 4.3 second-feet Aug. 13 (gage height, 18.16 feet).

1914–1923, 1926–1930: Maximum discharge, 8,480 second-feet Apr. 21, 1920; minimum, that of Aug. 13, 1930.

Maximum stage known, 18.3 feet (original gage datum) Mar. 25, 1913 (discharge, estimated by Miami Conservancy District, 66,000 second-feet).

REMARKS.—Records good. Discharge estimated Dec. 3–7, because of ice. Flow at high stages automatically regulated at Germantown retarding basin. Gage-height record and part of discharge measurements furnished by Miami Conservancy District.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	42	81	910	431	850	218	54	26	13	7.3	8.9
2	12	159	80	1,960	408	740	283	53	24	13	6.9	12
3	12	290		2,040	436	610	210	51	24	11	6.5	51
4	12	194		910	608	561	164	49	23	11	6.1	21
5	13	130	70	615	822	509	136	47	23	10	5.3	14
6	14	91		472	665	458	126	47	24	10	5.7	11
7	14	71		1,720	552	570	121	45	29	9.8	5.3	10
8	14	59	219	6,150	472	940	110	44	32	9.3	5.3	13
9	14	50	290	6,410	422	768	94	42	29	9.8	5.3	11
10	13	45	241	6,540	388	615	84	40	26	9.3	5.3	9.3
11	13	49	213	3,950	333	537	83	40	25	9.3	5.0	8.5
12	14	56	226	2,730	486	472	80	40	24	8.9	4.5	8.1
13	13	67	541	5,400	2,540	282	78	41	21	8.9	4.5	9.3
14	13	352	1,270	4,840	1,300	157	81	40	20	8.5	4.5	9.3
15	14	566	850	2,580	910	142	80	39	18	8.9	4.5	11
16	14	384	615	1,750	665	138	80	39	21	8.5	4.8	12
17	14	325	865	1,470	576	134	80	37	28	8.1	5.3	22
18	13	325	3,120	1,300	504	140	73	36	38	8.1	5.3	18
19	13	273	2,180	1,180	444	138	70	40	44	7.7	5.0	15
20	14	226	1,030	1,120	422	121	65	49	40	7.3	4.8	13
21	18	162	690	1,030	400	110	80	46	32	6.9	5.0	11
22	50	121	566	940	363	101	83	40	27	6.5	5.3	9.8
23	78	105	404	880	408	94	72	36	24	6.5	7.3	9.3
24	74	91	344	822	750	99	65	36	22	6.5	7.7	8.9
25	54	83	273	768	1,190	172	61	35	20	6.1	7.7	40
26	44	75	241	715	3,000	195	61	32	19	5.7	7.3	47
27	38	72	256	690	1,550	155	58	30	18	5.7	6.9	18
28	34	75	344	640	1,090	165	57	29	17	6.5	6.5	13
29	30	83	384	566	-------	371	57	27	15	7.3	6.1	12
30	31	83	384	504	-------	300	57	27	14	7.3	6.1	10
31	32	-------	640	472	-------	195	-------	27	-------	6.9	6.5	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	78	12	24.2	0.088	0.10
November	566	42	157	.571	.64
December	3,120	70	539	1.96	2.26
January	6,540	472	2,000	7.27	8.38
February	3,000	333	791	2.88	3.00
March	940	94	350	1.27	1.46
April	283	57	98.9	.360	.40
May	54	27	39.9	.145	.17
June	44	14	24.9	.091	.10
July	13	5.7	8.46	.031	.04
August	7.7	4.5	5.79	.021	.02
September	51	8.1	15.5	.056	.06
The year	6,540	4.5	337	1.23	16.63

WEST FORK OF WHITEWATER RIVER NEAR ALPINE, IND.

LOCATION.—Water stage recorder in sec. 23, T. 13 N., R. 12 E., 1¼ miles north of Alpine, Fayette County. Zero of gage 750.25 feet above mean sea level.
DRAINAGE AREA.—528 square miles.
RECORDS AVAILABLE.—October, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 15,200 second-feet Jan. 13 (gage height, 12.89 feet); minimum discharge, 35 second-feet several days in August; minimum stage, 1.81 feet several times in October.
1928–1930: Maximum discharge, 20,900 second-feet Feb. 26, 1929 (gage height, 14.8 feet); minimum occurred in August, 1930.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	275	247	2,020	560	1,010	600	301	136	103	74	83
2	116	820	208	3,900	600	820	685	282	136	100	67	90
3	113	580	195	3,150	640	730	640	264	133	97	69	107
4	128	440	195	1,160	865	685	560	247	124	93	74	71
5	114	354	183	880	865	640	500	230	122	99	76	74
6	114	305	195	740	775	600	460	230	146	105	73	69
7	118	247	234	4,050	685	685	460	230	194	104	72	75
8	110	247	466	12,500	640	960	420	230	124	100	72	85
9	110	220	475	10,900	640	820	400	214	135	99	68	71
10	110	234	388	11,300	600	730	380	208	136	99	67	68
11	111	370	370	2,940	560	640	360	247	130	95	65	65
12	116	405	388	5,070	1,030	600	360	244	126	90	64	164
13	116	354	690	13,200	3,770	560	340	218	120	93	61	198
14	110	370	1,860	9,250	1,460	520	360	200	116	92	64	94
15	109	510	980	5,320	1,060	500	360	212	112	91	[a] 66	118
16	110	440	785	2,020	820	480	340	211	140	88	[a] 68	152
17	107	405	2,330	1,390	775	480	340	200	141	87	70	101
18	108	370	7,090	1,160	730	480	400	214	283	81	68	83
19	108	337	2,390	1,060	685	480	400	225	157	76	65	76
20	122	305	1,230	960	685	460	360	230	129	73	62	71
21	196	290	880	910	685	440	360	211	118	81	62	69
22	405	261	740	865	640	420	380	190	117	79	63	70
23	337	247	660	775	775	400	360	184	111	74	63	69
24	261	234	580	775	1,110	420	320	179	107	73	62	70
25	234	220	545	730	1,390	500	320	145	140	76	59	72
26	208	234	545	685	5,580	500	301	165	113	75	60	132
27	195	202	545	685	2,050	460	282	161	108	118	60	87
28	180	247	620	640	1,210	460	282	158	100	102	58	79
29	175	234	660	640	------	640	282	155	98	89	59	74
30	175	174	660	560	------	685	282	151	100	79	56	75
31	185	------	980	600	------	600	------	144	------	81	69	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	405	107	156	0.295	0.34
November	820	174	331	.627	.70
December	7,090	183	913	1.73	1.99
January	13,200	560	3,250	6.16	7.10
February	5,580	560	1,140	2.16	2.25
March	1,010	400	594	1.12	1.29
April	685	282	396	.750	.84
May	301	144	209	.396	.46
June	283	98	132	.250	.28
July	118	73	90.1	.171	.20
August	76	56	65.7	.124	.14
September	198	65	90.4	.171	.19
The year	13,200	56	614	1.16	15.78

[a] Interpolated.

WHITEWATER RIVER AT BROOKVILLE, IND.

LOCATION.—Water-stage recorder in sec. 32, T. 9 N., R. 2 W., three-fourths mile south of Brookville, Franklin County, and three-eighths mile below junction of East and West Forks. Zero of gage 595.22 feet above mean sea level.

DRAINAGE AREA.—1,180 square miles.

RECORDS AVAILABLE.—June, 1915, to May, 1920; October, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, about 33,800 second-feet Jan. 10 (gage height, estimated, 16.5 feet from chain-gage readings); minimum, 77 second-feet Aug. 31 (gage height, 0.92 foot).

1927–1930: Maximum discharge, 69,200 second-feet Feb. 26, 1929 (gage height, 25.56 feet); minimum, that of Aug. 31, 1930.

REMARKS.—Records good except those for high stages, which are fair. Discharge Jan. 8–10, 13, 14, May 26 to Aug. 14, Sept. 29, 30 from readings of chain gage at same site.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	229	978	364	2,980	1,140	2,480	1,780	644	251	162	124	106
2	223	2,450	394	6,070	1,180	2,130	3,360	602	298	175	108	128
3	220	1,360	372	6,260	1,500	1,810	1,810	554	251	162	101	175
4	223	918	360	2,980	2,940	1,720	1,460	508	251	162	101	166
5	235	625	360	2,300	2,770	1,720	1,260	492	244	150	104	127
6	223	603	380	1,980	1,940	1,540	1,180	492	359	156	116	119
7	217	530	486	6,760	1,720	2,430	1,100	470	368	150	116	110
8	211	475	1,300	27,500	1,500	3,220	1,000	450	315	150	116	170
9	214	440	1,150	24,000	1,420	2,280	930	435	274	150	104	137
10	214	430	910	28,000	1,340	1,900	888	430	259	162	104	118
11	211	603	848	8,290	1,220	1,720	846	435	259	162	104	112
12	220	648	983	9,620	3,940	1,540	804	560	251	134	88	110
13	223	622	2,500	28,500	8,950	1,380	762	492	237	140	98	367
14	220	2,040	3,520	20,000	3,540	1,260	776	450	222	150	98	282
15	214	1,450	2,400	12,400	2,540	1,180	790	430	215	134	98	212
16	211	1,110	1,830	4,880	1,940	1,140	755	435	229	150	98	659
17	205	1,010	4,000	3,470	1,810	1,100	755	415	267	134	101	328
18	208	902	12,500	2,700	1,680	1,180	790	406	465	134	102	222
19	202	795	6,210	2,330	1,580	1,180	804	475	359	129	98	178
20	208	704	2,740	2,180	1,500	1,070	727	514	260	116	94	139
21	296	610	2,130	2,040	1,460	1,000	846	475	244	116	98	110
22	1,290	560	1,830	1,900	1,420	965	874	415	222	124	106	145
23	795	508	1,630	1,630	1,990	909	790	391	215	129	106	124
24	590	502	1,400	1,580	2,540	965	720	364	201	108	101	118
25	486	470	1,320	1,540	4,130	1,260	678	354	201	124	96	129
26	420	455	1,230	1,420	12,100	1,300	644	364	215	108	96	556
27	364	450	1,450	1,420	4,610	1,140	620	315	208	124	98	259
28	344	519	1,830	1,380	2,980	1,140	620	307	188	150	96	208
29	340	479	1,680	1,260	-------	1,580	608	298	175	150	94	222
30	352	340	1,630	1,180	-------	1,630	632	282	175	145	91	181
31	356	-------	2,240	1,100	-------	1,340	-------	259	-------	124	97	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,290	202	321	0.272	0.31
November	2,450	340	790	.669	.75
December	12,500	360	2,000	1.69	1.95
January	28,500	1,100	7,080	6.00	6.92
February	12,100	1,140	2,760	2.34	2.44
March	3,220	909	1,520	1.29	1.49
April	3,360	608	987	.836	.93
May	644	259	436	.369	.43
June	465	175	257	.218	.24
July	175	108	141	.119	.14
August	124	88	102	.086	.10
September	659	106	201	.170	.19
The year	28,500	88	1,380	1.17	15.89

KENTUCKY RIVER BASIN

NORTH FORK OF KENTUCKY RIVER AT JACKSON, KY.

LOCATION.—Chain gage at highway bridge at Jackson, Breathitt County, 3 miles below mouth of Quicksand Creek.
DRAINAGE AREA.—1,100 square miles.
RECORDS AVAILABLE.—June, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 14,100 second-feet Nov. 18 (gage height, 19.0 feet); minimum, 0.3 second-foot Sept. 11 (gage height, 0.60 foot).
1928–1930: Maximum discharge, about 55,000 second-feet Mar. 24, 1929 (gage height, 38.9 feet); minimum, that of Sept. 11, 1930.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	602	532	1,620	980	935	800	280	201	29	20	1.8
2	130	796	515	1,330	935	935	710	266	169	27	17	.9
3	163	9,480	550	1,440	890	890	755	240	141	25	25	a.9
4	141	6,200	670	1,740	1,740	845	935	227	122	24	24	a.9
5	141	2,700	670	1,620	7,140	800	1,280	214	111	22	22	a.8
6	398	1,400	710	1,380	5,640	755	1,130	201	109	19	34	a.8
7	220	878	755	1,230	3,670	980	1,030	188	109	14	32	a.8
8	174	678	1,560	1,080	2,340	1,230	935	176	132	11	15	a.7
9	141	566	1,680	890	1,620	1,990	845	164	126	9.4	9.4	a.7
10	119	496	1,380	800	1,440	2,200	800	240	103	7.0	30	.7
11	98	398	1,180	755	1,280	2,130	755	428	90	6.6	22	.5
12	85	369	980	710	1,130	3,180	755	1,280	76	5.4	24	3.4
13	61	398	890	630	2,130	3,390	710	1,330	64	3.0	35	3.8
14	49	639	755	670	7,700	2,760	630	890	57	13	38	5.8
15	46	1,060	710	630	5,800	2,130	590	1,080	50	29	25	9.4
16	40	1,560	890	630	3,810	1,740	590	755	45	44	23	12
17	33	4,340	980	590	2,690	1,330	550	630	50	29	34	8.6
18	28	14,000	1,800	590	1,990	1,330	498	670	72	23	22	6.6
19	27	6,960	2,270	498	1,560	3,530	445	1,740	105	20	19	a6.2
20	232	3,180	2,760	410	1,330	4,090	428	3,460	143	14	17	a5.9
21	232	1,920	2,060	462	1,180	3,390	410	1,990	141	11	14	a5.6
22	340	1,280	1,620	532	1,030	2,550	375	1,230	109	7.8	13	a5.3
23	1,940	1,030	1,180	590	980	1,990	358	890	83	13	11	a5.0
24	1,060	890	1,080	670	1,180	1,440	340	800	65	9.4	10	4.2
25	602	800	935	710	1,280	1,440	310	550	55	7.0	7.0	3.0
26	430	755	745	800	1,280	1,380	295	410	42	6.2	6.0	2.2
27	340	755	980	980	1,180	1,280	280	340	32	5.0	7.8	3.4
28	298	755	2,270	1,440	1,030	1,130	266	280	31	5.8	6.6	3.4
29	245	670	3,390	1,990	-------	980	295	253	29	5.0	5.8	2.2
30	639	630	3,180	1,230	-------	935	295	240	29	10	4.2	1.8
31	836	-------	2,410	1,130	-------	890	-------	214	-------	25	3.0	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,940	27	303	0.275	0.32
November	14,000	369	2,210	2.01	2.24
December	3,390	515	1,360	1.24	1.43
January	1,990	410	961	.874	1.01
February	7,700	890	2,320	2.11	2.20
March	4,090	755	1,760	1.60	1.84
April	1,280	266	613	.557	.62
May	3,460	164	699	.635	.73
June	201	29	89.7	.082	.09
July	44	3.0	15.5	.014	.02
August	38	3.0	18.5	.017	.02
September	12	.5	3.58	.0033	.004
The year	14,000	.5	852	.775	10.52

a Interpolated.

NORTH FORK OF KENTUCKY RIVER NEAR AIRDALE, KY.

LOCATION.—Water-stage recorder 200 feet above Log Shoal Creek and 1¼ miles above Airdale, Lee County. Zero of gage 634.83 feet above mean sea level.
DRAINAGE AREA.—1,290 square miles.
RECORDS AVAILABLE.—July, 1929, to September, 1930.
EXTREMES.—Maximum discharge during year, about 14,800 second-feet Nov. 18 (gage height, estimated, 23.50 feet); minimum discharge, about 1.0 second-foot Sept. 6–10, 1930; minimum gage height, 0.26 foot Sept. 30, 1930.
REMARKS.—Records fair. Stage affected at times by regulation at Lock 14 on Kentucky River.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		785	605	2,050				340	250	31		
2			500	1,660	a1,220		a940	320	232	27		
3	a168		400	1,660		a1,020		285	198			a2
4		5,500	420		1,980		1,060	250	148	a28		
5			560	a1,970	6,400			250	142		a22	
6	468	1,940	560		7,520	875	a1,310	250	145			
7	212	1,160	740		4,720	965		232	142			
8	198	830	1,210	a1,260	3,040	1,360		215	131	a14	23	a1
9		650	1,780		2,160	2,000		204	148		23	
10	a152	520	1,660		1,720	2,320		208	173		25	
11		460	1,360		1,460	2,440	a940	302	148		25	
12		400	1,110		1,260	2,820		909	131		21	
13	a78	500	965	a810	1,880	3,270	785	1,460	100	a15		a6
14		830	830		5,600	3,210	740	1,060	69			
15		1,610	740		7,520	2,540	695	1,010	59		a36	
16		1,940	830		4,650	2,000	650	965	59			
17	a40	a3,960	1,110		3,100	1,660	605	920	62		22	
18		a12,100	1,940	a640	2,380	1,660	560	1,210	53	a30	19	a9
19	43	a9,650	2,220		1,880	2,980	520	1,830	43		18	
20	46	a4,720	2,600		1,560	4,170	480	2,930	46		17	
21	53	a2,270	2,320		1,360	3,810	460	2,980	75		16	
22	89	1,410	1,720	a610	1,160	2,930	420	1,830	110		16	
23	183	1,060	1,460		1,110	2,220	380	1,210	103	a14	15	a6
24	1,160	920		650	1,210		360	875	92		12	
25	695	785	a1,090	740		a1,640	340	650	65		12	
26	440	695		785	1,390		320	520	59	a7	11	
27	320	650	1,880	1,010			302	440	49		9.8	
28	268	650	2,930				302	360	46	5.0	8.2	a3
29	232	650	3,630				320	302	41	5.8	5.2	
30	1,000	605	3,330	a1,850		a1,170	320	285	31		5	
31	1,210		2,600					250		a20		

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,210		267	0.207	0.24
November	12,100	400	2,460	1.91	2.13
December	3,630	400	1,460	1.13	1.30
January			1,140	.884	1.02
February	7,520	1,110	2,600	2.02	2.10
March	4,170	875	1,920	1.49	1.72
April		302	715	.554	.62
May	2,980	204	802	.622	.72
June	250	31	105	.081	.09
July		5.0	18.4	.014	.02
August			19.6	.015	.02
September			4.5	.0035	.004
The year	12,100		947	.734	9.98

a Estimated.

KENTUCKY RIVER AT LOCK 14, AT HEIDELBERG, KY.

LOCATION.—Staff gage at Lock 14 at Heidelberg, Lee County, one-fourth mile above mouth of Sturgeon Creek.

DRAINAGE AREA.—2,610 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 24,100 second-feet Nov. 18 (gage height, 17.1 feet); minimum, about 5 second-feet Sept. 10–12; minimum stage, 6.3 feet Sept. 30.

1925–1930: Maximum discharge, 67,300 second-feet Mar. 24, 1929 (gage height, 33.6 feet); minimum occurred in 1930, as above.

REMARKS.—Records good except those for ordinary low water, which are fair, and those for extremely low water, which are poor. Regulation due to operation of lock affected low water stages. Discharge June 1 to Aug. 31 based on gage-height record from water-stage recorder at station on North Fork of Kentucky River near Airdale.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	315	1,470	855	4,530	3,020	2,540	2,110	590	463	80	36	
2	315	1,240	745	3,410	2,540	2,430	1,820	540	436	78	25	
3	315	6,040	590	3,410	2,430	2,320	1,820	490	374	70	22	
4	315	15,800	590	3,960	3,960	2,010	2,320	400	278	68	24	
5	315	8,270	800	3,960	18,700	1,820	4,240	400	208	66	26	
6	315	4,240	855	3,410	18,300	1,640	3,960	400	208	55	28	
7	315	2,010	1,030	3,020	11,600	1,730	3,960	358	208	53	32	
8	315	1,390	2,210	2,660	7,620	2,900	3,280	315	201	49	66	
9	315	1,030	3,960	2,660	5,120	5,120	2,660	315	214	46	72	
10	240	970	3,680	2,430	3,960	5,730	2,110	358	278	39	72	
11	240	745	2,660	2,010	3,020	5,730	1,820	490	248	39	72	
12	175	640	2,110	1,640	2,540	7,620	1,640	2,010	208	31	68	
13	175	690	1,730	1,640	4,240	8,270	1,470	2,900	160	32	51	
14	125	1,640	1,470	1,640	17,600	7,620	1,310	1,920	125	32	46	
15	125	4,820	1,310	1,820	17,900	6,040	1,310	1,820	104	26	55	
16	95	5,120	1,560	1,640	17,900	4,530	1,160	1,820	101	17	62	
17	95	9,260	2,010	1,470	11,200	3,410	1,100	1,640	107	13	68	
18	95	22,600	5,120	1,390	7,620	3,680	1,030	2,320	98	10	66	
19	95	20,800	5,730	1,100	5,420	8,600	1,030	5,120	90	15	62	
20	95	9,590	6,660	855	4,240	11,600	910	8,270	88	26	60	
21	95	4,530	5,730	970	3,280	9,590	800	6,980	107	33	57	
22	125	2,660	3,960	1,030	2,780	6,980	800	3,960	160	49	55	
23	125	1,920	2,660	1,030	2,110	5,120	690	2,430	160	53	55	
24	1,470	1,560	2,110	970	2,660	3,960	690	1,640	135	53	51	
25	910	1,310	1,920	1,310	4,820	4,240	590	1,240	130	55	51	
26	640	1,160	1,730	1,160	4,530	5,730	590	910	101	49	47	
27	490	1,030	1,920	1,640	3,960	5,120	490	745	98	43	46	
28	445	1,030	6,660	4,530	3,020	3,960	490	640	88	36	39	
29	358	1,030	9,590	5,730	-------	3,410	540	490	82	30	24	
30	1,820	1,030	8,600	4,530	-------	3,020	490	445	78	32	14	
31	2,430	-------	6,350	3,960	-------	2,540	-------	445	-------	36	10	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,430	95	429	0.161	0.19
November	22,600	640	4,520	1.73	1.93
December	8,600	590	3,130	1.20	1.38
January	4,530	855	2,440	.935	1.08
February	18,700	2,110	7,000	2.68	2.79
March	11,600	1,640	4,810	1.84	2.12
April	4,240	490	1,570	.602	.67
May	8,270	315	1,690	.648	.75
June	463	78	178	.068	.08
July	80	10	42.4	.016	.02
August	72	10	47.1	.018	.02
September	----------	----------	9.0	.0034	.004
The year	22,600	----------	2,120	.812	11.03

KENTUCKY RIVER AT LOCK 10, NEAR WINCHESTER, KY.

LOCATION.—Staff gage at Lock 10, in Madison County, 8 miles southwest of Winchester, Clark County. Zero of gage 558.6 feet and crest of dam 567.6 feet above mean sea level.
DRAINAGE AREA.—3,990 square miles.
RECORDS AVAILABLE.—October, 1909, to September, 1930.
EXTREMES.—Maximum discharge during year, 28,500 second-feet Feb. 6 (gage height, 18.0 feet); minimum, 9 second-feet Sept. 20–24 (gage height, 9.1 feet). 1909–1930: Maximum discharge, about 68,500 second-feet Mar. 29, 1913 (gage height, 35.1 feet); minimum, that of Sept. 20–24, 1930.
REMARKS.—Records good except those for extremely low water, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	630	4,350	1,370	7,440	5,280	3,910	3,480	785	630	87	42	18
2	580	4,810	1,160	5,520	4,350	3,910	3,060	785	482	87	38	20
3	492	6,280	1,020	7,440	6,560	3,910	3,270	730	336	82	27	23
4	473	13,500	900	6,280	11,200	3,480	3,910	730	336	82	27	16
5	363	13,900	960	5,770	24,800	3,270	4,350	630	336	50	27	13
6	492	6,840	1,160	5,280	27,800	3,060	4,810	550	381	54	27	18
7	381	3,910	1,300	4,810	21,400	4,130	5,040	454	302	50	42	16
8	492	2,670	2,150	5,520	11,600	7,140	4,810	511	245	35	42	14
9	363	1,990	3,690	7,440	8,080	7,760	3,910	482	230	46	46	16
10	399	1,600	4,580	6,280	6,020	8,080	3,480	540	294	76	57	14
11	336	1,300	3,910	4,810	5,040	8,400	2,670	630	230	76	50	13
12	311	1,020	3,480	3,910	4,350	9,420	2,490	1,370	294	57	54	23
13	268	1,090	2,670	3,910	6,280	10,100	2,320	3,270	200	50	42	27
14	268	3,270	2,320	4,810	14,300	9,760	2,150	3,690	200	42	57	20
15	230	7,140	1,990	5,520	22,500	8,080	2,150	2,490	200	42	50	20
16	185	7,760	2,150	4,810	17,400	6,280	1,990	2,490	133	54	35	16
17	133	10,800	2,670	3,910	11,600	5,280	1,830	2,150	140	35	38	16
18	126	22,000	6,280	3,270	8,080	4,580	1,600	3,910	126	50	35	13
19	120	27,200	9,080	2,670	6,280	6,560	1,520	6,840	133	42	35	13
20	98	18,300	8,080	2,320	5,040	11,200	1,370	8,400	120	35	31	9
21	92	8,400	8,080	2,150	4,350	11,600	1,230	8,740	159	35	23	9
22	840	4,810	5,770	2,490	3,910	9,420	1,090	6,280	159	27	27	9
23	960	3,480	4,810	2,320	3,480	7,140	1,090	3,910	133	31	27	9
24	840	2,860	3,910	2,150	3,910	5,520	960	2,860	159	31	27	9
25	1,910	2,320	3,060	2,150	4,810	5,040	960	2,150	260	27	25	22
26	1,230	1,990	2,860	2,150	5,520	6,560	840	1,600	230	27	25	23
27	840	1,830	3,270	2,860	5,280	7,440	840	1,300	200	50	23	16
28	680	1,670	6,280	10,100	4,350	6,020	840	1,020	200	42	20	13
29	530	1,600	13,500	10,800	-------	5,280	730	840	120	35	20	13
30	2,150	1,520	12,300	8,740	-------	4,810	730	730	65	42	20	13
31	7,140	-------	9,420	6,280	-------	4,350	-------	630	-------	35	20	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,140	92	773	0.194	0.22
November	27,200	1,020	6,340	1.59	1.77
December	13,500	900	4,330	1.09	1.26
January	10,800	2,150	4,960	1.24	1.43
February	27,800	3,480	9,410	2.36	2.46
March	11,600	3,060	6,500	1.63	1.88
April	5,040	730	2,320	.581	.65
May	8,740	454	2,310	.579	.67
June	630	65	234	.059	.07
July	87	27	48.8	.012	.01
August	57	20	34.2	.0086	.01
September	27	9	15.8	.0040	.004
The year	27,800	9	3,060	.767	10.43

KENTUCKY RIVER AT LOCK 6, AT WARWICK, KY.

LOCATION.—Staff gage at Lock 6, 1 mile northwest of Warwick, Woodford County.

DRAINAGE AREA.—5,140 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 32,300 second-feet Feb. 5 (gage height, 16.8 feet); minimum discharge, about 15 second-feet Aug. 27; minimum stage, 8.5 feet Aug. 26, 27.

1925–1930: Maximum discharge, 75,400 second-feet Dec. 26, 1926 (gage height, 33.7 feet); minimum, that of Aug. 27, 1930.

REMARKS.—Records good except those for ordinary low water, which are fair, and those for extremely low water, which are poor. Discharge June 11 to Sept. 30 estimated from combined records at Locks 2, 4, and 6. Flow regulated slightly by operation of hydroelectric plants on Dix River and at Lock 7 on Kentucky River. Gage-height record furnished by United States Engineer Corps.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,560	7,470	2,390	9,120	6,700	4,630	4,020	1,020	640	105	200	150
2	1,120	8,280	2,260	7,470	5,620	4,020	3,880	1,020	560	50	90	75
3	920	8,280	2,140	7,470	4,630	4,630	3,590	1,020	560	50	115	40
4	1,020	10,900	2,020	7,470	9,120	4,020	3,730	1,020	415	70	70	55
5	820	16,600	2,390	7,080	32,300	4,020	4,020	820	190	50	48	35
6	415	11,800	1,670	6,700	30,800	5,280	4,950	820	295	48	48	70
7	1,020	6,700	2,140	5,970	25,400	7,080	5,280	730	350	42	415	150
8	1,020	4,020	2,140	5,970	17,600	7,470	5,280	730	350	48	220	105
9	1,230	3,310	3,040	17,100	10,900	9,550	4,630	640	240	240	50	55
10	560	5,970	4,630	10,400	7,470	9,120	4,020	640	480	260	90	50
11	1,450	2,020	5,280	8,280	6,330	9,120	3,880	640	390	50	100	70
12	1,120	1,780	4,630	5,970	5,620	10,000	3,730	640	190	50	140	40
13	820	1,780	4,020	5,280	5,970	10,900	3,310	2,020	42	350	210	35
14	560	2,770	3,590	6,700	13,300	10,900	2,900	3,730	42	55	280	35
15	560	8,700	2,770	9,120	20,400	10,400	2,520	3,730	50	45	160	40
16	560	9,550	2,640	7,470	22,600	7,870	2,640	3,040	38	80	125	30
17	920	10,900	3,040	5,970	14,900	6,700	2,640	2,640	38	90	55	30
18	730	19,800	4,630	5,280	10,000	5,970	2,640	3,170	105	180	40	75
19	730	27,000	8,280	3,880	8,280	5,280	2,390	5,970	115	160	38	70
20	295	26,400	10,400	3,450	6,700	8,700	1,450	8,280	160	105	200	30
21	640	14,400	9,120	3,450	5,280	11,800	1,450	9,120	170	105	125	125
22	1,020	7,470	7,470	3,450	4,020	10,900	1,450	7,870	160	140	40	125
23	1,670	5,280	5,970	3,310	4,020	9,120	1,670	5,280	150	180	115	160
24	1,900	3,880	5,280	3,170	4,020	7,080	1,450	3,730	100	240	190	325
25	2,020	3,310	4,020	2,900	4,630	5,970	1,340	2,770	150	210	350	225
26	2,640	3,170	3,730	2,900	5,280	6,330	1,020	2,520	160	125	50	180
27	2,640	3,040	3,880	3,170	6,330	7,470	1,120	1,450	115	45	15	50
28	1,780	2,770	6,700	10,400	5,970	7,470	1,020	1,450	220	48	30	100
29	1,230	2,390	14,900	13,800	-------	6,330	1,020	1,450	210	220	125	75
30	1,560	2,640	14,900	11,800	-------	5,280	1,020	820	160	75	300	75
31	5,280	-------	11,800	8,700	-------	4,630	-------	1,020	-------	55	325	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	5,280	295	1,280	May	9,120	640	2,570
November	27,000	1,780	8,080	June	640	38	228
December	14,900	1,670	5,220	July	350	42	115
January	17,100	2,900	6,880	August	415	15	141
February	32,300	4,020	10,900	September	325	30	89.3
March	11,800	4,020	7,360				
April	5,280	1,020	2,800	The year	32,300	15	3,760

KENTUCKY RIVER AT LOCK 4, AT FRANKFORT, KY.

LOCATION.—Staff gage at Lock 4 at Frankfort, Franklin County, one-fourth mile below Benson Creek.

DRAINAGE AREA.—5,480 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 38,400 second-feet Feb. 5 (gage height, 14.7 feet); minimum discharge, about 15 second-feet Aug. 28–30, Sept. 10, 11; minimum gage height, 5.1 feet Aug. 29.

1925–1930: Maximum discharge, 72,700 second-feet Dec. 26, 1926 (gage height, 34.9 feet); minimum gage height, 4.6 feet Jan. 29, 1927 (discharge not determined).

REMARKS.—Records good except those for ordinary low water, which are fair, and for extremely low water, which are poor. Discharge June 11 to Sept. 30 estimated from combined records at Locks 2, 4, and 6. Flow regulated slightly by operation of hydroelectric plants on Dix River and at Lock 7 on Kentucky River. Gage-height record furnished by United States Engineer Corps.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,320	8,220	2,880	10,100	7,340	5,720	4,980	955	740	150	130	95
2	1,070	11,100	2,060	9,140	6,500	4,980	4,440	955	640	120	65	70
3	955	10,600	2,540	9,140	5,720	4,980	3,910	955	550	75	110	35
4	1,320	10,100	2,060	9,140	13,200	4,980	4,260	955	300	70	75	105
5	1,070	16,100	2,060	7,780	35,700	4,440	4,620	740	235	60	30	85
6	955	13,200	2,060	7,340	33,100	4,260	5,340	740	235	35	95	85
7	640	7,340	2,540	6,500	28,500	4,980	5,340	640	460	30	170	150
8	1,070	4,980	3,390	10,100	20,200	8,220	5,340	460	235	75	600	120
9	1,070	3,740	3,220	17,900	12,100	10,100	4,980	460	170	225	300	30
10	1,070	3,050	4,980	12,100	9,140	9,620	4,440	460	380	65	200	15
11	1,460	2,210	5,720	9,140	7,340	9,140	3,910	840	330	55	150	15
12	1,200	2,540	5,720	7,340	5,720	10,100	3,740	640	260	35	150	60
13	840	3,220	4,620	8,220	7,780	10,600	3,050	1,600	235	130	125	55
14	300	6,500	4,080	10,100	11,100	10,600	2,880	3,560	220	95	160	95
15	1,070	9,140	3,390	9,620	18,500	10,100	2,880	4,080	140	30	260	85
16	840	10,100	3,220	9,140	22,400	8,680	2,710	3,050	125	30	200	85
17	840	11,100	3,910	7,340	16,700	7,340	2,880	2,880	105	55	175	55
18	840	17,900	11,100	5,720	11,600	6,100	2,380	3,390	50	95	150	35
19	840	24,500	10,100	4,980	9,140	5,720	2,060	5,720	40	150	100	30
20	550	25,500	10,100	4,080	7,340	8,220	1,750	7,780	30	220	200	25
21	460	16,700	9,140	3,910	5,720	11,600	1,750	8,680	40	110	120	50
22	1,600	8,680	8,220	3,560	5,720	11,100	1,600	8,220	75	110	160	85
23	3,390	6,100	6,920	3,220	4,980	9,620	1,460	6,500	100	200	110	95
24	1,900	4,620	5,720	3,220	4,620	7,340	1,460	4,260	125	340	90	200
25	1,750	3,740	4,980	3,220	4,980	5,720	1,200	3,390	75	500	50	320
26	2,710	3,390	4,080	3,220	9,140	5,720	1,200	2,380	100	235	500	300
27	2,380	3,050	4,080	3,220	6,920	7,340	1,070	1,900	140	75	50	150
28	840	3,050	7,780	9,620	6,100	7,340	955	1,320	200	60	15	85
29	1,200	2,380	14,300	13,800	------	6,500	1,070	1,200	210	60	15	75
30	2,540	2,880	15,500	12,100	------	5,720	955	955	250	110	15	50
31	5,340	------	13,200	10,100	------	5,340	------	840	------	150	45	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	5,340	300	1,400	May	8,680	460	2,600
November	25,500	2,210	8,520	June	740	30	226
December	15,500	2,060	5,920	July	500	30	121
January	17,900	3,220	7,870	August	600	15	149
February	35,700	4,620	12,000	September	320	15	91.3
March	11,600	4,260	7,490				
April	5,340	955	2,950	The year	35,700	15	4,060

KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY.

LOCATION.—Staff gage at Lock 2 at Lockport, Henry County, just below mouth of Sixmile Creek.

DRAINAGE AREA.—6,310 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 47,300 second-feet Feb. 6 (gage height, 20.8 feet); minimum, about 20 second-feet Aug. 29–31 (gage height, 6.9 feet).

1925–1930: Maximum discharge, 84,400 second-feet Jan. 23, 1927 (gage height, 41.7 feet); minimum, that of Aug. 29–31, 1930.

REMARKS.—Records good except those for very high and very low stages, which are poor. Discharge estimated June 11 to Sept. 30 because of regulation on Dix River and at various locks, from combined records at Locks 2, 4, and 6.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,560	10,200	2,860	10,600	8,940	7,380	4,870	1,170	980	235	90	50
2	1,360	14,000	2,280	12,300	7,760	6,270	6,630	1,170	800	155	130	60
3	1,300	14,500	2,620	11,000	6,270	5,910	4,540	1,170	681	120	130	70
4	1,360	12,700	2,390	10,600	14,000	5,910	4,540	1,040	630	75	75	155
5	1,360	16,800	2,170	9,340	41,300	5,210	4,540	1,170	365	70	65	130
6	1,300	15,900	2,390	8,150	44,700	4,870	5,560	980	320	55	45	75
7	630	9,750	2,620	8,540	36,800	7,380	5,910	926	320	35	50	80
8	1,300	6,270	4,230	16,300	26,300	10,600	6,270	800	320	30	550	100
9	1,360	4,540	3,500	38,400	15,900	12,300	5,560	800	320	60	250	130
10	1,300	3,500	5,210	28,500	11,400	11,400	5,210	800	320	150	150	60
11	1,460	2,860	6,270	14,000	8,540	11,000	4,230	800	395	125	175	50
12	1,460	2,740	5,910	10,600	7,380	11,400	3,930	980	440	55	130	60
13	1,110	7,380	5,210	14,500	11,000	11,800	3,500	1,460	320	40	200	40
14	582	16,300	4,540	19,200	12,300	12,300	2,980	3,110	225	125	225	25
15	926	12,300	4,230	17,800	16,800	11,400	2,860	4,230	155	75	250	70
16	1,170	13,100	3,930	13,600	23,500	9,750	2,860	3,240	155	40	175	120
17	1,170	14,000	4,870	10,200	20,100	8,150	2,740	2,740	200	45	130	120
18	1,170	18,200	16,800	7,760	14,000	7,000	2,500	2,860	175	80	130	60
19	980	25,400	13,600	6,270	10,600	6,270	2,280	4,870	120	130	110	30
20	926	29,800	13,600	5,210	8,540	7,760	1,960	7,760	110	155	70	45
21	1,170	22,000	11,400	4,870	7,000	11,800	1,960	9,340	110	150	150	30
22	3,640	11,800	10,200	4,230	5,910	12,700	1,760	8,940	85	135	175	45
23	2,060	7,760	7,000	3,640	5,560	11,400	1,760	7,000	105	135	110	75
24	2,170	5,560	6,630	3,640	5,210	8,540	1,760	4,870	120	175	65	100
25	2,060	4,540	5,560	3,500	5,210	7,000	1,560	3,370	130	320	65	225
26	2,500	3,930	4,540	3,370	21,100	6,630	1,460	2,740	120	365	425	340
27	2,500	3,500	4,870	3,370	10,200	7,760	1,360	2,060	110	210	400	200
28	1,560	3,240	7,760	8,940	8,540	8,540	1,170	1,560	100	130	100	75
29	1,760	2,860	14,900	15,400	-------	7,380	1,230	1,360	180	75	20	70
30	3,640	2,860	16,800	14,000	-------	6,630	1,360	1,110	215	80	20	60
31	5,210	-------	15,400	11,400	-------	5,560	-------	980	-------	90	20	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	5,210	582	1,680	May	9,340	800	2,760
November	29,800	2,740	10,600	June	980	85	288
December	16,800	2,170	6,910	July	365	30	120
January	38,400	3,370	11,300	August	550	20	151
February	44,700	5,210	14,800	September	340	25	91.7
March	12,700	4,870	8,650				
April	6,630	1,170	3,300	The year	44,700	20	4,990

TROUBLESOME CREEK NEAR CLAYHOLE, KY.

LOCATION.—Staff gage 1½ miles southeast of Clayhole, Breathitt County, and 50 feet above Millers Branch.
DRAINAGE AREA.—191 square miles.
RECORDS AVAILABLE.—August, 1929, to September, 1930.
EXTREMES.—Maximum discharge during period of record, 3,330 second-feet Nov. 17, 1929 (gage height, 6.55 feet); no flow Sept. 10, 1930.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	117	54	129	126	111	117	45	18	7.2	3.6	0.4
2	12	340	59	113	152	154	129	42	12	7.2	2.0	.3
3	18	1,810	65	229	143	126	129	39	10	6.3	1.4	.3
4	20	575	76	302	460	115	124	35	9.0	4.2	.4	.3
5	17	284	76	265	1,590	111	106	35	9.0	3.6	4.8	.3
6	14	183	76	152	550	109	93	32	8.7	3.6	9.6	.2
7	12	111	143	138	195	165	86	32	8.4	3.0	6.6	.2
8	10	102	350	189	126	202	138	30	8.1	3.0	5.4	.2
9	9.5	76	234	183	96	380	129	28	8.1	3.0	4.5	.2
10	8.5	64	202	177	247	400	129	100	8.1	3.0	16	0
11	7.0	55	168	113	222	420	120	104	7.8	1.2	10	.1
12	7.0	59	138	100	180	575	111	202	7.8	.3	7.2	.3
13	5.4	86	138	100	600	247	93	222	7.8	.3	6.6	.4
14	5.4	229	106	111	1,450	215	86	222	7.8	.3	8.4	1.7
15	5.4	380	104	120	700	209	86	171	8.1	.3	9.6	.4
16	5.0	380	126	96	460	183	79	165	8.1	.3	7.2	.4
17	3.8	1,890	149	96	380	165	75	146	13	.3	5.7	.3
18	3.0	2,130	183	66	302	247	74	102	17	.3	4.2	.2
19	2.8	650	229	66	247	1,050	60	575	12	.3	3.6	.2
20	3.8	360	86	75	219	750	59	302	10	.3	3.0	.1
21	3.8	226	46	96	183	505	58	96	10	.3	2.5	.1
22	217	165	52	94	157	420	44	91	9.6	.3	3.6	.2
23	195	126	49	93	149	360	43	79	9.0	.3	2.2	.4
24	105	124	50	89	115	284	42	96	9.0	.3	1.7	.4
25	70	100	50	82	104	265	39	74	8.4	.3	1.7	.3
26	38	94	51	96	104	247	35	62	8.1	.3	1.4	2.0
27	31	93	107	111	111	202	29	54	7.8	.3	1.4	2.5
28	22	96	440	168	106	189	27	52	7.5	.3	1.4	2.5
29	30	89	650	380	-------	177	50	50	7.2	10	1.2	2.5
30	103	54	528	180	-------	166	44	46	7.2	16	.9	1.7
31	173	-------	222	143	-------	149	-------	40	-------	7.5	.7	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	217	2.8	37.7	0.197	0.23
November	2,130	54	368	1.93	2.15
December	650	46	164	.859	.99
January	380	66	140	.733	.85
February	1,590	96	338	1.77	1.84
March	1,050	109	287	1.50	1.73
April	138	27	81.1	425	.47
May	575	28	109	.571	.66
June	18	7.2	9.42	.049	.05
July	16	.3	2.71	.014	.02
August	16	.4	4.47	.023	.03
September	2.5	0	.64	.0034	.004
The year	2,130	0	127	.665	9.02

QUICKSAND CREEK NEAR JACKSON, KY.

LOCATION.—Staff gage 5 miles northeast of Jackson, Breathitt County, and 6½ miles above mouth of creek.

DRAINAGE AREA.—152 square miles.

RECORDS AVAILABLE.—August, 1929, to September, 1930.

EXTREMES.—Maximum stage during period of record, 8.92 feet Nov. 18, 1919 (discharge not determined); no flow Sept. 10, 23–30, 1930.

REMARKS.—Records good except those between 300 and 500 second-feet, which are fair, and those over 500 second-feet, which are poor. Periods of ice effect Dec. 1–8, Jan. 19–28.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.4	132	84	223	214	110	110	46	18	3.8	3.8	0.8
2	11	104	84	189	206	125	110	35	14	3.0	2.2	.5
3	18	655	84	276	180	118	140	32	12	2.8	1.4	.4
4	21	470	84	223	331	110	179	31	10	2.0	.8	.3
5	19	223	84	206	1,580	110	148	26	9.5	1.6	.5	.3
6	15	140	98	189	605	110	155	24	11	1.4	.4	.2
7	12	104	148	172	430	140	155	23	16	1.0	.3	.2
8	11	81	206	148	294	258	140	22	17	.6	.3	.1
9	9.4	64	180	140	223	312	118	20	13	.5	.3	.1
10	8.2	53	140	125	214	294	103	22	9.5	.5	3.2	0
11	7.0	49	125	106	172	350	96	22	7.9	.4	3.5	.1
12	6.4	47	110	94	156	390	90	27	6.7	.3	5.8	.3
13	5.8	47	95	92	430	350	81	27	6.1	.5	6.7	.3
14	5.2	110	87	96	830	312	77	30	5.5	2.5	6.1	.3
15	4.6	164	82	98	510	258	73	39	6.1	2.2	5.5	.3
16	4.0	180	118	89	331	214	68	32	5.5	1.6	4.0	.3
17	4.0	1,080	132	79	294	198	62	26	5.5	2.8	5.5	.3
18	3.5	1,680	164	76	240	223	57	73	16	3.8	5.8	.3
19	2.9	530	240	77	198	740	55	219	28	2.5	3.8	.2
20	2.9	276	258	81	172	555	49	219	16	1.6	2.5	.2
21	4.0	189	172	84	148	410	45	155	10	1.2	1.8	.1
22	60	140	206	100	132	312	43	103	7.5	.8	2.2	.1
23	107	125	140	110	140	240	41	71	5.5	.6	1.8	0
24	58	104	156	125	156	214	39	55	4.9	.5	1.8	0
25	41	89	148	132	140	223	35	44	4.6	.3	2.8	0
26	33	80	189	125	140	258	33	34	3.8	.3	2.0	0
27	26	81	240	148	132	223	31	27	3.2	.5	4.9	0
28	22	84	580	370	118	198	30	24	3.8	.5	3.5	0
29	22	85	605	370	-------	189	37	22	3.8	.3	2.8	0
30	312	84	390	331	-------	172	53	21	2.8	.3	1.8	0
31	276	-------	294	276	-------	148	-------	20	-------	1.4	1.4	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	312	2.9	36.8	0.242	0.28
November	1,680	47	242	1.59	1.77
December	605	82	185	1.22	1.41
January	370	76	160	1.05	1.21
February	1,580	118	311	2.05	2.14
March	740	110	254	1.67	1.92
April	179	30	81.8	.537	.60
May	219	20	50.7	.334	.39
June	28	2.8	9.4	.062	.07
July	3.8	.3	1.4	.0092	.01
August	6.7	.3	2.9	.019	.02
September	.8	0	.2	.0013	.001
The year	1,680	0	110	.724	9.82

SOUTH FORK OF KENTUCKY RIVER AT BOONEVILLE, KY.

LOCATION.—Water-stage recorder installed Nov. 28, 1929, at Booneville, Owsley County, 400 feet below Buck Creek. Oct. 7 to Nov. 17, 1929, temporary staff gage at same site and datum was used.

DRAINAGE AREA.—708 square miles.

RECORDS AVAILABLE.—October, 1929, to September, 1930. March, 1925, to September, 1929, three-fourths mile upstream.

EXTREMES.—Maximum discharge during year, 10,000 second-feet Nov. 18 (gage height, 16.42 feet); minimum, 0.1 second-foot Sept. 30 (gage height, 0.61 foot).

1925–1930: Maximum discharge, 57,200 second-feet Mar. 23, 1929 (gage height, 39.3 feet, present datum); minimum, that of Sept. 30, 1930.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a 62	241	224	1,000	938	870	668	111	109	16	13	0.7
2	a 67	a 224	206	825	780	870	578	102	98	15	12	1.3
3	a 83	a 2,450	191	1,000	690	758	578	95	79	14	11	1.7
4	a 68	a 2,520	214	1,120	2,000	645	1,320	88	68	12	8.6	1.9
5	a 60	a 1,790	230	1,000	7,160	578	1,550	96	57	10	7.4	1.7
6	a 59	a 1,250	247	892	4,010	535	1,300	105	51	11	6.4	1.4
7	61	a 780	532	758	2,210	578	1,120	88	53	17	7.0	1.0
8	52	323	1,250	668	1,500	1,000	915	78	47	19	11	.7
9	45	218	1,350	758	1,100	1,500	712	72	55	15	6.7	.6
10	42	a 194	1,000	758	938	1,550	578	106	54	12	4.9	.6
11	37	202	780	645	802	1,610	495	109	54	10	4.0	.5
12	33	185	600	555	645	2,150	458	230	46	8.2	3.2	.5
13	a 31	a 268	475	515	1,560	2,090	405	292	38	7.0	2.4	.5
14	29	157	405	578	7,160	1,670	375	263	32	6.4	2.4	.5
15	25	147	378	690	3,930	1,280	351	345	25	6.4	3.4	.5
16	17	a 280	422	735	2,270	1,030	326	340	22	6.1	3.8	.6
17	15	5,130	832	622	1,550	848	297	250	20	11	4.3	.6
18	12	8,600	1,910	535	1,250	870	273	471	17	31	4.0	.6
19	8.6	3,770	2,090	440	1,000	2,640	252	2,390	16	29	4.0	.5
20	a 10	1,100	1,790	357	848	3,360	222	2,150	14	23	3.4	.5
21	a 10	555	1,200	360	712	2,210	204	1,250	15	16	3.0	.4
22	a 17	475	892	440	600	1,550	178	a 25	17	12	2.4	.4
23	28	390	758	475	600	1,180	167	555	22	10	2.0	.4
24	25	a 388	600	515	1,260	960	155	405	25	9.0	1.9	.4
25	24	387	515	578	2,090	1,200	142	300	23	6.7	1.7	.4
26	25	357	402	578	1,670	2,030	132	230	21	5.8	1.6	.4
27	a 29	313	535	668	1,350	1,790	122	174	23	21	1.4	.4
28	37	287	1,660	1,550	1,030	1,400	118	140	22	29	1.3	.3
29	56	292	2,800	1,850	-------	1,200	118	122	17	20	1.2	.2
30	a 600	270	2,030	1,550	-------	1,030	120	109	17	22	1.0	.2
31	405	-------	1,400	1,250	-------	848	-------	108	-------	17	.9	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	600	8.6	66.9	0.094	0.11
November	8,600	147	1,120	1.58	1.76
December	2,800	191	901	1.27	1.46
January	1,850	357	783	1.11	1.28
February	7,160	600	1,840	2.60	2.71
March	3,360	535	1,350	1.91	2.20
April	1,550	118	474	.669	.75
May	2,390	72	387	.547	.63
June	109	14	38.6	.055	.06
July	31	5.8	14.4	.020	.02
August	13	.9	4.56	.0064	.007
September	1.9	.2	.68	.00096	.001
The year	8,600	.2	573	.809	10.99

[a] Estimated.

EAGLE CREEK AT GLENCOE, KY.

LOCATION.—Chain gage at highway bridge half a mile south of Glencoe, Gallatin County.

DRAINAGE AREA.—445 square miles.

RECORDS AVAILABLE.—April, 1915, to September, 1920; May, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 13,700 second-feet Feb 26 (gage height, 15.0 feet); no flow July 15 to Sept. 30.

1928–1930: Maximum discharge, 17,400 second-feet May 15, 1929 (gage height, 17.3 feet); no flow July 15 to Sept. 30, 1930.

Flood of 1913 reached stage of approximately 23 feet.

REMARKS.—Records good. Periods of ice effect Nov. 30 to Dec. 7, Jan. 19 to Feb. 3.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
1	9.5	1,150	48	350	140	335	120	46	7.0	0.3
2	13	2,550	46	7,280	140	293	2,750	46	5.5	.3
3	34	1,840	35	3,780	206	242	1,090	48	5.1	.4
4	39	740	36	620	1,840	218	380	46	4.5	.4
5	30	335	39	350	7,020	218	335	45	3.9	.4
6	22	195	42	280	700	206	320	44	3.2	.5
7	19	150	102	280	510	267	306	42	2.4	.4
8	17	110	880	5,700	293	3,780	161	39	1.9	.4
9	13	102	410	10,200	230	1,090	150	26	1.6	.3
10	12	79	254	2,650	230	475	129	19	1.3	.3
11	11	79	195	700	218	306	120	19	1.0	.2
12	9.8	140	150	475	242	335	120	20	.8	.2
13	8.6	1,540	120	4,960	1,840	280	120	21	.8	.1
14	7.5	8,920	184	4,000	1,210	254	110	21	.6	.1
15	6.2	5,720	184	3,150	350	195	110	20	.6	0
16	4.9	785	161	740	242	172	110	21	.6	0
17	4.5	545	1,210	350	230	161	102	21	.7	0
18	3.0	830	5,200	306	218	172	102	21	.6	0
19	2.8	395	7,540	254	195	254	93	20	.5	0
20	7.2	280	1,090	230	184	218	86	18	.5	0
21	20	218	320	140	161	195	67	17	.5	0
22	4,240	172	242	120	150	140	66	16	.5	0
23	1,330	150	320	120	172	120	65	14	.4	0
24	660	129	267	110	129	110	63	17	.4	0
25	320	120	184	110	172	110	61	29	.3	0
26	172	110	184	102	12,000	120	58	26	.4	0
27	110	102	206	102	2,750	140	55	21	.4	0
28	79	102	510	102	395	129	52	16	.3	0
29	73	93	660	102	-------	161	51	12	.3	0
30	410	67	335	120	-------	150	49	9.8	.3	0
31	2,360	-------	242	129	-------	129	-------	8.3	-------	0

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,240	2.8	324	0.728	0.84
November	8,920	67	925	2.08	2.32
December	7,540	35	690	1.55	1.79
January	10,200	102	1,550	3.48	4.01
February	12,000	129	1,150	2.58	2.69
March	3,780	110	354	.795	.92
April	2,750	49	247	.555	.62
May	48	8.3	25.4	.057	.07
June	7.0	.3	1.56	.0035	.004
July	.5	0	.14	.0003	.0003
The year	12,000	0	434	.975	13.26

NOTE.—No flow in months omitted.

GREEN RIVER BASIN

GREEN RIVER AT MUNFORDVILLE, KY.

LOCATION.—Chain gage at highway bridge in Munfordville, Hart County.
DRAINAGE AREA.—1,790 square miles.
RECORDS AVAILABLE.—February, 1915, to December, 1922; October, 1927, to September, 1930.
EXTREMES.—Maximum discharge during year, 16,300 second-feet Feb. 6 (gage height, 21.8 feet); minimum not determined.
1915–1922, 1927–1930: Maximum discharge, 42,400 second-feet Dec. 18, 1915 (gage height, 44.5 feet); minimum, 39 second-feet Sept. 2, 1921 (gage height, 2.2 feet).
REMARKS.—Records fair except those estimated and those for low stages, which are poor. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		3,980	510	3,530	3,980	2,400	1,140	335	480	335		
2		5,260	450	2,780	3,230	2,190	1,070	390	450	540		
3		7,380	450	2,930	2,630	2,050	1,000	450	390	420		
4		8,320	450	5,330	4,130	2,400	2,050	390	280			
5		5,030	510	5,400	13,300	2,190	2,330	390	335			
	150											
6		2,630	570	3,080	16,100	2,120	1,910	335	280			100
7		810	570	2,480	14,300	2,050	1,700	280	235			
8		390	1,630	3,160	9,540	2,330	1,560	280	235		100	
9		235	1,910	11,100	5,960	2,700	1,490	235	235	175		
10		450	1,700	13,900	3,380	2,400	1,350	280				
11		570	1,630	12,200	2,630	2,050	1,210	390				
12		570	1,490	6,860	2,330	3,000	940	335	200			
13		690	1,210	4,880	2,930	2,860	810	510				157
14		810	1,070	5,720	6,040	2,480	750	1,210				480
15		690	1,070	7,300	7,300	2,190	810	1,350				940
	100											
16		5,640	1,210	9,540	4,430	1,980	690	1,770		258		875
17		6,280	2,330	7,720	3,980	1,630	690	1,980		235		660
18		5,480	2,480	4,730	3,230	1,490	630	5,640	150			193
19		4,580	3,760	3,230	2,630	1,770	630	9,160				
20		4,200	3,230	2,480	2,330	2,050	570	11,000				
											125	
21	235	3,600	3,000	1,910	1,910	2,330	510	7,640	235			
22	1,000	3,230	2,780	1,910	1,770	2,050	450	3,230	235			
23	1,700	1,840	2,480	1,770	2,050	1,490	450	1,770	157			
24	1,000	1,560	2,330	1,770	2,330	1,350	420	1,490	214	125		125
25	570	1,210	1,840	1,770	3,230	1,490	390	1,210	214			
26	335	940	1,490	1,700	3,230	2,190	390	1,140	235			
27	280	630	1,350	2,120	2,930	2,330	335	940	157			
28	235	570	2,480	6,700	2,630	2,050	335	660	193		100	
29	235	570	5,800	9,720	-------	1,630	335	630	127			
30	235	570	8,140	8,480	-------	1,350	335	750	157			
31	2,700	-------	6,120	5,260	-------	1,280	-------	660	-------			-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,700	-------	356	0.199	0.23
November	8,320	235	2,620	1.46	1.63
December	8,140	450	2,130	1.19	1.37
January	13,900	1,700	5,210	2.91	3.36
February	16,100	1,770	4,800	2.68	2.79
March	3,000	1,280	2,060	1.15	1.33
April	2,330	335	909	.508	.57
May	11,000	235	1,830	1.02	1.18
June	480	-------	226	.126	.14
July	540	-------	182	.102	.12
August	-------	-------	108	.060	.07
September	940	-------	200	.112	.12
The year	16,100	-------	1,700	.950	12.91

GREEN RIVER AT LOCK 6, AT BROWNSVILLE, KY.

LOCATION.—Staff gage above dam at Lock 6, 1 mile northeast of Brownsville, Edmonson County. Zero of gage 413.16 feet above mean sea level.

DRAINAGE AREA.—2,740 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1930.

EXTREMES.—Maximum discharge during year, 23,200 second-feet Feb. 6 (gage height, 17.6 feet); minimum, 165 second-feet on several days (gage height, 8.4 feet).

1924–1930: Maximum discharge, 62,800 second-feet Jan. 24, 1927 (gage height, 34.3 feet); minimum occurred in 1930.

REMARKS.—Records good for medium stages, fair for high and low stages.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	290	3,160	1,380	6,160	6,640	3,940	1,920	900	1,030	460	165	165
2	290	6,640	1,300	4,790	5,230	3,740	1,920	900	900	780	165	165
3	290	11,400	1,160	5,230	4,360	3,540	2,260	900	780	965	165	165
4	290	10,900	1,030	6,890	8,430	3,540	2,790	900	725	560	165	165
5	290	7,650	1,030	6,640	18,600	3,540	3,160	900	670	460	165	165
6	290	5,230	1,160	5,230	22,600	3,350	3,160	900	670	415	165	165
7	290	3,540	1,230	4,360	21,400	3,160	2,790	900	670	370	165	165
8	290	2,610	1,920	9,770	14,800	3,540	2,430	780	670	370	165	165
9	290	2,090	2,430	17,900	9,230	3,940	2,260	780	670	330	165	165
10	290	1,760	2,790	21,400	6,640	4,150	2,000	670	670	290	165	165
11	220	1,600	2,610	20,700	5,460	3,940	1,840	670	615	330	165	165
12	220	1,520	2,430	13,900	4,790	3,940	1,760	670	560	370	165	165
13	220	1,300	2,090	11,200	5,460	4,150	1,600	780	510	370	165	192
14	220	1,840	1,920	11,700	7,390	3,940	1,600	1,230	460	370	165	330
15	220	5,920	2,000	14,200	9,230	3,540	1,600	1,760	460	415	165	510
16	220	7,910	2,790	14,500	9,230	3,160	1,450	2,180	460	615	165	1,030
17	220	7,390	3,350	12,000	7,140	2,790	1,450	2,090	460	510	165	1,100
18	220	7,140	8,430	8,960	5,690	2,610	1,380	1,840	460	415	900	840
19	220	7,140	8,430	6,640	4,790	2,790	1,300	3,160	460	330	415	615
20	220	6,160	8,430	5,230	3,940	3,160	1,160	9,230	460	290	460	510
21	670	5,010	6,160	4,360	3,540	3,350	1,160	10,300	460	290	370	370
22	1,840	3,160	4,790	4,150	3,350	3,160	1,160	6,640	460	220	290	330
23	4,360	2,260	3,940	4,360	3,160	2,790	1,160	3,540	460	220	255	283
24	2,430	2,430	3,540	3,940	3,160	2,430	1,030	2,430	615	220	220	248
25	1,450	2,430	3,160	3,540	4,150	2,260	965	2,180	615	220	220	220
26	1,030	2,090	2,970	3,160	5,010	2,430	900	1,840	560	220	220	220
27	840	1,920	2,790	3,540	5,010	3,160	900	1,520	670	220	220	214
28	670	1,760	4,360	7,140	4,570	3,160	900	1,300	560	220	220	214
29	670	1,760	7,140	10,900	-------	2,790	900	1,230	510	220	220	276
30	965	1,520	9,230	12,000	-------	2,430	900	1,160	460	192	165	248
31	1,520	-------	8,690	9,770	-------	2,090	-------	1,160	-------	165	165	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,360	220	695	0.254	0.29
November	11,400	1,300	4,240	1.55	1.73
December	9,230	1,030	3,700	1.35	1.56
January	21,400	3,160	8,850	3.23	3.72
February	22,600	3,160	7,610	2.78	2.90
March	4,150	2,090	3,240	1.18	1.36
April	3,160	900	1,660	.60¢	.68
May	10,300	670	2,110	.77¢	.89
June	1,030	460	591	.21¢	.24
July	965	165	368	.134	.15
August	900	165	230	.084	.10
September	1,100	165	324	.11¢	.13
The year	22,600	165	2,770	1.01	13.75

GREEN RIVER AT LIVERMORE, KY.

LOCATION.—Staff gage at Louisville & Nashville Railroad bridge at Livermore, McLean County, 650 feet below Rough River. Zero of gage 360.65 feet above mean sea level.

DRAINAGE AREA.—7,800 square miles.

RECORDS AVAILABLE.—March to September, 1930.

EXTREMES.—Maximum discharge during period, 26,600 second-feet May 21, 22 (gage height, 9.7 feet); minimum, 285 second-feet Aug. 11–14, Sept. 4–6 (gage height, 3.45 feet).

REMARKS.—Records good except those for low stages, May 12 to July 15, which are fair.

Daily and monthly discharge, in second-feet, 1930

Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1		4,690	1,730	2,370	805	385	330
2		4,350	1,730	2,090	750	385	330
3		5,770	1,730	1,830	750	385	312
4		7,770	1,730	1,710	805	385	285
5		8,620	1,840	1,370	805	385	285
6		8,190	1,840	1,270	805	385	285
7		7,350	1,730	1,370	805	385	312
8		6,540	[a] 1,730	1,370	750	330	330
9		5,770	1,730	1,370	600	330	330
10		5,040	[a] 1,730	1,370	600	330	330
11		4,350	1,730	1,270	550	285	330
12		4,020	1,590	1,170	515	285	385
13		3,700	1,710	1,080	490	285	385
14		3,390	2,090	1,000	502	285	385
15		3,390	2,520	1,000	600	330	466
16		3,240	3,120	930	1,600	385	730
17		3,090	3,590	930	1,870	385	1,080
18		3,090	3,590	860	1,380	385	1,380
19		3,090	4,440	860	1,080	544	1,350
20		2,790	13,600	860	820	1,120	1,080
21		2,790	25,000	860	544	1,240	874
22	9,500	2,500	25,600	860	505	1,120	698
23	8,190	[a] 2,360	15,800	860	418	1,120	544
24	6,540	2,220	8,600	750	385	650	418
25	5,770	2,090	6,900	860	440	570	440
26	5,770	1,960	5,340	930	505	544	440
27	6,540	1,960	4,610	930	505	418	440
28	6,940	1,620	3,920	860	505	330	385
29	6,540	1,620	3,120	860	440	330	385
30	5,770	1,620	2,660	860	385	330	385
31	5,040	-------	2,370	-------	385	330	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
Mar. 22–31	9,500	5,040	6,660	0.854	0.32
April	8,620	1,620	3,970	.509	.57
May	25,600	1,590	5,140	.659	.76
June	2,370	750	1,160	.149	.17
July	1,870	385	706	.091	.10
August	1,240	285	482	.062	.07
September	1,380	285	524	.067	.07

[a] Interpolated.

GREEN RIVER AT LOCK 1, AT SPOTTSVILLE, KY.

LOCATION.—Staff gage above dam at Lock 1, at Spottsville, Henderson County. Zero of gage 342.58 feet above mean sea level.

DRAINAGE AREA.—9,000 square miles.

RECORDS AVAILABLE.—January, 1928, to September, 1930.

EXTREMES.—Maximum stage during year, 29.0 feet Jan. 17, 18 (discharge not determined); minimum discharge, 340 second-feet Aug. 7–15 (gage height, 6.85 feet).

1928–1930: Maximum stage, 31.1 feet Mar. 10, 11, 1929 (discharge not determined); minimum discharge, that of Aug. 7–15, 1930.

REMARKS.—Records fair except those for low stages, which are poor. Backwater from Ohio River occurred on days for which no record is shown.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	720	2,620			26,300	20,200	5,500	1,630	2,470	1,130	400	400
2	635	7,500	3,080		22,300		4,980	1,630	2,320	1,130	400	400
3	550	11,600	2,770		19,500		5,150	1,630	1,900	1,020	400	400
4	550	19,500	2,620		23,100	10,700	7,500	1,630	1,900	1,020	400	400
5	550	23,900	2,470		37,500	8,390	9,200	1,630	1,630	1,090	400	400
6	635	20,900	2,470			8,200	9,200	1,630	1,370	1,130	400	340
7	720	14,300	2,620				8,300	1,630	1,370	1,130	376	584
8	2,470		3,400				7,500	1,630	1,370	910	340	720
9			3,920				6,700	1,630	1,370	910	340	720
10			4,800			10,200	5,900	1,630	1,370	910	340	550
11			5,900			9,970	4,980	1,630	1,370	815	340	400
12	1,130	3,750	5,900			8,260	4,450	1,900	1,370	720	340	400
13	1,130	3,750	5,150			6,850	4,100	1,630	1,370	720	340	400
14	635	10,100	5,900			7,550	3,750	1,760	1,370	550	400	400
15	550	15,500	5,900			8,590	3,750	2,040	1,320	550	400	635
16	400	16,700	7,100				3,750	2,620	1,130	815	400	1,130
17	400		9,200			9,670	3,750	3,400	1,130	1,630	550	1,130
18	400		15,500			9,480	3,750	3,750	1,130	1,900	910	1,630
19	400					9,930	3,750	4,100	1,130	1,760	635	1,630
20	400			49,600	14,400		3,750	8,300	1,130	1,370	910	1,370
21	1,500				12,800	10,800	3,240	18,100	1,130	1,130	1,180	1,130
22	2,770						3,080	23,900	1,130	910	1,320	910
23	4,980				8,300		2,770	19,500	1,130	815	1,130	910
24	6,700				7,500		2,770	10,600	1,130	635	954	720
25	6,700			26,000	8,300		2,470	6,700	1,130	550	815	720
26	4,980				22,300		2,320	5,900	1,760	550	584	720
27	2,770				27,600		2,180	4,800	1,130	550	550	720
28	2,040			15,800	22,600		1,900	3,920	1,130	550	520	550
29	1,900						1,630	3,400	1,130	550	430	550
30	1,500			27,100			1,630	3,080	1,130	550	400	550
31	1,500			28,700				2,770		400	400	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
April	9,200	1,630	4,460	0.496	0.55
May	23,900	1,630	4,840	.538	.62
June	2,470	1,130	1,380	.153	.17
July	1,900	400	916	.102	.12
August	1,320	340	558	.062	.07
September	1,630	340	717	.080	.09

BARREN RIVER AT LOCK 1, AT GREENCASTLE, KY.

LOCATION.—Staff gage above dam at Lock 1, half a mile southwest of Greencastle, Warren County. Zero of gage 404.79 feet above mean sea level.
DRAINAGE AREA.—1,950 square miles.
RECORDS AVAILABLE.—October, 1924, to September, 1930.
EXTREMES.—Maximum discharge during year, 17,900 second-feet May 20 (gage height, 14.0 feet); minimum, 53 second-feet Aug. 13, Sept. 4–12 (gage height, 7.2 feet).

1924–1930: Maximum discharge, 37,500 second-feet Dec. 24, 1926 (gage height, 27.0 feet); minimum, that of Aug. 13, Sept. 4–12, 1930.

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

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	183	2,110	1,020	4,040	4,040	3,180	1,760	705	957	273	183	106
2	183	4,040	957	3,180	3,390	2,980	1,600	705	830	273	183	106
3	183	12,800	957	3,820	2,980	2,780	1,680	705	830	273	106	80
4	183	9,170	830	4,980	4,270	2,390	2,300	1,160	705	273	106	53
5	183	5,230	830	4,500	10,200	2,300	2,580	894	705	273	106	53
6	183	3,390	830	3,600	12,800	2,200	2,300	830	768	273	106	53
7	183	2,390	830	3,180	10,200	2,020	2,020	705	957	273	106	53
8	183	1,940	1,020	4,270	6,900	2,300	2,020	586	830	273	106	53
9	183	1,600	1,370	9,870	5,490	2,780	1,760	586	768	228	106	53
10	183	1,300	1,520	15,000	4,040	2,390	1,600	586	645	183	106	53
11	183	1,090	1,370	12,400	3,180	2,200	1,520	586	586	183	106	53
12	183	1,090	1,300	7,830	2,780	2,390	1,370	705	586	183	80	53
13	183	957	1,230	6,600	3,180	3,390	1,370	705	530	422	53	144
14	183	1,300	1,230	6,600	9,170	3,180	1,230	705	474	1,760	106	474
15	183	5,230	1,230	10,600	9,870	2,580	1,230	1,090	474	1,160	106	422
16	183	8,490	1,600	12,000	7,830	2,300	1,230	1,090	370	768	106	370
17	183	5,490	2,390	8,830	5,490	2,020	1,230	894	474	530	106	370
18	183	4,980	3,180	6,030	4,500	2,020	1,230	830	474	530	144	370
19	106	5,490	3,600	4,500	3,600	2,390	1,020	9,520	474	474	645	370
20	106	4,040	3,390	3,600	3,180	4,980	957	17,900	474	370	768	322
21	370	2,980	2,780	2,980	2,780	4,500	957	11,700	474	322	530	183
22	830	2,200	2,300	2,980	2,390	3,180	830	4,980	474	273	322	183
23	2,110	1,850	2,020	3,180	2,390	2,780	830	2,980	474	273	228	144
24	2,020	1,680	1,940	2,780	3,600	2,390	830	2,780	370	273	183	106
25	1,160	1,520	1,680	2,390	4,500	2,200	830	2,780	422	183	183	106
26	768	1,370	1,680	2,200	4,040	2,780	830	2,390	370	183	106	106
27	586	1,300	2,300	2,390	3,820	3,180	830	1,760	370	183	106	106
28	474	1,230	6,600	4,740	3,600	2,780	705	1,440	370	183	106	106
29	474	1,230	6,600	8,160	-------	2,300	705	1,230	370	183	106	106
30	645	1,230	6,900	6,030	-------	2,020	705	1,090	273	183	106	106
31	1,090	-------	5,230	5,230	-------	1,940	-------	1,090	-------	183	106	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,110	106	453	0.232	0.27
November	12,800	957	3,290	1.69	1.89
December	6,900	830	2,280	1.17	1.35
January	15,000	2,200	5,760	2.95	3.40
February	12,800	2,390	5,150	2.64	2.75
March	4,980	1,940	2,670	1.37	1.58
April	2,580	705	1,340	.687	.77
May	17,900	586	2,440	1.25	1.44
June	957	273	563	.289	.32
July	1,760	183	368	.189	.22
August	768	53	178	.091	.10
September	474	53	162	.083	.09
The year	17,900	53	2,040	1.05	14.18

ROUGH RIVER AT DUNDEE, KY.

LOCATION.—Chain gage on Louisville & Nashville Railroad bridge at Dundee, Ohio County. Zero of gage 391.99 feet above mean sea level.
DRAINAGE AREA.—775 square miles.
RECORDS AVAILABLE.—April to September, 1930.
EXTREMES.—Maximum discharge during period, 225 second-feet May 19 (gage height, 7.63 feet); minimum, 11 second-feet July 29 (gage height, 2.31 feet).
REMARKS.—Records poor.

Daily and monthly discharge, in second-feet, 1930

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	------	129	78	37	23	51	16	190	169	29	27	21	141
2	------	137	48	133	20	45	17	185	165	51	27	31	121
3	------	145	45	161	16	45	18	195	185	78	23	42	113
4	------	141	51	137	15	45	19	190	225	81	23	54	109
5	------	145	54	93	18	45	20	185	220	69	23	54	93
6	------	141	57	54	21	45	21	177	200	57	19	69	81
7	------	133	51	31	21	33	22	169	181	57	14	69	75
8	------	121	35	19	20	31	23	165	173	57	29	66	69
9	------	117	27	25	16	29	24	157	161	51	24	66	69
10	------	125	33	27	12	31	25	149	153	60	24	60	69
11	------	126	33	29	12	37	26	145	141	113	25	51	69
12	195	128	31	27	15	54	27	141	121	109	19	54	66
13	195	129	31	25	14	57	28	133	105	89	16	60	66
14	190	165	31	20	21	57	29	133	85	75	11	57	63
15	185	181	27	12	21	81	30	125	81	57	12	57	51
							31	------	85	------	20	54	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
April 12-30	195	125	168	0.217	0.15
May	225	81	146	.188	.22
June	113	27	55.5	.072	.08
July	161	11	37.6	.049	.06
August	69	12	36.5	.047	.05
September	141	29	64.7	.083	.09

POND RIVER NEAR WHITE PLAINS, KY.

LOCATION.—Chain gage at Illinois Central Railroad bridge 3 miles northeast of White Plains, Hopkins County. Zero of gage 375.98 feet above mean sea level.

DRAINAGE AREA.—315 square miles.

RECORDS AVAILABLE.—June, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, about 7,850 second-feet Jan. 10 (gage height, 16.26 feet); minimum, 0.3 second-foot July 31 (gage height, 0.70 foot).

1928–1930: Maximum discharge, that of Jan. 10, 1930; minimum, 0.1 second-foot Sept. 20, 1928.

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	15	27	441	1,650	1,520	75	15	6.2	6.4	1.3	3.9
2	11	22	22	525	1,120	1,040	106	13	6.4	5.5	1.8	4.1
3	11	39	18	1,160	830	615	615	12	5.9	4.3	1.8	3.9
4	11	138	18	1,360	1,140	391	1,120	11	5.7	3.9	1.6	3.2
5	10	90	19	1,090	2,150	270	930	11	5	3	1.1	2.9
6	10	55	20	645	4,190	215	585	11	5	2.7	.7	2.7
7	11	33	29	540	4,020	215	367	11	4.6	2.2	1.2	2.4
8	12	20	55	2,320	3,230	280	224	10	4.1	1.3	1.9	2.6
9	12	18	78	6,050	2,320	290	157	9	3.7	.9	1.9	2.4
10	11	17	124	7,450	1,520	233	120	8.7	3.4	.6	1.7	2.2
11	11	17	117	5,280	930	189	106	11	2.8	.4	1.2	2.2
12	10	16	96	3,850	585	173	92	18	4.1	.6	.8	2.2
13	10	103	90	3,530	1,040	157	82	24	3.7	1	.6	2.4
14	9.4	790	90	3,090	1,520	141	72	26	3.4	1.3	1.6	3
15	9	1,420	159	2,960	1,650	127	66	24	3	1	3.4	4.3
16	8.6	1,520	555	2,960	1,480	113	63	36	2.8	.7	5.2	4.3
17	8.6	1,390	930	2,610	990	99	57	36	4.8	.6	7	4.1
18	8	870	1,360	2,000	615	120	54	22	5	2	7	3.9
19	7.4	415	2,000	1,300	428	260	54	23	3	6.4	5.2	3.2
20	7.4	175	3,530	790	290	367	92	149	3	5.7	14	2.7
21	9	110	4,190	585	224	290	75	189	3.9	4.6	12	2.7
22	18	84	3,380	510	189	197	54	106	4.6	3.9	9	2.2
23	15	66	2,410	454	181	149	46	52	32	3.2	7.5	2
24	13	58	1,520	391	197	127	39	28	23	3	6.6	2.2
25	12	50	950	322	224	127	32	14	8.2	1.9	5.7	2
26	17	48	615	251	1,120	134	26	11	6.7	1.8	5.4	1.7
27	16	43	540	242	1,650	134	24	9.9	6.9	1.5	5	1.3
28	15	41	710	1,060	1,750	120	20	9	32	1.1	4.3	.9
29	15	39	1,090	1,600	-------	106	18	8	15	.7	4.3	.8
30	14	29	1,040	2,000	-------	92	17	6.9	8	.4	3.9	.8
31	14	-------	690	2,070	-------	82	-------	6.9	-------	.3	3.4	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	18	7.4	11.6	0.037	0.04
November	1,520	15	258	.819	.91
December	4,190	18	854	2.71	3.12
January	7,450	242	1,920	6.10	7.03
February	4,190	181	1,330	4.22	4.39
March	1,520	82	270	.857	.99
April	1,120	17	180	.571	.64
May	189	6.9	29.7	.094	.11
June	32	2.8	7.53	.024	.03
July	6.4	.3	2.35	.0075	.009
August	14	.6	4.13	.013	.01
September	4.3	.8	2.64	.0084	.009
The year	7,450	.3	401	1.27	17.29

WABASH RIVER BASIN

WABASH RIVER AT LOGANSPORT, IND.

LOCATION.—Chain gage in sec. 35, T. 27 N., R. 1 E., at Cicott Street Bridge at Logansport, 1,000 feet below Eel River. Zero of gage 573.21 feet above mean sea level.

DRAINAGE AREA.—3,830 square miles.

RECORDS AVAILABLE.—April, 1903, to July, 1906; May, 1923, to September, 1930.

EXTREMES.—Maximum discharge during year, 61,400 second-feet Jan. 15 (gage height, 17.8 feet); minimum, 310 second-feet several days in July and August (gage height, 2.9 feet).

1923–1930: Maximum discharge, that of Jan. 15, 1930; minimum, 111 second-feet Oct. 22, 1924 (gage height, 2.04 feet).

Maximum known stage, 25.5 feet Mar. 26, 1913.

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

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	435	1,250	3,140	10,300	2,530	9,600	4,230	2,140	680	565	380	380
2	435	1,250	3,140	33,800	2,140	6,850	3,780	2,530	680	565	380	565
3	435	3,780	2,330	39,800	2,140	4,700	3,140	2,140	680	565	380	380
4	435	12,600	2,530	32,800	2,530	3,350	2,730	1,590	565	565	380	380
5	435	9,250	2,530	22,100	3,780	3,350	2,330	1,420	565	565	310	1,100
6	435	5,450	1,770	13,400	4,000	2,930	2,140	1,420	565	465	310	380
7	435	4,950	1,770	15,000	3,560	2,930	1,770	1,260	680	465	2,930	380
8	435	2,330	1,770	28,400	3,350	2,730	1,770	1,260	680	380	1,590	380
9	435	1,770	2,530	36,800	2,930	2,530	1,590	1,260	680	380	1,260	380
10	435	1,590	3,350	34,800	3,140	2,530	1,590	1,260	680	380	1,100	380
11	435	1,770	3,350	29,000	2,730	2,530	1,590	1,100	680	310	810	380
12	435	3,780	2,730	23,400	2,730	2,330	1,420	1,100	680	310	680	380
13	435	5,200	3,140	33,300	3,140	2,140	1,420	1,100	680	310	680	380
14	435	5,200	17,600	44,300	4,950	2,140	1,260	1,100	680		565	380
15	435	3,780	20,300	60,300	5,450	1,950	1,260	1,100	680		565	380
16	435	3,780	15,800	53,700	4,000	1,770	1,770	1,100	565		465	465
17	435	3,780	15,400	36,800	2,930	1,590	3,350	1,100	565		465	380
18	435	3,560	29,000	20,300	2,930	1,590	9,950	1,100	680		380	380
19	435	3,140	27,500	9,600	2,730	3,560	14,200	1,100	950	380	380	380
20	435	2,930	19,800	6,550	2,730	4,230	12,600	1,100	950		380	380
21	435	2,530	12,600	5,700	3,560	3,780	5,950	1,100	810		310	380
22	955	1,950	7,500	4,460	4,230	3,140	9,250	1,100	810		310	380
23	1,770	1,770	6,250	3,350	4,950	2,330	5,700	1,100	810		310	380
24	2,930	1,770	4,700	2,730	7,500	2,140	4,230	950	680		310	380
25	5,950	1,590	4,000	2,730	13,800	1,770	3,350	950	680		380	465
26	3,350	1,250	3,560	2,730	20,800	6,850	2,730	950	680	1,260	380	465
27	2,530	1,250	3,560	2,530	22,100	7,150	2,330	810	465	3,140	380	680
28	2,530	1,100	3,780	2,530	15,800	5,200	2,140	680	565	1,260	380	565
29	1,420	1,590	4,700	2,930	-------	5,700	1,950	680	565	950	380	565
30	1,250	2,140	4,700	2,730	-------	6,250	1,950	680	565	680	380	565
31	1,250	-------	4,950	2,730	-------	5,200	-------	680	-------	465	380	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,950	435	1,070	0.279	0.32
November	12,600	1,100	3,270	.854	.95
December	29,600	1,770	7,730	2.02	2.33
January	60,300	2,530	20,000	5.22	6.02
February	22,100	2,140	5,610	1.46	1.52
March	9,600	1,590	3,700	.966	1.14
April	14,200	1,260	3,780	.987	1.10
May	2,530	680	1,190	.311	.36
June	950	465	673	.176	.20
July	3,140	310	585	.153	.18
August	2,930	310	590	.154	.18
September	1,100	380	447	.117	.13
The year	60,300	310	4,060	1.06	14.43

WABASH RIVER AT LAFAYETTE, IND.

LOCATION.—Tape gage in sec. 20, T. 23 N., R. 4 W., at Brown Street Bridge at Lafayette. Zero of gage 504.14 feet above mean sea level.

DRAINAGE AREA.—7,200 square miles.

RECORDS AVAILABLE.—May, 1901, to May, 1903; October, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 74,600 second-feet Jan. 16 (gage height, 24.07 feet); minimum, 650 second-feet Aug. 25 (gage height, 0.9 foot.)

1927–1930: Maximum and minimum discharge occurred in 1930.

Maximum stage known, 32.9 feet Mar. 26, 1913, (discharge not determined).

REMARKS.—Records good. Periods of ice effect Dec. 4–7, Jan. 24 to Feb. 5. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,140	2,180	1,480	21,000	12,000	23,100	10,800	6,070	1,330	1,000	1,210	1,330
2	1,040	3,340	1,880	36,100	11,400	15,900	10,000	6,830	1,330	1,000	810	1,000
3	1,140	3,000	2,030	53,100	9,600	12,900	9,000	6,070	2,020	1,000	810	2,020
4	1,040	12,700	2,660	55,500	10,800	12,900	7,400	5,500	1,580	1,100	810	1,100
5	1,040	12,700	3,000	48,200	12,400	8,800	6,640	4,740	1,330	1,100	900	1,210
6	1,040	9,000	2,830	37,300	14,800	8,600	5,880	4,740	1,210	1,720	1,100	900
7	950	6,450	2,830	20,400	12,200	7,800	4,550	3,980	1,580	1,100	1,000	900
8	950	4,770	2,660	41,000	10,600	7,020	5,310	3,980	1,450	1,000	2,680	900
9	950	3,690	2,500	49,000	10,200	6,070	4,740	3,410	1,450	1,100	3,410	900
10	1,040	3,690	3,340	52,600	9,800	6,070	4,550	3,410	1,720	900	2,510	1,000
11	1,140	3,340	3,690	50,000	8,600	6,640	4,360	3,790	1,720	1,100	1,580	900
12	1,360	3,870	3,870	43,600	7,600	6,450	4,170	3,410	1,580	900	1,330	810
13	1,040	4,590	3,870	45,000	8,400	5,880	4,170	3,410	1,580	1,100	1,330	810
14	1,140	7,800	10,400	57,000	10,600	5,500	3,790	4,740	1,330	810	1,210	900
15	1,140	7,600	23,100	70,500	12,200	4,930	4,170	3,410	1,330	810	1,100	1,000
16	1,140	6,260	22,800	73,500	11,000	4,360	6,450	3,220	1,000	810	1,000	1,000
17	1,140	5,500	21,200	70,000	8,800	3,600	12,000	3,040	1,210	810	1,000	900
18	1,140	4,770	22,500	60,000	7,020	5,120	15,900	2,680	1,450	900	1,000	900
19	1,140	4,770	38,500	41,400	7,020	5,690	24,300	2,680	1,330	810	900	810
20	1,140	4,410	36,900	21,000	6,260	8,000	20,400	4,550	1,580	810	810	900
21	1,140	4,410	28,800	15,400	6,260	7,600	17,400	4,360	1,870	810	900	900
22	1,040	4,230	22,500	13,300	9,400	6,830	19,200	3,980	1,720	900	1,000	810
23	1,480	3,690	12,200	14,100	10,400	6,260	16,800	3,980	1,330	810	730	810
24	1,740	5,130	10,600	15,900	12,200	5,310	12,900	2,860	1,330	810	730	810
25	5,690	4,410	9,800	16,300	20,000	5,690	10,400	2,860	1,330	730	650	1,000
26	5,690	3,000	7,800	15,600	29,900	6,830	8,800	2,020	1,100	810	900	1,100
27	4,590	3,170	8,800	15,000	34,100	12,700	7,400	2,860	1,210	810	900	810
28	3,340	3,170	8,800	15,900	32,000	10,800	7,020	3,980	1,100	3,220	810	810
29	3,340	2,830	9,600	14,800	-------	10,200	7,020	4,550	1,100	1,580	730	900
30	3,000	2,830	9,600	13,300	-------	9,200	6,830	1,720	1,000	1,870	730	1,100
31	2,660	-------	10,400	12,000	-------	12,400	-------	1,580	-------	1,330	810	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,690	950	1,790	0.249	0.29
November	12,700	2,180	5,040	.700	.78
December	38,500	1,480	11,300	1.57	1.81
January	73,500	12,000	35,700	4.96	5.72
February	34,100	6,260	12,700	1.76	1.83
March	23,100	3,600	8,360	1.16	1.34
April	24,300	3,790	9,410	1.31	1.46
May	6,830	1,580	3,820	.531	.61
June	2,020	1,000	1,410	.196	.22
July	3,220	730	1,080	.150	.17
August	3,410	650	1,140	.158	.18
September	2,020	810	975	.135	.15
The year	73,500	650	7,730	1.07	14.56

WABASH RIVER AT MONTEZUMA, IND.

LOCATION.—Chain gage in sec. 35, T. 16 N., R. 9 W., at highway bridge at Montezuma. Zero of gage 458.49 feet above mean sea level.
DRAINAGE AREA.—11,100 square miles.
RECORDS AVAILABLE.—October, 1927, to September, 1930.
EXTREMES.—Maximum discharge during year, 100,000 second-feet Jan. 16 (gage height, 27.0 feet); minimum discharge, 1,340 second-feet Aug. 25–27, Sept. 10, 11, 13, 23; minimum stage, 2.27 feet Oct. 9.
1927–1930: Maximum and minimum discharge occurred in 1930.
REMARKS.—Records good. Period of ice effect Dec. 1–5.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,630	3,210	2,100	22,500	12,100	41,400	16,000	10,900	3,680	2,240	2,100	1,450
2	1,630	4,680	2,360	41,000	11,700	32,500	15,000	10,000	3,340	2,100	1,960	1,570
3	1,630	4,680	2,630	49,200	10,900	28,900	13,900	9,810	3,170	2,100	1,820	1,820
4	1,630	4,680	2,770	56,000	11,100	22,800	12,400	9,390	3,010	1,960	1,570	2,240
5	1,520	10,900	2,910	61,400	12,400	17,600	10,200	8,780	3,010	1,960	1,570	1,820
6	1,630	11,700	3,060	62,800	13,500	14,800	9,600	8,580	2,850	2,240	1,570	1,570
7	1,520	9,180	3,510	63,500	14,600	13,700	9,180	8,380	2,850	4,040	1,450	1,570
8	1,520	7,580	4,330	67,700	15,300	12,600	7,780	6,580	2,850	3,170	1,690	1,570
9	1,520	5,410	4,330	65,600	15,500	11,500	7,580	6,580	2,850	2,390	1,820	1,450
10	1,520	5,040	4,330	69,200	15,500	10,900	6,780	5,980	2,850	2,240	2,690	1,340
11	1,630	4,860	4,330	67,700	14,600	10,200	6,580	5,780	2,690	2,100	3,010	1,340
12	1,630	4,680	5,790	69,200	13,900	10,000	6,380	5,580	2,690	2,100	2,390	1,450
13	1,860	5,410	6,780	79,300	17,600	9,810	6,180	5,380	2,690	1,960	2,390	1,340
14	1,860	5,790	18,300	88,400	16,700	9,180	6,180	5,580	2,690	1,820	2,390	1,450
15	1,860	9,390	20,000	98,800	16,200	8,580	5,980	5,980	2,540	1,820	2,100	1,570
16	1,740	8,580	24,000	100,000	15,000	8,380	9,390	5,580	2,690	1,690	1,960	1,570
17	1,740	7,380	32,800	94,000	13,900	7,780	13,000	5,180	2,540	1,690	1,820	1,820
18	1,740	6,380	39,800	89,500	12,100	7,180	21,000	5,180	2,540	1,690	1,690	1,690
19	1,630	5,790	43,400	78,400	11,300	7,980	24,500	4,980	2,540	1,570	1,570	1,570
20	1,740	5,600	41,000	64,200	11,100	8,580	25,600	4,790	2,540	1,570	1,690	1,570
21	1,740	5,220	40,200	49,200	11,100	10,200	27,400	5,980	2,390	1,450	1,570	1,450
22	2,230	5,220	35,500	36,900	12,600	10,000	30,100	6,580	2,690	1,450	1,570	1,450
23	2,360	4,860	34,100	28,300	20,500	9,390	30,400	5,780	2,540	1,570	1,450	1,340
24	2,490	4,330	23,500	24,000	21,000	8,580	28,000	5,580	2,390	1,570	1,450	1,450
25	2,490	3,990	18,000	21,500	31,600	8,980	21,800	5,180	3,010	1,570	1,340	1,570
26	2,490	3,510	16,200	18,000	37,600	9,600	16,900	4,410	2,850	1,450	1,340	1,570
27	4,860	3,670	14,100	16,700	41,400	10,200	15,700	4,410	2,540	1,450	1,340	1,690
28	4,680	3,360	15,500	14,600	41,400	13,900	13,000	4,220	2,390	1,450	1,450	1,570
29	3,990	3,360	16,000	13,900	-------	14,100	11,900	4,040	2,390	2,850	1,450	1,450
30	3,670	1,980	15,700	13,700	-------	14,600	11,300	3,860	2,240	3,010	1,450	1,570
31	3,360	-------	15,500	13,200	-------	15,700	-------	3,510	-------	2,390	1,450	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,860	1,520	2,180	0.196	0.12
November	11,700	1,980	5,680	.512	.57
December	43,400	2,100	16,500	1.49	1.72
January	100,000	13,200	52,900	4.77	5.50
February	41,400	10,900	17,600	1.59	1.66
March	41,400	7,180	13,500	1.22	1.41
April	30,400	5,980	14,700	1.32	1.47
May	10,900	3,510	6,210	.559	.64
June	3,680	2,240	2,730	.246	.27
July	4,040	1,450	2,020	.182	.21
August	3,010	1,340	1,780	.160	.18
September	2,240	1,340	1,560	.141	.16
The year	100,000	1,340	11,500	1.04	14.02

WABASH RIVER AT TERRE HAUTE, IND.

LOCATION.—Water-stage recorder in sec. 21, T. 12 N., R. 9 W., at Wabash Avenue Bridge at Terre Haute. Zero of gage 442.90 feet above mean sea level.

DRAINAGE AREA.—12,200 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1930. At Vandalia Railway bridge 2,600 feet upstream August, 1902, to December, 1905; February, 1905, to July, 1906.

EXTREMES.—Maximum discharge during year, 104,000 second-feet Jan. 16 (gage height, 25.63 feet); minimum, 1,450 second-feet Aug. 27, 28, 30, 31, Sept. 1 (gage height, 3.05 feet).

1927–1930: Maximum and minimum discharge occurred in 1930.

Maximum stage known, about 33.0 feet, present datum, Mar. 27, 1913.

REMARKS.—Records good except those for period of ice effect, Jan. 18 to Feb. 9, which are fair. Gage heights Dec. 21–27 computed from records at United States Weather Bureau gage 3,300 feet upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,590	3,750	1,660	22,000	18,500	40,300	16,400	12,000	3,750	2,670	2,520	1,450
2	1,590	4,870	1,590	34,000	17,000	40,300	16,000	11,300	3,750	2,520	2,220	1,520
3	1,590	5,210	2,370	43,300	15,500	37,000	15,000	10,900	3,910	2,520	1,940	1,730
4	1,590	5,550	2,520	50,000	14,500	29,600	13,400	10,700	3,430	2,520	1,800	1,940
5	1,590	9,950	2,520	55,600	15,000	22,000	12,000	9,950	3,590	2,370	1,730	2,220
6	1,590	11,600	2,820	59,100	15,000	17,900	10,700	9,050	3,430	2,970	1,660	1,940
7	1,590	10,100	3,120	64,800	15,500	16,200	9,950	8,510	3,270	4,870	1,660	1,800
8	1,590	8,150	3,590	70,800	16,000	15,000	8,870	7,970	3,430	4,070	1,660	1,660
9	1,520	6,570	4,070	71,900	16,500	13,800	8,510	7,430	3,430	3,120	1,800	1,590
10	1,520	5,380	4,550	73,000	16,700	12,800	7,970	7,080	3,270	2,670	2,670	1,520
11	1,660	5,380	4,550	70,800	15,400	12,000	7,430	6,740	3,270	2,520	3,120	1,520
12	1,800	5,720	5,720	71,900	15,400	11,600	7,250	6,570	3,430	2,370	2,820	1,520
13	1,940	7,080	7,530	79,600	17,500	11,300	7,080	6,230	3,270	2,220	2,520	1,520
14	1,940	8,330	16,700	87,800	18,100	11,100	6,910	6,230	3,270	2,080	2,520	1,520
15	1,940	9,230	19,600	100,000	17,700	9,950	6,740	6,570	3,270	2,080	2,370	1,730
16	1,940	9,230	22,200	104,000	16,700	9,410	7,800	6,570	3,120	1,940	2,220	1,730
17	1,800	8,330	28,000	99,100	14,800	9,050	12,800	6,060	3,120	1,940	1,940	1,940
18	1,730	7,250	36,500	96,000	13,400	8,690	18,600	5,890	2,970	1,940	1,940	1,940
19	1,660	6,740	42,100	93,000	12,600	8,870	22,500	5,720	2,970	1,800	1,800	1,800
20	1,660	6,230	42,700	77,000	12,000	9,590	24,000	5,720	3,120	1,800	1,730	1,660
21	1,730	5,890	41,500	60,000	12,000	10,700	25,000	6,400	2,970	1,730	1,730	1,590
22	1,800	5,720	39,700	47,000	12,600	11,300	26,400	7,080	2,970	1,660	1,660	1,520
23	1,940	5,550	38,000	34,000	15,000	10,700	27,000	6,910	3,120	1,660	1,590	1,590
24	2,520	5,210	29,700	33,000	19,000	9,950	26,400	6,400	3,430	1,800	1,590	1,590
25	2,820	4,710	21,400	32,000	27,000	9,410	23,200	5,720	4,390	1,800	1,590	1,660
26	3,750	4,230	17,500	29,500	33,500	10,100	19,000	5,210	3,430	1,660	1,520	1,660
27	5,550	4,070	16,400	26,500	37,000	11,300	16,000	4,870	3,120	1,590	1,450	1,800
28	5,380	4,070	16,900	24,500	39,100	13,600	14,200	4,710	2,820	1,660	1,450	1,800
29	4,550	3,910	17,100	22,000	-------	15,200	13,400	4,710	2,670	2,220	1,520	1,660
30	4,070	2,520	16,900	20,500	-------	15,600	12,800	4,390	2,670	3,120	1,450	1,590
31	3,910	-------	17,700	19,500	-------	16,000	-------	4,230	-------	2,820	1,450	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,550	1,520	2,320	0.190	0.22
November	11,600	2,520	6,350	.520	.58
December	42,700	1,590	17,000	1.39	1.60
January	104,000	19,500	57,200	4.69	5.41
February	39,100	12,000	18,200	1.49	1.55
March	40,300	8,690	15,500	1.27	1.46
April	27,000	6,740	14,800	1.21	1.35
May	12,000	4,230	7,030	.576	.66
June	4,390	2,670	3,290	.270	.30
July	4,870	1,590	2,350	.193	.22
August	3,120	1,450	1,920	.157	.18
September	2,220	1,450	1,690	.139	.16
The year	104,000	1,450	12,300	1.01	13.69

WABASH RIVER AT VINCENNES, IND

LOCATION.—Chain and staff gages at highway bridge at Vincennes, Knox County. Zero of both gages 396.43 feet above mean sea level.
DRAINAGE AREA.—14,000 square miles.
RECORDS AVAILABLE.—December, 1929, to September, 1930.
EXTREMES.—Maximum discharge during year, about 114,000 second-feet Jan. 17 (gage height, 25.2 feet); minimum, 1,850 second-feet Sept. 23, 26–28, 30 (gage height, 0.1 foot).
REMARKS.—Records good between 3,000 and 60,000 second-feet; others fair. Discharge estimated Aug. 1 to Sept. 20. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1929–30

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Aug.	Sept.
1	4,970	21,800	22,100	37,400	16,600	14,000	4,180	2,490	2,090
2	4,970	23,800	21,000	39,200	18,200	13,300	3,810	2,640	2,090
3	4,970	33,000	20,400	39,900	20,100	12,800	3,450	2,490	2,090
4	4,570	35,700	19,600	41,000	18,500	11,800	3,110	2,350	2,090
5	4,180	37,400	20,700	41,400	16,100	11,300	3,110	2,220	2,220
6	4,180	39,600	21,000	39,900	14,000	11,000	2,950	2,220	2,640
7	3,990	45,400	20,100	34,300	12,800	10,500	2,950	2,090	2,640
8	4,180	54,200	21,200	25,600	11,800	9,790	2,640	1,970	2,640
9	4,570	63,000	22,900	20,400	10,500	9,310	2,640	1,970	2,640
10	4,570	70,900	23,500	17,100	9,310	8,610	2,640	2,090	2,350
11	4,970	77,000	24,100	15,600	9,070	7,920	2,640	2,350	2,220
12	4,970	82,200	23,200	14,300	8,610	7,700	2,640	2,640	2,220
13	5,370	86,600	27,700	13,300	8,150	7,480	2,790	2,790	1,970
14	5,980	82,200	28,000	12,800	7,700	7,040	2,790	2,950	1,970
15	12,500	87,900	26,500	12,500	7,480	6,820	2,640	2,950	3,280
16	20,100	106,000	24,400	11,500	7,480	6,820	2,950	2,950	3,630
17	21,800	114,000	21,800	11,000	7,480	6,820	2,950	2,950	3,450
18	24,400	103,000	20,700	10,300	10,800	7,040	3,110	3,110	2,790
19	32,600	86,600	17,900	10,000	15,600	6,610	3,110	2,950	2,350
20	36,800	78,600	16,100	9,550	20,400	6,610	3,110	2,790	2,090
21	37,400	74,100	15,300	9,550	23,200	5,980	3,280	2,640	1,970
22	37,400	72,700	14,500	10,500	24,700	5,770	3,110	2,640	1,970
23	37,800	70,300	15,000	11,500	25,600	5,770	2,950	2,640	1,850
24	38,200	67,700	17,700	11,500	27,100	5,980	2,790	2,490	1,970
25	39,200	61,000	19,800	10,800	27,400	7,260	2,790	2,490	1,970
26	39,600	53,400	29,600	11,500	26,500	7,700	3,450	2,350	1,850
27	35,700	45,800	34,000	11,000	23,200	6,400	3,810	2,350	1,850
28	25,600	37,800	36,400	12,000	19,600	5,770	3,450	2,220	1,850
29	23,500	33,300	-------	13,300	15,300	5,370	3,110	2,220	1,970
30	22,600	27,700	-------	15,300	14,500	5,170	3,110	2,220	1,850
31	22,100	24,100	-------	15,800	-------	4,970	-------	2,090	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
December	39,600	3,990	18,500	1.32	1.52
January	114,000	21,800	61,200	4.37	5.04
February	36,400	14,500	22,300	1.59	1.66
March	41,400	9,550	19,000	1.36	1.57
April	27,400	7,480	15,900	1.14	1.27
May	14,000	4,970	8,050	.575	.66
June	4,180	2,640	3,070	.219	.24
August	3,110	1,970	2,490	.178	.21
September	3,630	1,850	2,290	.164	.18

NOTE.—No record for July.

WABASH RIVER AT MOUNT CARMEL, ILL.

LOCATION.—Water-stage recorder at Southern Railway bridge at Mount Carmel. Zero of gage 372.45 feet above mean sea level.

DRAINAGE AREA.—28,600 square miles.

RECORDS AVAILABLE.—January, 1908, to September, 1913; October, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 279,000 second-feet Jan. 17 (gage height, 27.06 feet); minimum, 2,660 second-feet Sept. 4 (gage height, 0.60 foot).

1908–1913, 1928–1930: Maximum stage, 31.0 feet Mar. 30, 1913 (discharge not determined); minimum, 0.3 foot Sept. 12, 1908 (discharge not determined).

REMARKS.—Records good. Discharge computed on basis of slope as obtained by use of auxiliary chain gage on Cleveland, Cincinnati, Chicago & St. Louis Railway bridge 3 miles downstream.

Daily and monthly, discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,950	9,040	10,800	47,500	42,600	81,200	31,700	22,900	8,350	5,850	4,010	2,780
2	4,060	9,700	7,900	51,500	38,900	84,900	32,900	22,300	7,400	5,250	4,060	2,750
3	4,060	12,400	8,350	61,000	36,700	94,300	36,900	21,600	6,910	4,680	3,590	2,720
4	4,040	14,800	6,920	67,500	38,500	95,100	40,100	20,500	6,700	4,600	3,380	2,660
5	4,050	15,800	8,470	71,300	43,500	96,500	40,500	19,700	6,700	4,500	3,170	2,660
6	4,060	16,900	10,100	76,800	47,300	94,000	39,200	19,000	6,280	4,300	3,130	2,990
7	4,030	20,600	9,800	84,700	49,400	71,500	37,600	18,100	6,280	4,250	3,060	3,680
8	3,960	21,700	10,100	102,000	52,400	53,600	34,400	16,700	6,060	4,170	2,960	3,610
9	3,820	19,700	12,200	122,000	53,000	42,700	29,500	15,800	6,060	5,450	2,850	3,320
10	3,940	16,400	12,300	140,000	52,000	36,600	23,700	15,400	6,060	5,650	2,800	3,020
11	3,900	14,400	12,700	152,000	41,300	35,100	21,200	14,800	6,060	5,450	3,050	2,980
12	3,980	13,000	13,000	166,000	21,400	34,000	20,100	14,200	6,060	4,870	3,600	2,910
13	4,230	12,600	13,600	184,000	56,800	32,500	18,700	13,200	5,850	4,500	3,630	2,980
14	4,200	14,000	15,500	208,000	67,900	30,300	17,700	12,900	6,040	4,240	3,960	3,010
15	4,240	17,200	20,000	226,000	67,900	28,200	17,100	12,900	5,650	3,970	3,910	3,880
16	4,500	20,300	27,200	254,000	69,000	25,900	16,800	12,300	5,850	3,810	3,760	5,850
17	4,340	22,200	33,700	277,000	67,900	24,500	16,100	12,500	5,850	3,880	3,830	7,150
18	4,300	23,200	42,200	274,000	65,000	23,000	18,100	12,900	5,650	3,760	3,700	6,060
19	4,230	22,500	60,400	239,000	61,600	22,300	23,400	12,000	5,650	3,700	3,760	5,250
20	4,200	21,400	62,000	227,000	52,400	21,600	29,500	11,700	5,250	3,690	3,440	4,560
21	4,480	20,200	62,600	216,000	36,400	21,200	34,700	11,100	5,450	3,750	3,190	4,110
22	4,620	18,000	74,500	208,000	35,500	20,800	36,700	11,100	5,850	3,610	3,060	3,830
23	5,160	16,300	94,700	194,000	34,000	21,900	38,500	11,700	5,450	3,440	3,140	3,550
24	5,890	14,600	82,600	183,000	34,300	22,300	38,500	12,000	5,250	3,370	3,080	3,410
25	7,330	14,100	100,000	161,000	39,500	22,600	39,700	11,700	5,450	3,410	2,980	3,540
26	9,120	13,300	106,000	130,000	52,300	24,200	39,700	10,800	5,640	3,440	2,980	3,890
27	9,900	12,300	101,000	98,000	69,200	25,300	38,300	9,940	6,480	3,470	2,910	3,290
28	10,000	11,700	66,800	86,400	76,400	27,100	32,400	9,430	6,060	3,330	2,840	3,090
29	11,000	10,700	54,000	71,100	-------	29,400	27,300	8,650	5,450	3,060	2,720	3,350
30	10,600	10,400	51,100	58,200	-------	30,300	24,000	8,610	5,850	3,000	2,750	3,150
31	9,520	-------	48,100	47,400	-------	30,400	-------	8,610	-------	3,100	2,780	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,000	3,820	5,470	0.191	0.22
November	23,200	9,040	16,000	.559	.62
December	106,000	6,920	40,000	1.40	1.61
January	277,000	47,400	145,000	5.07	5.84
February	76,400	21,400	50,100	1.75	1.82
March	96,500	20,800	42,000	1.47	1.70
April	40,500	16,100	29,800	1.04	1.16
May	22,900	8,610	14,000	.490	.56
June	8,350	5,250	6,050	.212	.24
July	5,850	3,000	4,110	.144	.17
August	4,060	2,720	3,280	.115	.13
September	7,150	2,660	3,670	.128	.14
The year	277,000	2,660	29,900	1.05	14.21

TIPPECANOE RIVER AT PULASKI, IND.

LOCATION.—Chain gage in sec. 9, T. 29 N., R. 2. W, at highway bridge at Pulaski.
DRAINAGE AREA.—1,100 square miles.
RECORDS AVAILABLE.—October, 1927, to September, 1930.
EXTREMES.—Maximum discharge during year, about 7,250 second-feet Jan. 20 (gage height, 9.72 feet, affected by ice); minimum, 232 second-feet Sept. 22 (gage height, 1.16 feet).
1927–1930: Maximum discharge, 7,410 second-feet Dec. 3, 1927 (gage height, 8.23 feet); minimum, that of Sept. 22, 1930.
REMARKS.—Records good except those for low water, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	280	565	750	[a] 3,530	[a] 3,600	2,330	1,490	1,570	665	420	330	258
2	280	540	810	[a] 4,480		2,150	1,490	1,570	615	420	330	295
3	280	640	930	5,440		1,890	1,410	1,570	590	402	330	289
4	280	668	930	5,870	3,390	1,730	1,270	1,490	568	402	312	289
5	280	615	930	6,620	3,750	1,650	1,130	1,340	568	420	312	283
6	280	590	870	6,170	3,510	1,570	1,130	1,410	568	402	330	295
7	265	540	810	6,170	2,830	1,570	1,060	1,340	615	402	460	286
8	250	515	750	6,020	2,430	1,490	990	1,270	640	385	502	274
9	235	490	810	6,470	2,240	1,410	920	1,270	665	385	480	265
10	250	490	930	6,020	2,150	1,270	860	1,200	640	368	460	260
11	280	540	810	5,720	1,970	1,200	860	1,130	590	368	440	255
12	280	668	695	5,870	1,890	1,200	800	1,130	568	368	460	245
13	312	810	668	5,580	1,890	1,200	740	1,060	545	368	420	250
14	312	930	810	6,620	2,060	1,130	715	1,130	522	350	382	245
15	312	1,000	1,000	6,930	2,060	920	800	1,130	522	350	348	248
16	312	930	930	6,470	1,730	860	1,060	1,130	522	350	330	252
17	295	870	1,150	6,620	1,270	990	2,630	1,130	500	335	330	260
18	280	810	1,390	5,440	1,200	920	3,050	1,060	545	335	312	252
19	280	750	1,480		1,340	1,200	2,830	1,410	522	335	312	248
20	280	810	3,380		1,570	1,270	2,530	1,570	500	320	312	245
21	280	810	3,260	[a] 6,000	1,730	1,200	2,630	1,650	500	320	295	245
22	295	722	3,860		1,890	990	2,430	1,270	480	335	292	236
23	330	668	3,860		2,060	920	2,330	990	480	335	271	240
24	425	615	3,990		2,240	1,060	1,970	920	460	320	262	260
25	590	565	3,990		2,730	1,130	1,730	920	440	320	265	262
26	668	540	3,860	[a] 4,000	2,630	1,060	1,570	860	480	320	262	268
27	695	515	3,990		2,630	1,060	1,410	800	460	368	255	260
28	640	515	3,740		2,530	1,130	1,490	740	460	350	252	252
29	590	490	3,260			1,270	1,650	715	420	350	240	245
30	565	615	2,680			1,490	1,730	715	440	335	258	240
31	515		2,570			1,570		690		350	255	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	695	235	362	0.329	0.38
November	1,000	490	661	.601	.67
December	3,990	668	1,930	1.75	2.02
January			5,550	5.05	5.82
February		1,200	2,380	2.16	2.25
March	2,330	860	1,320	1.20	1.38
April	3,050	715	1,560	1.42	1.58
May	1,570	690	1,170	1.06	1.22
June	665	420	536	.487	.54
July	420	320	361	.328	.38
August	502	240	335	.305	.35
September	295	236	260	.236	.26
The year		235	1,370	1.25	16.85

[a] Estimated.

VERMILION RIVER NEAR DANVILLE, ILL.

LOCATION.—Chain gage in sec. 22, T. 19 N., R. 11 W., at Chicago & Eastern Illinois Railway bridge 2 miles southeast of Danville. Zero of gage 503.99 feet above mean sea level.

DRAINAGE AREA.—1,280 square miles.

RECORDS AVAILABLE.—November, 1914, to August, 1921; June, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year not determined; minimum, 2 second-feet Aug. 10 (gage height, 1.70 feet).

1914–1921, 1928–1930: Maximum discharge, 12,800 second-feet Apr. 21, 1920 (gage height, 19.7 feet); minimum 2.0 second-feet Oct. 14, 1920, Aug. 10, 1930.

REMARKS.—Records good except those below 12 second-feet, which are fair, and those for Oct. 1 to Dec. 31, which are poor. Flow regulated at times by storage reservoir on North Fork of Vermilion River 4 miles above gage.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	139	105	-------	1,870	1,340	278	148	9.6	19
2	60	139	91	-------	1,750	1,230	260	107	6.0	50
3	66	172	80	-------	1,340	1,060	243	103	4.2	52
4	68	164	91	-------	1,180	1,010	226	77	35	42
5	72	139	80	1,630	955	955	243	73	16	35
6	60	172	99	1,450	1,120	900	226	70	25	23
7	61	107	134	1,340	850	850	226	73	23	11
8	58	99	161	1,180	700	800	210	77	27	22
9	73	87	73	1,060	700	750	192	95	21	24
10	78	75	158	1,010	625	700	192	164	2.0	60
11	91	82	169	1,010	625	700	180	164	40	13
12	50	66	226	900	600	575	164	87	19	10
13	85	62	750	850	500	525	164	77	27	18
14	103	61	1,400	800	575	550	153	67	17	20
15	87	58	1,510	750	850	550	164	52	7.2	60
16	78	66	1,570	750	3,410	575	148	58	3.4	43
17	61	189	1,630	750	4,900	500	192	58	7.2	45
18	52	175	2,150	850	5,060	500	180	58	61	43
19	51	166	1,940	900	3,700	600	153	45	11	30
20	46	164	1,510	900	3,130	1,180	129	7.2	12	22
21	64	139	1,450	800	5,380	1,180	129	42	7.2	9.0
22	67	114	1,450	750	5,560	900	116	61	45	60
23	93	64	1,450	700	4,820	800	107	64	33	46
24	169	148	1,400	750	3,060	650	103	55	3.4	41
25	105	91	1,400	850	2,360	550	103	38	6.0	48
26	109	151	1,400	700	1,940	450	103	38	8.4	41
27	99	139	1,340	550	1,690	450	99	8.4	6.0	68
28	95	89	1,340	700	1,690	428	87	42	6.0	34
29	93	80	1,340	900	[a] 1,570	382	87	45	6.0	62
30	84	91	1,280	1,810	1,450	360	103	42	55	20
31	111	-------	1,280	1,690	-------	318	-------	9.6	6.0	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	169	46	78.8	0.062	0.07
November	189	58	116	.091	.10
December	2,150	73	937	.732	.84
March 5–31	1,810	550	975	.762	.77
April	5,560	500	2,130	1.66	1.85
May	1,340	318	720	.562	.65
June	278	87	165	.129	.14
July	164	7.2	67.9	.053	.06
August	61	2.0	17.9	.014	.02
September	68	9.0	35.7	.028	.03

[a] Estimated.

NOTE.—No record Jan. 1 to Mar. 4.

EMBARRASS RIVER AT STE. MARIE, ILL.

LOCATION.—Chain gage in sec. 30, T. 6 N., R. 14 W., at highway bridge at Ste. Marie. Zero of gage 447.14 feet above mean sea level.

DRAINAGE AREA.—1,540 square miles.

RECORDS AVAILABLE.—October, 1909, to December, 1912; August, 1914, to September, 1930.

EXTREMES.—Maximum discharge during year, 17,400 second-feet Jan. 14 (gage height, 22.22 feet); minimum, 15 second-feet Sept. 5, 6, 13 (gage height, 0.79 foot).

1909–1912, 1914–1930: Maximum discharge, 39,000 second-feet May 30, 1927 (gage height, 24.3 feet); minimum, 1.0 second-foot Sept. 5–9, Oct. 19, 1914 (gage height, 1.1 feet).

REMARKS.—Records good except those estimated because of ice, Nov. 29 to Dec. 9, Jan. 17 to Feb. 5, which are poor.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	88		4,540		5,070	1,540	720	159	197	25	18
2	59	710		6,740		4,710	1,820	692	159	227	22	21
3	57	300		7,480	1,250	3,360	1,400	608	150	168	22	18
4	55	172		7,820		2,420	1,160	555	150	159	25	18
5	57	146	95	7,400		1,960	832	555	141	150	25	15
6	55	133		6,320	2,860	1,720	832	580	141	132	28	15
7	55	115		6,950	2,620	1,510	748	505	132	115	22	24
8	55	104		7,900	2,460	1,340	664	455	124	105	25	21
9	55	93		8,940	2,420	1,200	608	431	124	98	22	18
10	55	93	225	9,260	2,070	1,070	580	407	115	94	19	18
11	98	98	186	8,240	1,860	980	555	383	124	85	22	18
12	127	165	194	8,240	2,460	920	505	359	124	81	22	18
13	98	1,620	300	9,490	4,120	860	480	359	114	78	25	15
14	83	620	740	15,900	2,420	804	480	335	106	71	22	312
15	83	320	650	14,500	1,820	748	455	312	103	64	28	2,460
16	73	242	710	9,490	1,620	692	480	312	114	61	28	312
17	66	194	4,080		1,440	664	608	312	114	58	74	168
18	62	179	6,950		1,370	664	1,040	312	124	54	51	114
19	60	158	7,900		1,340	664	832	312	103	48	38	83
20	62	146	8,670		1,260	636	832	290	100	48	42	63
21	62	133	6,880		1,130	636	890	269	103	45	45	50
22	62	127	3,680		1,070	580	890	269	110	42	35	40
23	68	115	2,900		1,760	555	776	248	103	42	28	40
24	73	110	2,500	2,960	2,460	530	832	238	96	38	25	47
25	68	104	2,100		2,500	580	860	227	93	42	25	40
26	65	104	1,840		6,740	636	776	217	168	48	22	37
27	61	104	2,140		7,090	664	720	207	530	32	18	30
28	67	98	2,660		6,950	664	664	197	407	28	21	27
29	67	90	2,460		-------	748	664	187	290	28	21	27
30	68		2,380		-------	1,160	720	178	238	25	21	24
31	70	-------	3,220		-------	1,300	-------	168	-------	25	18	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	127	55	67.9	0.044	0.05
November	1,620	88	226	.147	.16
December	8,670	----------	2,070	1.34	1.54
January	15,900	----------	5,920	3.84	4.43
February	7,090	----------	2,430	1.58	1.64
March	5,070	530	1,290	.838	.97
April	1,820	455	808	.525	.59
May	720	168	361	.234	.27
June	530	93	155	.101	.11
July	227	25	80.3	.052	.06
August	74	18	27.9	.018	.02
September	2,460	15	137	.089	.10
The year	15,900	15	1,130	.734	9.94

EMBARRASS RIVER AT LAWRENCEVILLE, ILL.

LOCATION.—Chain gage in SW. ¼ sec. 5, T. 3 N., R. 11 W., at highway bridge on United States Route 50, 1 mile east of Lawrenceville, Lawrence County, and 11 miles above mouth of river. Zero of gage 399.20 feet above mean sea level.

DRAINAGE AREA.—2,260 square miles.

RECORDS AVAILABLE.—March to September, 1930.

EXTREMES.—Maximum discharge during period of record, 3,570 second-feet Apr. 3 (gage height, 13.54 feet); minimum, 35 second-feet Sept. 5, 6 (gage height, 2.36 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1930

Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	1,530	812	219	300	46	37
2	-------	2,720	784	210	264	44	43
3	-------	3,570	784	192	210	42	42
4	-------	2,800	709	183	201	41	37
5	-------	1,910	684	183	192	40	35
6	-------	1,460	634	183	183	45	35
7	-------	1,170	609	174	165	43	39
8	-------	952	609	165	147	42	44
9	-------	896	584	156	138	45	42
10	-------	784	534	147	120	42	41
11	-------	759	659	147	116	43	38
12	-------	709	484	156	113	42	36
13	-------	659	434	147	102	40	36
14	1,170	634	434	147	92	63	38
15	1,170	634	434	147	82	51	434
16	1,010	634	409	138	82	49	2,560
17	924	609	384	147	79	45	1,800
18	924	709	362	156	76	56	659
19	868	1,010	362	147	95	97	409
20	759	1,130	384	147	82	100	228
21	759	1,100	384	147	73	63	147
22	896	1,130	340	156	70	56	102
23	896	1,200	340	156	65	54	88
24	734	1,200	320	147	62	49	79
25	784	1,170	300	147	62	47	92
26	784	1,170	282	156	62	43	99
27	1,290	1,070	264	165	60	43	[a] 60
28	1,200	896	264	165	60	42	[a] 57
29	1,100	812	228	534	57	42	[a] 55
30	1,100	759	228	409	52	40	[a] 52
31	1,390	-------	228	-------	48	38	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
March 14-31	1,390	734	987	0.437	0.29
April	3,570	609	1,190	.527	.59
May	812	228	460	.204	.24
June	534	138	182	.081	.09
July	300	48	113	.050	.06
August	100	38	49.5	.022	.03
September	2,560	35	249	.110	.12

[a] Estimated.

WEST FORK OF WHITE RIVER NEAR NOBLESVILLE, IND.

LOCATION.—Chain gage in sec. 4, T. 19 N., R. 5 E., at highway bridge 1 mile west of Strawtown and 7 miles northeast of Noblesville, Hamilton County.
DRAINAGE AREA.—800 square miles.
RECORDS AVAILABLE.—July to September, 1922; October, 1927, to September, 1930. May, 1915, to June, 1922, at gage 2 miles downstream.
EXTREMES.—Maximum discharge during year, 15,300 second-feet Jan. 14 (gage height, 14.57 feet); minimum, 90 second-feet Aug. 15, 16, 29; minimum stage, 4.42 feet Oct. 23, 24.

1915–1922, 1927–1930: Maximum discharge 18,700 second-feet Feb. 1, 1916 (gage height, 15.0 feet); minimum, 85 second-feet Aug. 15, 1918 (gage-height, 1.08 feet).

State of Indiana Department of Conservation reports a stage of 16.05 feet (present datum) Mar. 21, 1927 (discharge, 20,800 second-feet).
REMARKS—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		268	344	4,110	1,300	2,270	980	610	212	191	115	248
2		1,060	415	8,150	910	1,640	910	550	205	184	115	248
3		2,540	390	8,150	580	1,140	910	520	205	177	110	205
4		1,300	390	8,150	980	1,060	805	520	198	170	105	177
5	140	875	390	3,400	980	980	770	580	191	164	105	158
6		640	390	3,000	1,020	910	840	520	205	184	100	130
7		492	390	2,810	910	875	805	465	226	198	152	120
8	135	390	610	9,650	770	910	705	415	226	164	170	120
9		365	580	13,900	770	1,060	580	390	233	158	158	120
10		465	550	15,000	705	1,020	520	415	205	152	125	110
11	140	640	465	11,700	705	840	440	415	198	140	110	105
12		1,020	705	5,890	738	738	440	465	191	135	95	95
13		875	2,360	13,900	2,540	738	415	440	184	140	100	95
14	140	945	4,680	15,300	2,000	705	465	415	177	146	95	280
15	135	1,020	3,200	13,200	1,380	640	550	415	184	140	90	492
16	152	980	2,180	8,900	1,140	550	580	415	219	135	90	280
17	146	705	3,500	2,720	910	520	2,180	390	226	130	110	233
18	135	610	4,110	2,450	840	580	4,110	365	240	130	205	177
19	125	520	5,890	1,640	875	705	3,200	344	248	125	212	120
20	130	465	4,560	2,450	910	640	2,720	320	256	125	212	95
21	205	390	3,300	1,220	840	580	1,640	280	248	120	205	105
22	248	344	1,640	1,820	875	520	1,640	280	240	125	158	95
23	95	344	1,300	2,450	2,000	492	1,220	272	256	130	146	212
24	95	300	1,140	2,540	4,920	465	1,060	264	465	130	110	344
25	280	300	980	2,810	5,580	910	980	272	1,060	120	95	520
26	320	300	875	1,910	6,910	1,550	910	264	440	115	100	465
27	233	300	910	1,820	7,700	1,300	672	248	344	164	105	390
28	219	320	1,060	1,730	2,720	1,060	672	240	280	233	100	248
29	219	344	1,300	1,300	-------	980	640	233	264	140	90	177
30	212	344	1,640	1,220	-------	1,060	610	219	226	135	95	105
31	212	-------	2,630	1,140	-------	980	-------	212	-------	125	100	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	320	95	165	0.20	0.24
November	2,540	268	649	.811	.90
December	5,890	344	1,710	2.14	2.47
January	15,300	1,140	5,630	7.04	8.12
February	7,700	580	1,880	2.35	2.45
March	2,270	465	917	1.15	1.33
April	4,110	415	1,100	1.38	1.54
May	610	212	379	.474	.55
June	1,060	177	268	.33	.37
July	233	115	149	.186	.21
August	212	90	125	.156	.18
September	520	95	209	.261	.29
The year	15,300	90	1,100	1.38	18.65

WEST FORK OF WHITE RIVER AT SPENCER, IND.

LOCATION.—Chain gage in sec. 29, T. 10 N., R. 3 W., at highway bridge at Spencer, Owen County.
DRAINAGE AREA.—2,910 square miles.
RECORDS AVAILABLE.—October, 1927, to September, 1930.
EXTREMES.—Maximum discharge during year, 41,000 second-feet Jan. 15 (gage height, 22.3 feet); minimum, 260 second-feet Aug. 27 to Sept. 1 (gage height, 1.80 feet).
1927–1930: Maximum and minimum discharge occurred in 1930.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	368	1,730	555	6,290	3,220	17,000	5,810	3,120	1,060	860	460	260
2	368	1,910	555	10,600	3,020	12,800	6,170	3,320	1,020	860	430	280
3	395	2,650	520	14,800	3,020	7,900	5,810	2,720	1,020	782	430	300
4	395	2,850	520	19,700	3,520	6,290	4,700	3,320	1,020	745	400	345
5	395	2,750	665	19,500	4,260	5,580	4,370	3,020	980	708	372	345
6	395	2,550	980	14,700	4,920	5,030	3,620	2,920	1,060	708	345	400
7	368	2,000	940	9,070	4,810	4,590	2,820	2,720	1,140	745	300	460
8	368	1,730	1,300	18,600	4,480	4,370	2,820	2,440	1,060	940	300	460
9	340	1,220	1,380	24,400	4,260	4,150	2,620	2,080	1,060	820	300	400
10	340	980	1,470	31,600	4,040	3,820	2,440	1,810	1,020	745	300	400
11	340	1,220	1,560	36,800	3,820	3,620	2,260	1,810	980	708	300	460
12	395	1,470	1,640	30,800	5,690	3,420	2,170	1,720	900	708	300	460
13	520	1,820	2,270	35,000	11,500	3,120	2,080	1,810	900	632	300	492
14	455	2,180	2,950	38,600	10,900	3,020	1,990	1,720	900	595	322	492
15	425	2,750	8,030	41,000	9,760	3,020	1,900	1,720	900	560	322	595
16	395	2,360	9,620	39,500	9,340	2,620	1,900	1,720	860	492	345	745
17	395	2,000	9,900	35,900	8,550	2,530	2,440	1,640	820	460	345	595
18	368	2,000	15,400	29,200	7,510	2,530	6,290	1,560	900	492	345	560
19	368	1,820	19,500	23,200	6,050	2,440	7,380	1,720	900	460	322	460
20	368	1,640	21,200	15,400	5,470	2,260	9,070	2,260	860	430	322	430
21	395	1,470	19,200	7,510	4,480	2,260	9,620	2,440	900	400	300	345
22	425	1,300	12,600	6,050	4,040	2,260	8,550	2,080	860	460	300	322
23	520	1,300	8,810	5,360	3,930	2,170	6,770	1,810	900	430	300	300
24	702	1,220	6,770	4,920	4,040	2,170	6,050	1,380	900	430	300	300
25	820	980	4,650	4,700	4,480	2,820	5,140	1,380	980	430	280	345
26	740	1,300	4,430	4,480	11,600	3,620	4,700	1,300	1,720	430	280	345
27	520	900	4,210	4,260	16,200	3,820	2,820	1,300	1,900	460	260	400
28	520	820	5,810	4,040	20,200	4,810	4,370	1,220	1,560	430	260	400
29	555	665	4,980	3,820	-------	4,920	3,820	1,220	1,060	430	260	400
30	665	628	5,090	3,620	-------	5,140	3,620	1,220	980	400	260	372
31	1,140	-------	5,450	3,420	-------	5,580	-------	1,140	-------	400	260	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,140	340	476	0.164	0.19
November	2,850	628	1,670	.574	.64
December	21,200	520	5,900	2.03	2.34
January	41,000	3,420	17,600	6.05	6.98
February	20,200	3,020	6,680	2.30	2.40
March	17,000	2,170	4,510	1.55	1.79
April	9,620	1,900	4,470	1.54	1.72
May	3,320	1,140	1,990	.684	.79
June	1,900	820	1,040	.357	.40
July	940	400	585	.201	.23
August	460	260	320	.110	.13
September	745	260	416	.143	.16
The year	41,000	260	3,810	1.31	17.77

WEST FORK OF WHITE RIVER AT NEWBERRY, IND.

LOCATION.—Water stage recorder in sec. 25, T. 6 N., R. 6 W., at highway bridge at Newberry, Greene County.
DRAINAGE AREA.—4,670 square miles.
RECORDS AVAILABLE.—September, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 60,700 second-feet Jan. 15 (gage height, 23.1 feet), minimum, 350 second-feet Aug. 30 (gage height, 1.11 feet).
1928–1930: Maximum and minimum discharge occurred in 1930.
Flood of January, 1913, reached stage of 26.2 feet.
REMARKS.—Records good except those estimated Dec. 21 to Jan. 27, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	638	1,100	2,830	8,380	4,340	25,300	6,400	4,120	1,360	1,260	527	370
2	615	2,480	2,660	12,600	4,230	22,400	10,900	4,120	1,310	1,160	534	401
3	615	4,060	2,450	19,400	4,450	15,400	10,000	3,680	1,260	1,060	507	488
4	608	3,600	2,250	23,500	5,290	9,250	7,570	3,460	1,260	964	474	455
5	600	3,820	2,150	25,900	6,920	7,570	5,770	3,130	1,220	896	455	455
6	592	3,270	2,150	24,700	7,180	6,660	4,930	3,030	1,360	854	449	481
7	585	2,560	2,250	22,900	7,310	6,140	4,450	3,030	1,260	871	468	488
8	578	2,100	2,610	22,900	6,660	5,770	4,010	2,930	1,260	1,220	468	468
9	578	1,800	2,610	30,700	6,140	5,530	3,680	2,830	1,260	1,310	443	443
10	570	1,660	2,720	40,600	5,770	5,050	3,570	2,630	1,220	1,220	431	437
11	585	1,900	2,560	48,400	5,290	4,810	3,350	2,480	1,220	1,070	413	425
12	600	2,300	2,610	50,900	6,300	4,690	3,130	2,330	1,170	973	407	407
13	668	2,720	3,050	53,000	14,800	4,450	3,030	2,330	1,150	861	401	401
14	705	3,270	4,300	54,400	17,400	4,120	2,930	2,330	1,110	812	443	413
15	675	3,820	7,540	57,200	14,700	3,900	2,930	2,230	1,080	772	449	635
16	645	3,600	10,000	59,300	11,100	3,680	2,830	2,230	1,260	732	437	888
17	622	3,160	12,400	57,200	8,400	3,570	3,130	2,130	1,260	695	449	862
18	600	2,720	20,100	52,300	7,050	3,570	5,610	2,080	1,310	672	437	788
19	592	2,500	24,700	46,000	6,270	3,570	7,980	2,130	1,220	658	413	748
20	585	2,300	26,600	35,300	5,770	3,570	8,820	2,480	1,220	642	407	695
21	622	2,100	26,600	21,100	5,410	3,460	8,820	2,630	1,130	620	407	605
22	862	1,900	21,600	10,900	5,170	3,460	7,980	2,330	1,090	605	401	548
23	1,430	1,700	14,100	8,120	5,410	3,240	8,400	2,030	1,110	576	395	507
24	1,800	1,560	10,200	6,920	6,400	3,130	7,440	1,930	1,040	569	390	488
25	1,520	1,480	8,520	6,140	6,640	4,140	6,270	1,790	999	562	395	474
26	1,340	1,380	7,260	5,770	15,700	6,400	5,290	1,740	1,020	548	390	455
27	1,200	1,380	7,120	5,530	20,400	7,570	4,690	1,640	1,910	527	370	437
28	1,120	1,340	7,680	5,530	23,500	7,050	4,230	1,600	1,930	520	365	468
29	1,010	1,300	7,680	5,170	-------	6,530	4,010	1,550	1,640	507	360	500
30	942	2,070	7,680	4,930	-------	6,530	4,010	1,460	1,460	481	355	548
31	926	-------	7,680	4,870	-------	6,530	-------	1,410	-------	500	360	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,800	570	807	0.173	0.20
November	4,060	1,100	2,360	.505	.56
December	26,600	2,150	8,540	1.83	2.11
January	59,300	4,570	26,800	5.74	6.62
February	23,500	4,230	8,710	1.87	1.95
March	25,300	3,130	6,680	1.43	1.65
April	10,900	2,830	5,540	1.19	1.33
May	4,120	1,410	2,450	.525	.61
June	1,930	999	1,270	.272	.30
July	1,310	481	797	.171	.20
August	534	355	426	.091	.10
September	888	370	526	.113	.13
The year	59,300	355	5,410	1.16	15.76

WHITE RIVER AT HAZLETON, IND.

LOCATION.—Chain gage in sec. 24, T. 1 N., R. 11 E., at highway bridge at Hazleton, Gibson County. Zero of gage 383.63 feet above mean sea level.
DRAINAGE AREA.—11,200 square miles.
RECORDS AVAILABLE.—October, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 139,000 second-feet Jan. 17 (gage height, 30.2 feet); minimum, 710 second-feet Aug. 31 (gage height, 1.84 feet).
1928–1930: Maximum and minimum discharge occurred in 1930.
REMARKS.—Records good except those above 60,000 second-feet, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,790	3,820	3,370	20,400	11,400	35,800	12,600	7,150	2,890	2,480	1,010	860
2	1,790	4,800	3,370	21,400	11,600	38,800	12,600	7,150	2,750	2,220	1,010	860
3	1,550	6,030	3,080	24,400	10,300	41,700	14,000	7,150	2,750	1,960	960	910
4	1,550	7,130	3,080	29,800	12,600	43,600	19,600	6,970	2,750	1,840	1,160	860
5	1,550	8,460	3,220	34,000	18,600	44,400	22,100	6,790	2,750	1,960	1,110	860
6	1,380	8,650	3,370	36,400	21,100	38,900	22,600	6,250	2,480	1,960	1,110	1,160
7	1,440	8,270	3,370	38,900	23,200	27,400	19,600	5,910	2,610	1,840	1,060	1,010
8	1,550	7,510	3,820	42,800	23,200	18,600	16,200	5,570	2,610	1,720	960	1,110
9	1,550	6,390	4,460	50,000	23,500	15,700	13,000	5,570	2,480	1,720	1,110	1,010
10	1,550	5,670	4,970	56,600	21,400	15,300	11,000	5,570	2,480	1,720	1,060	910
11	1,550	5,310	4,800	59,000	19,600	16,000	9,900	5,230	2,480	1,840	1,060	960
12	1,440	4,970	4,460	69,800	21,600	16,400	9,140	4,890	2,350	1,840	1,010	960
13	1,440	4,970	4,300	84,500	24,700	16,200	9,900	4,560	2,350	1,720	1,010	960
14	1,440	4,970	4,970	98,000	30,100	14,700	7,690	4,560	2,350	1,490	1,060	910
15	1,440	5,310	6,210	119,000	33,400	12,800	7,330	4,400	2,480	1,490	1,110	1,380
16	1,440	7,130	8,650	134,000	36,800	11,600	6,970	4,240	2,480	1,490	1,060	1,720
17	1,440	7,890	15,500	132,000	32,800	10,700	6,790	4,400	2,480	1,490	1,160	1,490
18	1,550	9,410	22,100	113,000	31,000	10,100	6,790	4,560	2,480	1,490	1,380	2,350
19	1,550	11,400	29,800	106,000	29,200	9,520	7,150	4,560	2,350	1,490	1,380	1,960
20	1,550	10,600	34,700	99,300	28,000	9,140	9,140	4,560	2,350	1,490	1,110	1,720
21	1,670	9,800	36,800	94,400	19,600	8,770	11,400	4,080	2,350	1,380	860	1,720
22	1,670	7,890	38,900	87,600	17,300	8,590	12,200	4,240	2,350	1,270	960	1,600
23	2,150	6,750	40,300	81,500	16,000	8,410	12,400	4,240	2,350	1,380	860	1,600
24	2,940	5,850	42,800	74,000	14,200	8,410	11,800	4,080	2,220	1,380	960	1,380
25	3,080	5,310	42,400	62,300	15,100	8,410	11,800	3,920	2,090	1,160	960	1,490
26	3,080	4,630	36,800	41,700	18,900	8,770	11,000	3,920	1,840	1,270	960	1,220
27	3,080	4,300	31,900	26,200	27,400	10,700	10,300	3,620	2,090	1,270	860	1,110
28	3,080	3,980	28,600	19,600	32,200	12,200	9,140	3,620	2,090	1,220	860	1,110
29	3,220	3,670	25,000	16,800	------	13,400	8,230	3,320	2,220	1,060	910	1,110
30	3,370	3,520	21,100	14,900	------	13,400	7,330	3,170	2,350	1,110	860	1,060
31	3,080	------	19,600	13,600	------	13,000	------	3,030	------	1,060	710	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,370	1,380	1,970	0.176	0.20
November	11,400	3,520	6,480	.579	.65
December	42,800	3,080	17,300	1.54	1.78
January	134,000	13,600	61,400	5.48	6.32
February	36,800	10,300	22,300	1.99	2.07
March	44,400	8,410	18,100	1.62	1.87
April	22,600	6,790	11,700	1.04	1.16
May	7,150	3,030	4,880	.436	.50
June	2,890	1,840	2,420	.216	.24
July	2,480	1,060	1,570	.140	.16
August	1,380	710	1,020	.091	.10
September	2,350	860	1,250	.112	.12
The year	134,000	710	12,500	1.12	15.17

EAST FORK OF WHITE RIVER AT SEYMOUR, IND.

LOCATION.—Chain gage in sec. 6, T. 6 N., R. 6 E., at highway bridge 1 mile north of Seymour.

DRAINAGE AREA.—2,380 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 28,000 second-feet Jan. 10 (gage height, 11.6 feet); minimum, 195 second-feet Sept. 5 (gage height, 1.99 feet).

1927–1930: Maximum and minimum discharge occurred in 1930.

REMARKS.—Records good except those for low water, which are poor. Stages at low water affected by operation of turbines at dam 500 feet below gage.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	450	763	950	4,230	1,910	8,500	1,910	1,170	666	375	230	206
2	430	1,420	950	6,450	2,020	6,450	6,170	1,170	619	357	230	218
3	450	1,910	950	12,800	2,020	4,230	4,230	1,100	575	309	230	218
4	450	3,420	950	13,100	4,770	3,690	3,690	1,100	510	254	218	206
5	450	3,150	950	10,900	5,050	3,150	3,150	1,020	490	230	218	195
6	450	2,380	1,020	6,170	4,500	3,020	2,630	1,020	470	254	218	218
7	450	1,700	1,170	4,770	3,960	2,630	2,260	1,020	450	323	411	218
8	450	1,600	1,910	18,200	3,420	4,770	2,140	950	430	375	393	206
9	430	1,420	1,910	24,800	3,150	4,230	1,910	950	430	375	254	206
10	430	1,330	1,910	28,000	2,890	3,420	1,700	950	411	323	367	306
11	430	1,250	1,800	27,200	2,630	3,150	1,700	880	411	281	295	218
12	430	1,330	1,700	21,600	2,380	2,890	1,600	1,020	393	254	295	206
13	411	1,700	1,700	20,900	11,500	2,630	1,510	1,330	393	267	553	218
14	411	2,140	4,230	24,400	13,400	2,380	1,420	1,910	411	281	281	218
15	411	2,890	4,500	26,500	11,800	2,260	1,330	1,510	411	281	267	230
16	411	3,420	4,770	24,800	7,900	2,140	1,600	1,250	738	267	267	302
17	411	2,630	4,770	20,300	4,500	1,910	1,510	1,170	841	267	274	420
18	411	2,140	6,450	12,400	3,960	1,910	1,420	1,100	597	254	288	402
19	430	1,910	16,900	8,200	3,420	1,910	1,330	1,020	575	242	274	384
20	450	1,700	17,200	4,770	3,150	1,800	1,330	1,100	531	242	274	330
21	450	1,600	12,400	3,960	2,890	1,800	1,700	1,100	490	254	260	348
22	490	1,510	8,800	3,690	2,630	1,800	1,700	1,170	470	254	274	330
23	1,700	1,330	5,330	2,890	2,380	1,600	1,700	1,100	450	242	260	302
24	1,510	1,250	4,500	3,150	2,890	1,510	1,600	1,100	470	242	260	274
25	1,330	1,170	3,960	2,890	2,890	1,910	1,510	1,100	450	242	248	260
26	1,250	1,170	3,420	2,630	6,740	2,630	1,420	867	450	230	248	248
27	1,510	1,100	3,420	2,380	11,800	3,280	1,330	789	450	230	236	248
28	1,420	1,100	3,960	2,260	11,500	2,380	1,330	763	430	242	224	236
29	1,330	1,020	3,960	2,140	-------	2,140	1,250	738	411	242	212	236
30	1,020	950	4,230	2,020	-------	2,140	1,170	714	393	242	200	236
31	867	-------	3,960	1,910	-------	2,020	-------	690	-------	230	206	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,700	411	694	0.292	0.34
November	3,420	763	1,750	.735	.82
December	17,200	950	4,340	1.82	2.10
January	28,000	1,910	11,300	4.75	5.48
February	13,400	1,910	5,070	2.13	2.22
March	8,500	1,510	2,910	1.22	1.41
April	6,170	1,170	1,980	.832	.93
May	1,910	690	1,060	.445	.51
June	841	393	494	.208	.23
July	375	230	273	.115	.13
August	553	200	270	.113	.13
September	420	195	258	.108	.12
The year	28,000	195	2,530	1.06	14.42

EAST FORK OF WHITE RIVER AT SHOALS, IND.

LOCATION.—Water-stage recorder until Dec. 10, 1929, and chain gage thereafter, in sec. 30, T. 3 N., R. 3 W., at highway bridge at Shoals. Zero of gages 442.97 feet above mean sea level.

DRAINAGE AREA.—4,900 square miles.

RECORDS AVAILABLE.—June, 1903, to July, 1906; October, 1918, to September, 1916; October, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, 68,100 second-feet Jan. 15 (gage height, 32.6 feet); minimum, 170 second-feet July 28 (gage height, 1.70 feet). 1903–1906, 1908–1916, 1926–1930: Maximum stage, 42.2 feet Mar. 28, 1913 (discharge not determined); minimum discharge, 128 second-feet on various dates.

REMARKS.—Records good. Recorder washed out in January, 1930.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	595	1,380	1,240	8,100	3,820	19,800	4,450	2,160	890	405	331	266
2	595	3,620	1,180	8,500	3,820	20,000	6,300	2,430	890	650	331	275
3	495	4,500	1,000	12,800	3,610	18,600	9,650	2,250	790	405	320	405
4	490	5,500	1,120	14,400	4,030	14,900	12,900	2,070	790	650	204	358
5	560	6,500	948	16,400	7,500	9,840	13,100	1,820	740	358	342	336
6	337	6,300	981	17,800	11,000	6,700	10,200	1,820	790	535	331	326
7	595	5,100	1,440	18,700	13,100	5,900	6,900	1,820	790	353	336	266
8	435	3,900	1,900	23,200	12,800	5,700	5,500	1,740	740	610	320	176
9	595	2,900	2,320	26,700	11,300	6,700	4,450	1,660	650	370	320	435
10	630	2,320	2,500	30,600	9,460	8,890	4,030	1,590	695	364	305	336
11	403	2,150	3,100	34,600	7,100	9,270	3,610	1,520	790	468	405	326
12	460	2,500	3,300	38,100	7,100	7,900	3,210	1,520	790	500	364	331
13	430	2,500	2,700	50,800	14,500	6,300	3,010	1,370	790	375	331	326
14	531	3,300	2,700	64,300	17,900	5,290	2,620	1,300	790	500	364	405
15	422	5,500	3,500	68,100	18,400	4,660	2,620	1,590	650	405	342	650
16	569	7,300	4,900	63,100	21,300	4,240	2,620	2,070	695	405	331	840
17	420	7,700	6,300	60,200	22,400	3,820	2,620	1,820	740	405	353	535
18	569	7,500	12,600	58,200	17,800	3,610	2,810	1,660	790	405	270	790
19	400	7,100	20,300	54,900	11,700	3,410	3,210	1,300	790	375	375	740
20	433	6,300	20,300	47,600	7,500	3,410	3,210	1,520	740	405	353	840
21	566	5,100	20,300	40,800	6,300	3,410	3,210	1,300	695	348	353	570
22	928	3,900	21,300	33,600	5,700	3,410	3,010	1,370	695	405	364	535
23	2,410	3,300	21,900	19,700	5,290	3,010	2,810	1,440	695	375	358	435
24	3,500	2,500	22,600	8,100	5,080	3,010	2,620	1,520	695	375	310	375
25	4,100	2,500	21,100	5,900	5,900	3,010	2,620	1,590	650	336	198	375
26	3,900	2,320	17,300	5,290	12,400	3,820	2,620	1,240	695	353	315	468
27	2,900	1,740	11,800	5,080	16,600	4,660	2,250	1,110	435	405	300	364
28	2,320	1,980	8,500	5,080	15,700	4,870	2,070	1,050	650	254	285	468
29	1,660	1,820	7,900	4,870	-------	4,870	2,160	1,110	650	364	290	364
30	1,510	1,580	8,700	4,240	-------	4,660	2,070	840	438	331	295	358
31	1,510	-------	8,500	4,030	-------	4,450	-------	940	-------	320	326	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,100	337	1,140	0.233	0.27
November	7,700	1,380	4,020	.820	.92
December	22,600	948	8,520	1.74	2.01
January	68,100	4,030	27,500	5.61	6.47
February	22,400	3,610	10,700	2.18	2.27
March	20,000	3,010	6,840	1.40	1.61
April	13,100	2,070	4,420	.902	1.01
May	2,430	840	1,570	.320	.37
June	890	435	722	.147	.16
July	650	254	413	.084	.10
August	405	198	323	.066	.08
September	840	176	442	.090	.10
The year	68,100	176	5,550	1.13	15.37

LITTLE WABASH RIVER AT WILCOX, ILL.

LOCATION.—Chain gage in SE. ¼ sec. 3, T. 2 N., R. 8 E., at highway bridge at Wilcox, one-fourth mile below mouth of Big Muddy Creek.
DRAINAGE AREA.—1,130 square miles.
RECORDS AVAILABLE.—August, 1914, to September, 1930.
EXTREMES.—Maximum discharge during year, 8,830 second-feet Jan. 14 (gage height, 23.29 feet); minimum, 0.3 second-foot Aug. 3, Sept. 1.
1914–1930: Maximum discharge (estimated), 14,000 second-feet Aug. 22, 1915; minimum, 0.3 second-foot Aug. 3, Sept. 1, 1930.
REMARKS.—Records good above and fair below 20 second-feet.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.1	45		3,910	272	4,540	896	142	25	28	1.7	0.3
2	13	171		4,190	260	4,260	1,760	130	26	31	.9	2.6
3	13	1,080		4,690	361	3,180	2,160	224	24	41	.3	2.6
4	10	774		4,770	930	1,430	1,450	169	18	42	.9	2.6
5	10	379	[a] 45	4,770	1,790	628	845	125	20	30	1.4	3.0
6	12	193		4,690	2,190	444	487	104	20	22	1.1	1.8
7	11	118		4,690	2,290	388	348	62	21	18	1.7	3.3
8	11	99	48	5,300	2,040	374	296	94	13	8.7	2.8	2.4
9	10	78	193	5,700	1,670	335	248	89	12	11	2.4	2.4
10	12	70	461	6,510	1,290	309	236	70	12	6.2	2.8	2.8
11	12	62	366	6,150	913	260	180	62	15	7.0	2.4	2.0
12	15	62	264	5,600	1,220	236	169	66	10	4.7	5.1	3.3
13	26	756	252	7,030	2,450	248	224	84	13	6.2	1.7	3.3
14	353	1,800	314	8,830	2,980	224	158	104	13	4.1	7.4	3.3
15	288	1,670	756	8,510	2,100	202	136	66	12	4.1	5.1	284
16	171	756	924	6,640	1,160	191	136	56	29	3.5	3.3	2,930
17	86	327	1,000	5,920	612	180	169	57	12	3.5	15	3,590
18	56	216	3,070	5,400	628	180	532	48	28	2.2	3.0	2,570
19	38	171	4,120	4,850	502	169	660	53	84	3.0	2.6	1,000
20	27	138	6,270	4,330	580	169	517	125	36	2.2	5.4	180
21	25	113	5,920	3,180	548	169	322	202	28	2.6	2.2	109
22	32	94	5,600	1,760	458	158	248	75	20	2.2	5.4	51
23	33	86	4,850	1,110	580	142	236	66	29	2.2	9.6	35
24	21	66	4,120	828	1,890	136	202	49	11	2.2	13	48
25	37	52	2,380	692	2,610	191	169	44	5.1	2.6	11	36
26	45	59	1,340	564	4,050	224	142	57	29	2.2	3.5	66
27	56	52	1,120	487	4,610	322	125	34	15	2.6	5.4	120
28	59	52	1,620	444	4,400	402	120	34	13	1.4	4.7	66
29	56	45	2,200	416	-------	444	120	33	12	2.0	2.6	45
30	45	[a] 45	2,470	374	-------	612	120	26	13	2.4	5.4	8.5
31	34	-------	2,620	296	-------	879	-------	26	-------	1.4	2.2	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	353	9.1	52.5	0.046	0.05
November	1,800	45	321	.284	.32
December	6,270	45	1,700	1.51	1.74
January	8,830	296	3,960	3.51	4.05
February	4,610	260	1,620	1.43	1.49
March	4,540	136	698	.618	.71
April	2,160	120	447	.396	.44
May	224	26	83.1	.074	.09
June	84	5.1	20.6	.018	.02
July	42	1.4	9.75	.0086	.01
August	15	.3	4.26	.0038	.004
September	3,590	.3	372	.329	.37
The year	8,830	.3	772	.683	9.29

[a] Estimated.

SKILLET FORK AT WAYNE CITY, ILL.

LOCATION.—Chain gage in SW. ¼ sec. 7, T. 2 S., R. 6 E., at highway bridge 1 mile north of Wayne City. Zero of gage 408.73 feet above mean sea level.
DRAINAGE AREA.—475 square miles.
RECORDS AVAILABLE.—June, 1928, to September, 1930. August, 1908, to December, 1912; June, 1914, to September, 1921, at station 2 miles downstream.
EXTREMES.—Maximum discharge during year, 11,800 second-feet Jan. 14 (gage height, 23.75 feet); minimum, 0.1 second-foot July 21 (gage height, 3.18 feet).

1908–1912, 1914–1921, 1928–1930: Maximum discharge, 15,800 second-feet Aug. 22, 1915; no flow for 54 days in September to December, 1908.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1928–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	6.4	2.4	714	45	2,220	367	20	4.7	3.1	0.7	1.5
2	6.4	22	2.1	2,180	34	564	147	22	4.3	3.5	1.0	1.2
3	3.6	30	2.1	3,760	28	207	515	21	3.9	3.1	.7	177
4	2.6	12	2.1	3,050	36	114	958	19	3.5	2.8	.5	22
5	1.8	17	2.2	2,420	694	88	539	23	2.8	2.4	.5	12
6	1.8	30	2.8	896	1,180	64	197	23	2.4	2.4	.7	3.3
7	1.5	20	3.4	2,180	874	80	106	23	2.4	2.0	.7	4.1
8	1.5	13	3.8	4,830	1,480	147	72	18	1.7	1.7	1.0	4.1
9	1.2	9.4	13	6,800	1,850	114	42	14	1.3	1.3	1.0	3.5
10	1.5	7.0	9.8	8,300	1,760	76	30	13	1.3	1.0	.7	3.1
11	1.5	7.4	12	7,400	1,580	56	26	13	1.7	1.0	.9	2.8
12	1.6	6.2	11	6,250	2,100	45	26	10	2.8	.7	.9	2.0
13	1.8	5.9	11	8,600	2,060	42	23	9.7	2.4	.7	.9	1.7
14	2.6	6.7	45	11,100	1,500	36	21	18	2.0	.5	3.3	1.3
15	2.6	42	42	10,400	1,010	32	19	19	1.7	.3	3.7	24
16	2.6	73	52	7,100	411	26	18	14	5.1	.3	9.0	1,040
17	2.6	35	290	6,000	323	26	42	14	4.7	.2	8.4	1,340
18	2.6	24	1,200	2,860	187	24	356	13	5.1	.2	237	1,100
19	2.6	16	2,100	1,230	334	24	515	12	5.5	.2	60	334
20	2.2	11	2,260	301	279	23	323	17	5.1	.2	16	48
21	2.6	8.6	2,260	147	207	23	128	21	4.7	.1	11	24
22	2.6	7.0	1,230	80	119	22	106	21	2.8	.2	6.2	17
23	2.6	5.6	510	64	137	19	76	20	2.4	.3	4.9	11
24	3.0	4.5	312	64	367	19	52	17	2.0	.2	4.1	17
25	3.0	4.0	224	56	1,160	18	39	11	1.7	.2	2.9	167
26	3.0	3.6	180	56	2,920	167	23	9.7	4.3	.7	2.2	137
27	2.8	3.0	433	48	2,980	323	26	8.7	4.7	.5	1.9	96
28	2.6	2.8	822	48	2,710	334	21	8.2	3.9	1.0	1.5	56
29	4.2	3.2	1,040	48	-------	290	21	7.8	3.5	.7	1.2	30
30	4.2	3.2	1,000	48	-------	279	21	7.8	3.1	.7	.9	23
31	4.0	-------	798	48	-------	279	-------	7.3	-------	.5	1.5	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6.4	1.2	2.70	0.0057	0.007
November	73	2.8	14.6	.031	.03
December	2,260	2.1	480	1.01	1.16
January	11,100	48	3,130	6.59	7.60
February	2,980	28	1,010	2.13	2.22
March	2,220	18	186	.392	.45
April	958	18	162	.341	.38
May	23	7.3	15.3	.032	.04
June	5.5	1.3	3.25	.0068	.008
July	3.5	.1	1.05	.0022	.003
August	237	.5	12.4	.026	.03
September	1,340	1.2	157	.331	.37
The year	11,100	.1	431	.907	12.30

SALINE RIVER BASIN

MIDDLE FORK OF SALINE RIVER NEAR HARRISBURG, ILL.

LOCATION.—Chain gage in SW. ¼ sec. 13, T. 9 S., R. 6 E., at highway bridge 2 miles east of Harrisburg. Zero of gage 338.51 feet above mean sea level.

DRAINAGE AREA.—198 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1930.

EXTREMES.—Maximum discharge during year not determined because of backwater from Ohio River; minimum, 0.3 second-foot on numerous days from May to September.

1922–1930: Maximum discharge, 4,050 second-feet June 21, 1928 (gage height, 21.5 feet); minimum, 0.3 second-foot numerous days in September, 1927, and in May to September, 1930.

REMARKS.—Records fair except those for days when stage was changing rapidly, which are poor.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	149	4.2	4.2	72	46	115	38	4.9	0.3	0.4	0.3	0.4
2	16	19	4.2	1,260	235	72	41	4.6	.3	.4	.3	.4
3	14	405	4.2	2,240	368	64	52	4.1	.4	.3	.3	.3
4	10	497	4.2	1,520	1,430	36	35	3.4	.4	.3	.3	.3
5	9.0	35	4.2	566	2,600	35	32	1.6	.4	.3	2.3	.3
6	6.8	17	23	382	1,520	------	28	.9	.4	.3	1.3	.3
7	5.7	14	44	1,550	1,010	------	22	.8	.4	.3	1.1	.3
8	3.8	8.3	193	3,080	350	------	17	.4	2.0	.3	.9	.3
9	3.4	7.1	179	3,080	120	------	16	.3	1.6	.3	.7	4.1
10	3.2	35	46	------	72	------	16	.3	.6	.3	.3	3.2
11	2.5	44	35	------	46	41	14	11	.5	4.1	.3	3.0
12	2.3	50	23	------	350	35	14	8.5	.4	2.3	.3	2.2
13	2.3	80	542	------	810	25	13	5.4	.4	1.1	.3	1.7
14	1.6	90	950	------	465	25	13	3.4	.3	.9	1.8	11
15	1.5	56	765	------	149	24	12	2.7	.3	.5	1.3	19
16	1.1	56	1,400	------	72	19	11	2.4	6.9	.4	1.1	100
17	1.0	44	1,640	------	64	8.5	12	2.2	4.6	.3	.7	48
18	.9	35	2,060	------	64	35	35	2.0	3.1	.3	5.4	35
19	.9	35	1,950	------	52	32	22	2.0	1.3	.3	4.3	22
20	.8	9.0	1,840	------	46	28	16	1.8	.4	.3	4.1	8.3
21	7.4	8.6	1,700	------	41	16	12	1.1	.4	.3	3.4	5.3
22	7.1	8.3	1,240	------	36	12	10	.9	.4	.3	2.2	.3
23	6.7	8.2	------	------	35	8.5	8.5	.4	.4	.3	.9	.4
24	4.2	6.8	------	------	28	590	5.7	.4	.4	.3	.9	200
25	2.5	6.5	80	------	72	890	4.1	.4	.4	.3	2.2	35
26	2.3	6.2	120	------	1,370	1,240	3.4	.6	290	.3	2.0	5.3
27	2.2	5.4	250	------	1,430	705	3.1	.6	149	.3	1.1	2.8
28	8.6	5.2	368	------	645	405	2.9	.5	25	.3	.9	1.9
29	6.8	4.9	186	167	------	207	5.4	.4	.4	.3	.9	.9
30	6.7	4.2	120	110	------	80	5.1	.4	.4	.3	.9	.5
31	4.4	------	80	72	------	52	------	.3	------	.3	.7	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	149	0.8	9.51	0.048	0.06
November	497	4.2	53.5	.277	.30
February	2,600	28	483	2.44	2.54
April	52	2.9	17.3	.087	.10
May	11	.3	2.22	.011	.01
June	290	.3	16.4	.083	.09
July	4.1	.3	.548	.0028	.003
August	5.4	.3	1.40	.0071	.008
September	200	.3	17.1	.086	.10

NOTE.—Discharge not determined for days for which no record is shown, owing to backwater from Ohio River.

TRADEWATER RIVER BASIN

TRADEWATER RIVER NEAR DALTON, KY.

LOCATION.—Chain gage at Wilson highway bridge 3 miles southwest of Dalton, Hopkins County. Zero of gage 351.78 feet above mean sea level.
DRAINAGE AREA.—280 square miles.
RECORDS AVAILABLE.—June, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year ending Sept. 30, 1930, 4,150 second-feet Jan. 10 (gage height 20.52 feet); minimum, 0.6 second-foot Sept. 29, 30.

1928–1930. Maximum discharge, that of Jan. 10, 1930; minimum, 0.2 second-foot Oct. 12–15, 1928.

Flood of January, 1913, reached stage of about 22.1 feet.
REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1928–1930

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	0.5	9.6	840	60	664	2,650	565	217	102	21	36	9.0
2	.5	12	752	109	300	2,420	664	888	84	21	90	6.4
3	.6	11	360	262	144	2,160	598	1,140	137	19	38	5.8
4	.6	10	137	160	116	1,880	380	1,220	160	21	152	4.7
5	1.2	9.8	235	130	109	1,600	253	1,150	102	25	109	3.8
6	.8	9.4	262	176	109	1,540	192	1,120	67	18	42	3.8
7	.8	8.6	176	340	130	1,570	160	1,280	64	13	23	17
8	.6	7.2	109	290	176	1,470	130	1,440	96	12	15	422
9	.6	7.0	78	208	235	1,280	380	1,570	54	15	12	554
10	.5	7.6	62	390	244	840	912	1,600	42	20	9.0	350
11	.4	7.0	52	752	226	499	1,220	1,570	38	11	8.2	96
12	.2	5.8	44	708	160	271	1,470	1,280	72	8.4	271	54
13	.2	5.0	40	411	137	200	1,720	876	730	6.8	477	84
14	.2	5.0	42	208	116	576	1,760	818	1,150	6.6	184	200
15	.2	5.0	52	144	130	984	1,680	785	1,280	20	72	271
16	1.0	5.0	52	123	144	1,060	1,500	477	1,280	36	60	152
17	8.0	5.4	466	184	168	1,100	1,160	300	1,050	28	32	64
18	2.0	6.2	1,150	499	176	936	752	217	554	18	18	36
19	1.1	6.6	1,380	1,160	176	532	422	340	160	10	13	25
20	.9	7.4	1,500	1,330	340	290	235	543	200	9.8	9.8	18
21	.9	7.4	1,440	1,410	576	244	244	477	320	9.2	8.2	16
22	1.9	7.0	1,100	1,330	455	244	521	271	144	8.4	6.8	12
23	3.3	6.6	697	1,080	350	217	653	168	75	8.0	7.8	11
24	3.1	6.4	262	774	350	208	488	116	52	6.8	12	11
25	2.8	6.2	123	1,280	829	217	262	217	40	6.0	40	8.8
26	4.7	6.4	96	1,600	2,160	192	192	807	34	5.0	90	8.8
27	12	6.6	78	1,840	2,900	152	144	972	67	4.5	38	8.0
28	13	6.6	72	1,880	2,850	123	130	948	64	3.8	23	7.2
29	11	11	64	1,800	-------	116	176	664	44	3.8	14	6.4
30	9.8	244	57	1,570	-------	244	271	320	26	3.8	9.6	7.4
31	9.6	-------	50	1,120	-------	477	-------	144	-------	4.1	10	------

Daily and monthly discharge, in second-feet, of Tradewater River near Dalton, Ky., 1929–1930—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	5.4	34	36	226	697	1,360	84	23	4.8	9.6	1.4	1.0
2	4.8	244	34	280	466	1,200	102	21	4.8	8.6	1.4	.9
3	4.2	320	34	744	455	807	444	96	5.0	7.2	1.4	.9
4	4.2	208	30	912	876	411	1,020	176	5.1	6.6	1.3	.9
5	4.8	123	28	752	1,600	235	1,040	44	4.6	5.8	1.3	.8
6	4.2	75	28	444	2,110	192	796	30	4.6	5.0	1.3	.8
7	4.1	54	38	521	2,290	137	444	24	4.5	4.6	1.3	.8
8	3.8	42	84	1,760	2,240	350	244	20	4.3	4.0	1.0	.8
9	4.3	34	90	3,550	2,110	340	168	19	4.1	3.7	.9	.8
10	4.3	32	109	4,150	1,760	262	137	20	4.0	3.3	.9	.8
11	4.1	30	102	3,910	1,180	208	116	20	a 4.2	3.1	.8	.9
12	3.9	26	90	3,400	708	176	102	18	a 4.5	2.9	.8	.8
13	3.8	54	78	3,100	829	152	90	16	a 4.7	3.0	.7	.8
14	3.8	774	78	3,000	1,060	130	78	14	a 4.9	3.0	1.3	.8
15	3.5	1,100	208	2,750	1,090	109	75	14	a 5.2	3.2	1.1	.9
16	3.1	1,160	752	2,470	924	102	70	17	5.4	3.2	1.1	.8
17	2.5	1,060	888	2,290	587	96	70	18	4.8	3.2	1.7	.8
18	2.4	738	785	2,020	350	102	78	20	4.4	3.1	2.3	.8
19	2.2	290	1,120	1,440	262	217	67	28	4.0	2.8	2.2	.8
20	2.2	144	1,200	984	200	300	60	84	5.1	2.5	1.7	.8
21	40	102	1,220	587	176	262	60	84	4.8	2.3	1.6	.8
22	38	84	1,220	490	152	184	50	60	23	2.1	1.5	.9
23	20	67	1,040	340	152	137	44	40	17	2.0	1.4	.9
24	10	57	565	280	176	123	40	28	64	1.7	1.4	.9
25	18	54	262	226	200	130	36	30	57	1.7	1.3	1.0
26	25	52	208	192	984	152	32	42	32	1.7	1.2	.9
27	21	50	244	192	1,220	144	32	28	20	1.6	1.2	.8
28	16	47	310	576	1,360	137	28	16.0	15	1.6	1.2	.7
29	15	47	411	984	-------	116	24	8.2	12	1.4	1.1	.6
30	13	42	411	1,080	-------	102	26	5.7	11	1.4	1.1	.6
31	14	-------	300	984	-------	90	-------	5.0	-------	1.4	1.0	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	13	0.2	3.00	0.011	0.01
November	244	5.0	15.3	.055	.06
December	1,500	40	382	1.36	1.57
January	1,880	60	753	2.69	3.10
February	2,900	109	517	1.85	1.93
March	2,650	116	848	3.02	3.48
April	1,760	130	641	2.29	2.56
May	1,600	116	772	2.76	3.18
June	1,280	26	276	.986	1.10
July	36	3.8	13.0	.046	.05
August	477	6.8	62.3	.222	.26
September	554	3.8	82.4	.294	.33
The year	2,900	.2	364	1.30	17.63
1929-30					
October	40	2.2	9.86	.035	.04
November	1,160	26	238	.850	.95
December	1,220	28	387	1.38	1.59
January	4,150	192	1,440	5.14	5.93
February	2,290	152	936	3.34	3.48
March	1,360	90	273	.975	1.12
April	1,040	24	189	.675	.75
May	176	5.0	34.5	.123	.14
June	64	4.0	11.6	.041	.05
July	9.6	1.4	3.46	.012	.01
August	2.3	.7	1.29	.0046	.005
September	1.0	.6	.83	.0030	.003
The year	4,150	.6	290	1.04	14.07

a Estimated.

NOTE.—The records for 1928-29 are revised figures and supersede those published in Water-Supply Paper 683.

CUMBERLAND RIVER BASIN

CUMBERLAND RIVER AT PINEVILLE, KY.

LOCATION.—Staff gage 300 feet upstream from highway bridge at Pineville, Bell County, and 300 feet below mouth of Clear Creek.
DRAINAGE AREA.—692 square miles.
RECORDS AVAILABLE.—October, 1929, to September, 1930.
EXTREMES.—Maximum discharge during period, 18,900 second-feet Nov. 18 (gage height 13.68 feet); minimum, 9.2 second-feet Sept. 30 (gage height 0.64 foot).
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		129	400	1,330	715	1,000	682	246	20[illegible]	44	40	19
2		290	425	1,160	650	920	682	222	172	49	35	18
3		8,160	475	1,600	682	815	920	243	148	46	29	16
4		4,790	502	1,890	780	748	2,090	243	127	39	24	13
5		2,090	330	1,690	6,450	682	2,190	208	112	40	22	12
6		1,160	450	1,420	4,240	650	1,790	178	119	41	19	11
7		815	530	1,240	2,740	2,190	1,510	198	138	36	17	11
8		620	1,000	1,080	1,890	6,610	1,240	163	126	30	16	14
9		502	1,420	920	1,330	3,340	1,080	198	160	27	14	35
10		400	1,330	815	1,240	2,980	885	172	105	24	14	14
11		375	1,240	682	1,080	3,100	780	181	85	22	14	14
12		400	1,000	620	920	3,850	748	226	74	19	13	14
13		530	815	590	2,300	2,980	650	243	66	34	11	15
14		1,690	715	590	6,130	2,190	620	330	60	143	12	16
15		4,370	682	620	3,720	1,690	560	375	54	181	15	30
16		3,590	682	560	2,410	1,330	502	400	46	132	22	27
17		7,450	850	502	1,890	1,160	475	375	48	92	22	21
18		14,900	1,690	502	1,510	1,160	475	400	58	65	48	16
19		4,370	4,370	425	1,240	2,860	450	8,520	63	49	85	14
20		2,300	3,850	375	1,080	2,980	475	3,980	85	40	60	12
21		1,510	2,300	400	960	2,410	400	1,990	117	36	48	13
22		1,160	1,600	560	850	1,790	375	1,240	168	33	41	14
23		960	1,330	620	920	1,420	330	885	96	34	40	14
24		815	1,080	530	1,330	1,160	330	682	98	36	39	12
25		715	850	560	1,690	1,160	290	502	75	27	36	13
26		620	715	620	1,600	1,240	290	400	55	30	39	13
27		620	815	650	1,330	1,080	250	330	44	65	36	12
28		620	1,510	748	1,080	960	246	290	36	66	31	12
29		650	2,740	780	-------	920	240	352	34	39	28	11
30	124	590	2,300	780	-------	885	243	310	32	30	23	9.2
31	124	-------	1,690	780	-------	780	-------	250	-------	28	21	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
November	14,900	129	2,240	3.24	3.62
December	4,370	330	1,280	1.85	2.13
January	1,890	375	827	1.20	1.38
February	6,450	650	1,880	2.72	2.83
March	6,610	650	1,840	2.66	3.07
April	2,190	240	727	1.05	1.17
May	8,520	163	785	1.13	1.30
June	205	32	93.5	.135	.15
July	181	19	50.9	.074	.09
August	85	11	29.5	.043	.05
September	35	9.2	15.5	.022	.02

CUMBERLAND RIVER AT BARBOURVILLE, KY.

LOCATION.—Staff gage at highway bridge at Barbourville, Knox County, one-fourth mile above mouth of Richland Creek. Elevation of zero of gage 942.26 feet (United States Engineer Department datum of 1887).

DRAINAGE AREA.—982 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1930.

EXTREMES.—Maximum discharge during year, 18,500 second-feet Nov. 18 (gage height, 24.0 feet); minimum, 1.2 second-feet Aug. 12, caused by temporary dam upstream (gage height, −0.18 foot).

1922–1930: Maximum discharge, about 40,100 second-feet Dec. 22, 1926 (gage height, 45.9 feet); minimum, that of Aug. 12, 1930.

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	159	164	565	1,800	1,080	1,330	962	306	272	60	26	19
2	150	1,000	565	1,420	962	1,330	890	284	240	73	36	17
3	142	7,660	505	2,010	925	1,240	1,240	333	220	53	36	15
4	146	8,500	505	2,490	1,700	1,080	3,170	333	172	43	30	14
5	344	2,750	475	2,240	6,880	925	3,310	272	159	42	25	12
6	284	1,600	565	1,900	7,180	890	2,490	284	142	42	19	11
7	205	962	785	1,600	5,060	1,330	2,120	235	190	47	18	16
8	168	752	1,240	1,330	2,360	6,300	1,790	210	177	40	18	11
9	142	625	1,600	1,240	1,800	5,500	1,330	220	164	38	16	9
10	146	505	1,700	1,000	1,700	4,150	1,160	215	154	15	14	12
11	154	445	1,510	925	1,510	4,070	1,000	220	88	23	12	27
12	109	475	1,420	820	1,240	4,820	925	245	86	22	5	16
13	109	565	1,000	752	3,310	4,290	855	272	73	24	14	13
14	83	1,240	925	752	9,410	3,310	785	415	64	88	15	19
15	94	5,460	855	785	6,400	1,510	752	505	58	284	17	17
16	91	6,450	855	785	4,070	1,700	720	475	60	170	19	21
17	78	7,800	962	720	2,620	1,510	595	475	58	126	24	50
18	64	18,100	1,900	720	2,120	1,510	565	415	64	68	45	21
19	52	12,300	4,670	565	1,700	4,070	565	5,540	73	71	71	17
20	47	4,470	5,540	535	1,330	4,620	535	6,650	78	56	83	16
21	50	1,900	3,310	535	1,240	3,690	505	2,890	142	47	58	14
22	75	1,330	2,120	785	1,160	2,360	475	1,600	267	42	44	11
23	505	1,240	1,700	925	1,160	2,120	445	1,240	168	45	38	11
24	625	1,160	1,510	890	1,700	1,600	403	820	115	31	38	10
25	397	890	1,080	820	2,360	1,600	397	655	103	44	36	12
26	289	785	1,000	720	2,240	1,800	379	505	78	30	34	10
27	210	785	1,000	925	2,240	1,600	350	415	56	56	29	18
28	182	752	1,600	1,240	1,700	1,420	328	350	49	112	34	13
29	134	785	3,690	1,240	-------	1,330	267	415	34	64	32	12
30	146	720	3,440	1,240	-------	1,240	262	415	39	44	31	9
31	182	-------	2,490	1,160	-------	1,080	-------	328	-------	36	23	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	625	47	179	0.182	0.21
November	18,100	164	3,070	3.13	3.49
December	5,540	475	1,650	1.68	1.94
January	2,490	535	1,120	1.14	1.31
February	9,410	925	2,760	2.81	2.93
March	6,300	890	2,430	2.47	2.85
April	3,310	262	983	1.00	1.12
May	6,650	210	888	.904	1.04
June	272	34	121	.123	.14
July	284	15	62.8	.064	.07
August	83	5	30.3	.031	04
September	50	9	15.8	.016	.02
The year	18,100	5	1,100	1.12	15.16

CUMBERLAND RIVER AT CUMBERLAND FALLS, KY.

LOCATION.—Staff gage 400 feet above falls at Cumberland Falls post office, Whitley County, 13 miles east of Cumberland Falls railroad station. Elevation of zero of gage 823.48 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—2,010 square miles.

RECORDS AVAILABLE.—August, 1907, to December, 1911; April, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 23,600 second-feet Nov. 18 (gage height, 7.30 feet); minimum, 18 second-feet Sept. 8, 9 (gage height, 1.06 feet).

1907–1911, 1915–1930: Maximum discharge, about 59,600 second-feet Jan. 28, 1918 (gage height, 12.5 feet); minimum, 12 second-feet Sept. 10–12, 1925 (gage height, 1.02 feet).

REMARKS.—Records good below and fair above 20,000 second-feet. Low-water flow may be slightly affected by operation of power plant at Williamsburg, 25 miles upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	390	256	1,560	3,850	2,560	2,680	2,220	552	658	104	116	43
2	350	565	1,220	3,180	2,330	2,440	2,110	539	578	98	98	35
3	330	7,680	1,140	3,180	2,110	2,330	2,440	526	478	93	93	28
4	273	11,900	1,070	3,570	3,180	2,110	6,100	526	434	93	83	22
5	239	9,930	1,070	3,850	9,000	2,000	5,750	500	350	93	83	20
6	248	4,760	1,270	3,440	12,400	1,780	5,410	489	330	93	104	20
7	239	2,560	1,460	3,180	10,400	2,110	4,450	500	330	104	83	20
8	256	1,780	2,110	2,800	6,100	5,080	3,570	630	350	93	58	18
9	256	1,460	2,800	2,560	4,150	9,460	2,920	630	310	93	43	18
10	256	1,140	3,180	2,330	3,440	7,680	2,440	591	310	88	73	83
11	248	971	2,920	2,110	3,050	7,260	2,110	591	290	88	63	104
12	239	905	2,560	1,890	2,680	6,860	2,000	604	290	98	53	195
13	195	1,250	2,330	1,780	6,470	7,260	1,780	617	273	98	39	187
14	171	2,680	1,890	2,000	15,000	6,100	1,670	830	205	239	25	187
15	157	10,900	1,780	2,000	14,500	4,450	1,560	1,060	164	205	22	157
16	143	10,900	1,780	2,000	10,400	3,440	1,460	1,000	150	239	20	129
17	143	15,600	2,110	1,890	6,100	3,050	1,360	890	143	390	22	116
18	136	23,000	3,180	1,670	4,450	1,890	1,200	672	129	330	129	104
19	129	20,400	6,100	1,460	3,850	9,460	1,060	3,440	116	248	205	93
20	129	15,600	7,680	1,360	3,180	9,930	971	8,110	116	195	179	73
21	116	6,100	6,470	1,270	2,800	7,680	905	7,680	171	164	129	73
22	150	3,300	4,760	1,460	2,440	5,410	860	4,150	157	143	116	68
23	179	2,440	3,440	2,110	2,330	4,150	830	2,560	171	129	104	63
24	150	2,220	3,050	2,330	2,800	3,440	800	1,890	380	116	104	53
25	171	2,110	2,560	2,110	3,570	3,440	728	1,460	290	104	98	53
26	658	1,780	2,110	2,000	3,850	4,150	672	1,110	239	93	93	43
27	478	1,670	2,000	2,110	3,570	4,150	617	954	195	93	88	39
28	434	1,670	2,440	3,180	3,050	3,440	565	770	157	88	83	83
29	434	1,560	4,760	3,440	------	2,920	526	770	129	88	78	88
30	330	1,560	6,100	3,180	------	2,680	552	728	116	110	63	73
31	282	------	5,080	2,920	------	2,440	------	644	------	129	53	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	658	116	255	0.127	0.15
November	23,000	256	5,620	2.80	3.12
December	7,680	1,070	2,970	1.48	1.71
January	3,850	1,270	2,460	1.22	1.41
February	15,000	2,110	5,350	2.66	2.77
March	9,930	1,780	4,560	2.27	2.62
April	6,100	526	1,990	.990	1.10
May	8,110	489	1,480	.736	.85
June	658	116	267	.133	.15
July	390	88	140	.070	.08
August	205	20	83.9	.042	.05
September	195	18	76.3	.038	.04
The year	23,000	18	2,080	1.03	14.05

CUMBERLAND RIVER AT BURNSIDE, KY.

LOCATION.—Staff gage on South Fork of Cumberland River 700 feet above mouth, at Burnside, Pulaski County, in pool formed by Dam No. 21, 28 miles downstream. Elevation of zero of gage 583.5 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—4,890 square miles, including South Fork.

RECORDS AVAILABLE.—October, 1914, to September, 1930.

EXTREMES.—Maximum discharge during year, 50,300 second-feet Nov. 18 (gage height, 28.6 feet); minimum, 150 second-feet Aug. 7–18 (gage height, 1.9 feet).

1914–1930: Maximum discharge, about 164,000 second-feet Jan. 29, 1918 (gage height, 69.5 feet); minimum, 65 second-feet Sept. 6–20, 1925 (gage height, 1.85 feet). Lower stages have been recorded but were due to lowering of pool at Dam No. 21.

Flood of Jan. 29, 1918, reached highest stage since 1884.

REMARKS.—Records fair. Tables of discharge include flow in main river and South Fork. Stage at low water affected by manipulations at Dam No. 21.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,130	3,880	3,470	11,000	8,650	7,600	5,840	1,240	1,700	275	200	200
2	920	1,940	2,950	8,800	7,000	7,150	5,140	1,240	1,580	450	200	200
3	820	11,000	2,560	8,500	6,400	6,700	5,280	1,240	1,460	450	200	200
4	720	25,800	2,300	10,400	5,980	5,700	8,650	1,240	1,130	360	200	200
5	630	20,100	2,060	10,000	21,300	5,560	13,100	1,240	920	275	200	200
6	540	14,100	2,060	9,250	32,700	5,000	11,500	1,240	820	275	200	200
7	540	7,750	3,470	8,200	25,200	5,000	10,400	1,240	820	275	150	200
8	540	5,000	5,420	7,300	18,400	9,400	8,650	1,240	820	275	150	200
9	540	4,720	6,700	9,880	12,500	17,600	7,300	1,240	820	275	150	200
10	540	3,210	7,450	12,400	9,560	18,000	5,840	1,460	820	275	150	200
11	540	2,560	7,150	9,560	7,900	14,700	5,280	1,580	820	275	150	200
12	540	1,820	6,550	7,750	7,150	16,500	4,440	1,940	820	275	150	200
13	540	2,060	5,840	6,400	7,600	17,800	3,880	3,600	820	275	150	200
14	540	9,400	5,140	6,120	34,900	15,600	3,600	4,160	720	450	150	200
15	540	20,100	4,300	7,450	39,500	11,800	3,470	4,720	630	450	150	360
16	540	32,700	4,720	8,350	26,800	9,560	2,950	4,440	540	450	150	540
17	540	23,500	5,560	7,600	18,400	8,050	2,560	3,470	450	450	150	540
18	540	50,300	8,500	6,400	13,400	7,000	2,430	2,820	360	450	150	450
19	540	44,600	16,800	5,560	10,400	11,800	2,430	12,200	275	450	200	360
20	540	28,500	19,700	4,720	8,800	31,600	2,300	25,800	275	450	200	275
21	540	19,000	17,200	4,160	7,150	20,700	2,180	19,200	275	360	450	275
22	540	10,700	12,700	4,020	6,550	15,400	2,060	13,100	450	275	275	275
23	540	7,000	10,000	5,140	5,840	11,300	1,940	8,200	450	275	275	275
24	540	5,980	8,200	5,700	7,600	9,250	1,820	5,980	540	275	275	275
25	540	5,420	6,850	5,280	11,200	8,200	1,820	4,580	540	275	275	275
26	540	4,860	6,120	5,000	11,200	10,200	1,700	3,740	450	275	275	275
27	1,130	4,300	5,140	4,860	10,200	12,900	1,580	2,820	450	275	275	275
28	920	4,160	5,840	6,850	8,800	10,400	1,460	2,430	360	275	275	275
29	820	4,300	11,700	13,200	-------	8,950	1,350	2,180	275	275	275	275
30	920	4,020	15,900	12,400	-------	7,900	1,240	2,180	275	200	275	275
31	1,580	-------	13,600	10,000	-------	6,850	-------	1,940	-------	200	275	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,580	540	675	0.138	0.16
November	50,300	1,820	12,800	2.62	2.92
December	19,700	2,060	7,610	1.56	1.80
January	13,200	4,020	7,810	1.60	1.84
February	39,500	5,840	14,000	2.86	2.98
March	31,600	5,000	11,400	2.33	2.69
April	13,100	1,240	4,410	.902	1.01
May	25,800	1,240	4,640	.949	1.09
June	1,700	275	689	.141	.16
July	450	200	326	.067	.08
August	450	150	213	.044	.05
September	540	200	269	.055	.06
The year	50,300	150	5,340	1.09	14.84

CUMBERLAND RIVER AT CELINA, TENN.

LOCATION.—Staff gage at boat landing at Celina, Clay County, 900 feet below mouth of Obey River. Elevation of zero of gage 487.7 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—7,320 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1930.

EXTREMES.—Maximum discharge during year, 54,800 second-feet Nov. 20 (gage height, 28.7 feet); minimum, 200 second-feet on several days in August and September (gage height, 0.5 foot).

1922–1930: Maximum discharge, about 176,000 second-feet Dec. 29, 1926 (gage height, 57.2 feet); minimum, 92 second-feet Sept. 2, 11–14, 26, 1925 (gage height, 0.2 foot).

REMARKS.—Records good below 45,000 second-feet; fair to poor above 45,000 second-feet. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,150	2,540	5,830	18,400	15,000	12,900	10,000	2,410	3,060	740	240	290
2	1,900	3,320	5,410	15,500	12,800	11,700	9,000	2,280	2,670	740	240	290
3	1,660	9,300	4,850	15,800	11,200	11,000	9,000	2,670	2,410	650	240	240
4	1,420	11,200	4,290	14,500	11,400	10,200	12,400	2,540	2,280	650	240	240
5	1,300	24,300	4,150	14,000	20,800	9,450	15,100	2,410	2,020	570	240	240
6	1,300	25,300	4,010	14,000	28,100	8,700	16,200	2,280	1,900	570	200	240
7	1,180	19,500	4,010	13,200	38,200	8,550	16,500	2,150	2,020	570	200	240
8	1,060	12,900	5,410	12,600	37,600	11,000	14,500	2,150	2,020	490	200	200
9	1,060	8,550	6,950	17,200	27,000	13,100	12,600	2,020	1,780	490	290	200
10	950	6,950	8,850	17,500	19,300	20,400	10,800	2,020	1,540	420	290	200
11	950	4,990	9,600	17,500	14,500	24,300	9,150	2,020	1,540	420	240	350
12	950	4,570	9,750	15,500	12,000	27,200	7,950	3,060	1,420	420	200	350
13	950	4,430	9,150	12,800	14,500	23,900	7,230	3,320	1,300	570	200	570
14	950	14,200	8,250	11,800	29,000	23,500	6,390	3,730	1,300	1,300	200	570
15	840	19,500	7,650	13,500	43,000	20,800	5,970	6,390	1,180	1,300	200	1,420
16	840	26,400	7,230	13,200	50,000	17,200	5,550	6,250	1,060	950	200	1,060
17	740	39,200	8,250	12,900	43,000	14,200	5,130	6,250	1,060	840	200	740
18	650	40,200	14,800	12,000	29,800	12,200	4,850	5,550	950	650	490	740
19	650	46,400	14,800	10,800	20,600	19,600	4,570	21,500	840	570	1,300	740
20	650	54,200	18,600	9,450	15,800	26,200	4,150	23,700	840	570	650	740
21	650	46,700	22,500	7,800	13,200	35,700	3,870	27,900	740	570	420	740
22	1,180	30,500	21,200	7,510	11,400	31,500	3,590	25,700	740	490	420	490
23	1,420	17,800	17,800	7,510	10,200	22,700	3,320	19,600	740	490	420	490
24	1,300	11,700	14,200	7,510	11,200	17,200	3,190	13,900	740	490	420	490
25	1,180	9,150	11,700	8,250	12,300	15,300	3,060	9,900	740	490	490	420
26	1,060	7,950	10,000	8,100	13,700	15,300	2,930	7,230	740	490	490	420
27	950	7,370	9,300	7,800	15,300	14,500	2,800	5,970	740	420	490	420
28	840	6,810	10,500	13,400	14,300	16,500	2,670	4,850	740	350	350	290
29	1,060	6,530	13,700	14,300	-------	15,300	2,540	4,010	740	350	350	290
30	1,540	6,250	14,700	16,700	-------	13,100	2,540	4,150	740	290	290	290
31	2,670	-------	18,800	17,300	-------	11,600	-------	3,590	-------	290	290	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,670	650	1,160	0.158	0.18
November	54,200	2,540	17,600	2.40	2.68
December	22,500	4,010	10,500	1.43	1.65
January	18,400	7,510	12,800	1.75	2.02
February	50,000	10,200	21,300	2.91	3.03
March	35,700	8,550	17,300	2.36	2.72
April	16,500	2,540	7,250	.990	1.10
May	27,900	2,020	7,470	1.02	1.18
June	3,060	740	1,350	.184	.21
July	1,300	290	587	.080	.09
August	1,300	200	345	.047	.05
September	1,420	200	467	.064	.07
The year	54,200	200	8,090	1.11	14.98

CUMBERLAND RIVER AT CARTHAGE, TENN.

LOCATION.—Staff gage at highway bridge at Carthage, Smith County, 1 mile below mouth of Caney Fork and 8 miles above Lock and Dam No. 7. Elevation of zero of gage 435.9 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—10,740 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1930.

EXTREMES.—Maximum discharge during year, 78,900 second-feet Feb. 15 (gage height, 29.00 feet); minimum, 360 second-feet Aug. 9 (gage height, 7.40 feet).

1922–1930: Maximum discharge, about 209,000 second-feet Dec. 30, 1926 (gage height, 59.8 feet); minimum, 200 second-feet Sept. 10, 11, 1925 (regulated flow).

REMARKS.—Records good above and fair below 3,000 second-feet. Low-water flow largely regulated by operation of power plant on Caney Fork.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,490	5,400	10,600	29,300	23,800	23,000	17,400	4,260	6,940	945	945	556
2	3,330	8,240	9,250	25,800	20,800	20,800	16,300	4,260	5,400	1,190	715	556
3	3,200	20,400	9,250	27,700	16,700	19,300	19,600	3,720	3,720	1,620	440	520
4	1,980	27,700	8,570	29,300	21,500	17,200	25,800	4,820	4,820	1,710	410	556
5	2,080	36,600	7,910	26,500	33,300	16,300	29,300	3,990	4,260	1,440	440	520
6	1,980	36,600	7,910	23,800	36,600	14,900	27,700	3,200	4,260	1,020	380	580
7	2,180	31,700	7,910	21,900	49,400	20,000	28,100	3,330	3,720	745	420	484
8	1,710	23,800	9,250	23,000	49,900	29,300	24,600	3,720	3,460	688	420	556
9	2,280	16,300	9,930	30,900	41,700	36,600	21,900	4,260	2,950	1,020	370	508
10	2,280	12,000	11,700	29,300	32,500	35,000	18,500	3,990	2,710	1,530	594	520
11	2,280	9,250	13,400	27,700	23,800	41,700	15,900	4,540	3,080	1,280	484	532
12	2,180	9,250	14,100	25,400	20,000	49,400	13,800	4,260	2,950	1,280	607	1,980
13	2,180	14,900	14,100	22,300	34,600	46,400	12,700	4,540	2,830	1,190	484	1,890
14	1,710	27,700	13,100	21,500	62,500	40,000	10,600	5,110	2,710	1,280	420	1,800
15	1,530	38,300	15,600	24,200	77,600	34,200	9,930	6,620	2,280	1,280	460	1,360
16	1,530	56,100	15,600	22,300	76,300	28,900	10,600	8,240	1,800	2,180	1,360	1,800
17	1,530	65,600	14,900	20,800	67,800	24,600	9,930	7,910	1,620	1,980	1,020	1,890
18	1,530	69,000	23,800	19,300	52,000	27,700	9,930	8,570	1,980	1,800	2,080	1,890
19	1,360	70,400	25,400	17,000	35,800	51,500	9,250	20,000	2,080	1,280	2,180	1,980
20	1,530	68,600	28,900	13,400	27,700	57,700	8,240	32,500	1,710	1,360	2,080	2,080
21	2,280	64,800	32,100	12,700	22,300	56,100	6,940	34,600	1,800	1,110	1,800	2,080
22	6,000	49,000	30,900	13,400	19,300	51,100	6,310	37,100	1,530	1,190	1,530	1,980
23	5,110	33,300	28,900	13,100	19,300	40,000	7,260	30,500	1,530	993	1,110	1,620
24	3,990	21,900	23,000	12,700	23,000	30,100	6,620	23,000	1,360	1,020	945	2,280
25	3,330	16,300	19,300	12,700	29,300	28,500	6,000	17,000	1,890	1,360	410	1,620
26	2,710	13,800	15,900	12,700	26,100	30,100	6,000	12,000	1,620	1,360	648	1,440
27	2,600	13,400	16,300	13,400	26,900	30,100	6,000	9,590	1,710	1,020	688	1,620
28	2,080	12,700	16,800	18,500	26,100	27,700	5,110	9,250	1,980	928	532	1,360
29	1,710	12,700	22,300	23,000	-------	27,300	5,400	8,240	1,710	688	520	993
30	4,820	12,000	25,800	23,400	-------	23,000	6,310	7,580	1,360	532	410	1,020
31	6,000	-------	26,900	25,800	-------	20,400	-------	7,580	-------	1,360	484	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,000	1,360	2,630	0.246	0.28
November	70,400	5,400	29,900	2.79	3.11
December	32,100	7,910	17,100	1.60	1.84
January	30,900	12,700	21,400	2.00	2.31
February	77,600	16,700	35,600	3.33	3.47
March	57,700	14,900	32,200	3.00	3.47
April	29,300	5,110	13,400	1.25	1.40
May	37,100	3,200	10,900	1.02	1.18
June	6,940	1,360	2,730	.255	.28
July	2,180	532	1,240	.116	.13
August	2,180	370	819	.077	.09
September	2,280	484	1,290	.121	.14
The year	77,600	370	13,900	1.30	17.70

CUMBERLAND RIVER AT NASHVILLE, TENN.

LOCATION.—Staff gage at municipal wharf at Broad and First Streets, Nashville, Davidson County, 2½ miles above Lock and Dam No. 1. Elevation of zero of gage 366.17 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—12,860 square miles.

RECORDS AVAILABLE.—January, 1902, to December, 1904; October, 1918, to September, 1930.

EXTREMES.—Maximum discharge during year, 79,200 second-feet Feb. 17 (gage height, 32.0 feet); minimum, 380 second-feet Aug. 13, 14 (gage height, 6.3 feet).

1902–1904, 1918–1930: Maximum discharge, 203,000 second-feet Jan. 1, 1927 (gage height, 56.2 feet); minimum, that of Aug. 13, 14, 1930.

REMARKS.—Records fair. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,630	9,260	13,500	28,400	26,100	27,100	22,300	6,170	8,210	1,610	870	1,040
2	2,530	18,200	11,500	29,800	25,300	25,000	19,800	5,510	7,520	1,410	1,040	870
3	3,060	20,000	10,400	39,200	22,600	23,000	19,600	4,550	6,500	1,410	1,040	870
4	3,630	25,300	9,980	35,400	21,400	21,600	27,900	4,870	4,550	1,410	1,040	870
5	3,060	28,400	9,620	34,600	36,900	19,100	28,700	4,870	4,550	1,410	720	720
6	3,060	35,400	8,910	30,600	40,400	18,200	32,000	4,550	5,190	1,410	720	720
7	2,530	38,300	8,210	26,600	41,300	19,600	30,300	3,630	5,190	1,410	600	720
8	2,280	33,400	6,840	27,100	47,900	32,000	29,200	3,930	4,870	1,220	600	720
9	2,280	25,600	13,100	45,200	51,400	32,000	26,300	4,240	3,930	1,040	500	720
10	2,040	19,600	13,100	43,700	46,400	39,200	22,800	4,870	3,340	1,040	500	720
11	2,280	15,200	12,700	38,000	36,300	41,900	20,200	5,840	2,790	1,040	500	870
12	2,530	14,800	15,700	32,800	27,100	52,400	17,600	6,840	2,790	2,040	430	1,220
13	2,790	30,100	17,600	29,000	29,500	53,000	15,700	5,190	3,060	2,040	380	1,820
14	2,530	34,000	11,100	30,600	61,100	51,400	13,500	5,190	2,790	1,820	380	2,530
15	2,280	41,000	17,600	38,300	70,900	44,000	8,210	5,510	2,790	1,610	2,530	2,040
16	1,820	47,000	23,600	34,300	78,500	38,000	7,180	6,170	2,530	1,410	1,220	2,040
17	1,610	56,000	22,100	27,900	79,200	32,000	6,840	8,560	2,280	1,610	720	1,820
18	1,410	68,400	20,400	26,300	74,900	26,900	10,400	8,910	2,040	1,820	1,610	2,040
19	1,410	69,800	27,400	20,400	63,800	60,400	9,980	32,000	2,040	2,280	2,280	2,040
20	1,410	70,600	28,700	18,200	45,200	63,100	9,620	30,900	2,040	2,040	2,530	2,040
21	1,820	69,800	30,100	16,900	32,000	61,400	8,910	35,400	2,040	1,610	2,790	1,820
22	2,040	67,000	30,600	16,500	26,600	60,000	7,520	35,400	1,820	1,410	2,280	2,280
23	8,210	57,000	32,600	16,100	21,600	47,300	6,840	38,000	1,820	1,220	1,820	2,280
24	7,520	40,400	30,600	15,200	25,000	46,400	6,500	35,100	1,610	1,040	1,610	2,040
25	5,190	25,600	25,300	14,800	25,300	39,200	6,840	27,600	1,410	1,040	1,410	2,040
26	4,240	20,400	21,400	14,400	30,900	33,700	6,170	20,400	1,610	1,220	1,040	2,040
27	4,240	16,900	19,400	15,200	28,400	32,800	6,170	14,400	1,610	1,220	1,040	2,040
28	2,790	16,900	20,900	20,700	27,900	32,000	6,840	10,700	1,610	1,040	1,040	1,820
29	2,530	16,100	24,600	22,800	-------	29,500	7,520	9,980	1,820	1,040	1,040	1,820
30	2,530	14,400	25,800	25,300	-------	28,400	5,190	8,910	1,820	1,040	1,040	1,610
31	6,840	-------	27,900	25,000	-------	25,000	-------	8,210	-------	870	1,040	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,210	1,410	3,100	0.241	0.28
November	70,600	9,260	34,800	2.71	3.02
December	32,600	6,840	19,100	1.49	1.72
January	45,200	14,400	27,100	2.11	2.43
February	79,200	21,400	40,900	3.18	3.31
March	63,100	18,200	37,300	2.90	3.34
April	32,000	5,190	14,900	1.16	1.29
May	38,000	3,630	13,100	1.02	1.18
June	8,210	1,410	3,210	.250	.28
July	2,280	870	1,410	.110	.13
August	2,790	380	1,170	.091	.10
September	2,530	720	1,540	.120	.13
The year	79,200	380	16,300	1.27	17.21

CUMBERLAND RIVER AT CLARKSVILLE, TENN.

LOCATION.—Staff gage at steamboat landing at Clarksville, Montgomery County, 1 mile above mouth of Red River. Elevation of zero of gage 329.3 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—16,000 square miles, including Red River.

RECORDS AVAILABLE.—October, 1924, to September, 1930.

EXTREMES.—Maximum discharge during year, 87,000 second-feet Feb. 18 (gage height, 35.8 feet); minimum, 780 second-feet Aug. 13–14 (gage height, 11.7 feet).

1924–1930: Maximum discharge, about 216,000 second-feet Jan. 2, 1927 (gage height, 60.0 feet); minimum, 780 second-feet Sept. 3, 1925, Aug. 13, 14, 1930.

REMARKS.—Records fair. Records include flow of Red River. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,520	9,120	15,600	34,400	33,300	34,000	28,100	7,030	10,600	2,700	1,560	1,350
2	3,970	16,300	14,200	34,400	32,600	32,200	25,500	7,370	9,840	2,460	1,560	1,150
3	3,440	25,500	13,400	38,100	30,400	29,600	26,600	6,700	9,120	2,230	1,560	1,150
4	3,700	28,100	11,600	44,000	29,200	28,100	32,200	6,370	7,710	2,230	1,560	1,150
5	3,970	30,000	11,300	39,600	50,300	25,200	36,600	6,370	6,370	2,230	1,560	960
6	3,440	34,800	10,900	37,400	56,200	23,000	37,000	6,050	6,700	2,230	1,350	960
7	3,190	35,900	10,600	33,300	48,500	23,700	36,600	5,730	7,030	2,000	1,350	960
8	2,940	37,800	10,600	40,700	52,900	37,000	34,800	5,110	6,700	2,000	960	960
9	2,940	32,200	11,300	73,300	57,000	42,600	32,600	5,420	6,050	1,780	960	960
10	2,700	24,400	13,800	80,700	55,100	42,900	32,600	7,710	5,420	1,780	1,150	960
11	2,700	18,100	13,800	67,400	50,300	44,400	26,300	9,480	4,520	960	960	1,350
12	2,940	15,200	15,200	52,200	37,400	57,000	22,600	10,600	4,240	1,350	960	2,940
13	2,700	12,700	16,700	42,900	38,100	58,100	19,200	8,760	4,520	2,460	780	2,460
14	2,700	26,300	17,000	42,600	64,400	57,700	17,400	8,760	4,240	2,460	780	4,810
15	2,700	42,900	16,700	55,500	81,400	51,800	16,000	8,410	3,970	2,230	960	4,520
16	2,460	48,500	24,800	51,800	83,300	44,400	13,800	8,410	3,970	2,460	1,780	3,190
17	2,230	52,900	28,100	42,600	85,800	39,200	13,100	9,120	3,970	2,230	2,000	2,700
18	2,000	64,000	24,100	36,300	85,800	34,000	13,800	16,000	3,440	2,230	2,000	2,460
19	2,000	69,600	31,800	32,200	80,300	66,600	13,100	67,700	3,190	2,700	2,230	2,460
20	2,000	71,400	35,200	28,900	65,500	79,200	12,000	57,400	3,190	2,700	3,190	2,460
21	2,000	71,400	34,400	25,900	44,400	65,500	11,300	44,000	3,190	2,460	3,190	2,230
22	2,940	69,900	35,500	23,300	34,400	69,200	10,900	42,600	3,190	2,230	2,940	2,460
23	2,000	69,200	37,000	22,200	29,600	65,100	9,120	42,900	2,940	2,000	2,700	2,460
24	9,120	51,100	35,500	21,100	29,600	57,400	8,760	41,400	2,940	2,000	2,230	2,460
25	7,710	35,200	32,600	21,100	30,000	48,100	9,120	33,700	2,700	2,000	2,000	2,230
26	6,050	25,900	27,800	19,200	36,300	42,200	8,060	29,200	2,460	1,780	1,780	2,460
27	4,810	25,200	24,100	19,200	37,400	38,900	8,060	21,800	2,460	2,000	1,560	2,230
28	3,970	18,900	25,900	27,000	35,200	37,800	8,410	16,300	2,700	2,000	1,350	2,000
29	3,700	16,700	32,900	33,300	-------	35,900	8,060	13,800	2,700	2,000	1,350	2,000
30	3,970	16,300	33,700	33,700	-------	34,000	7,030	12,400	2,700	1,780	1,350	2,000
31	4,240	-------	34,000	33,300	-------	31,800	-------	11,300	-------	1,780	1,350	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,120	2,000	3,540	0.221	0.25
November	71,400	9,120	36,500	2.28	2.54
December	37,000	10,600	22,600	1.41	1.63
January	80,700	19,200	38,300	2.39	2.76
February	85,800	29,200	49,800	3.11	3.24
March	79,200	23,000	44,400	2.78	3.20
April	37,000	7,030	19,300	1.21	1.35
May	67,700	5,110	18,600	1.16	1.34
June	10,600	2,460	4,760	.298	.33
July	2,700	960	2,110	.132	.15
August	3,190	780	1,650	.103	.12
September	4,810	960	2,080	.130	.14
The year	85,800	780	20,100	1.26	17.05

LAUREL RIVER NEAR VOX, KY.

LOCATION.—Staff gage at Whitman ford, 2 miles below mouth of Spruce Creek and 5 miles southwest of Vox, Laurel County.
DRAINAGE AREA.—239 square miles.
RECORDS AVAILABLE.—June to September, 1930.
EXTREMES.—Maximum discharge during period, 121 second-feet July 15 (gage height, 1.52 feet); minimum, 1.3 second-feet Sept. 10, 11 (gage height, 0.38 foot).
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1930

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1		13	4.8	2.5	16		73	3.6	5.8
2		12	3.4	2.5	17		38	5.8	5.2
3		13	2.7	2.5	18		20	9.8	4.5
4		21	2.0	2.0	19		14	14	3.6
5		17	1.8	2.0	20		9.8	13	2.9
6		12	1.6	1.6	21		7.6	13	2.7
7		9.4	1.6	1.6	22		5.8	12	2.5
8		7.6	1.6	1.6	23		4.5	8.1	2.3
9		5.8	1.6	1.5	24		3.8	6.5	2.5
10		5.5	1.6	1.3	25		3.4	5.8	2.5
11		4.8	2.3	1.3	26	19	2.9	4.5	2.7
12		4.1	2.5	2.3	27	14	2.5	3.8	2.7
13		12	2.0	3.4	28	9.8	3.1	3.4	2.7
14		62	2.5	4.5	29	8.1	3.1	2.9	2.7
15		117	3.6	5.8	30	7.2	4.5	2.9	2.5
					31		6.5	2.7	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
June 26–30	19	7.2	11.6	0.049	0.009
July	117	2.5	16.7	.070	.08
August	14	1.6	4.75	.020	.02
September	5.8	1.3	2.81	.012	.01

ROCKCASTLE RIVER AT ROCKCASTLE SPRINGS, KY.

LOCATION.—Staff gage at Rockcastle Springs, Laurel County, 2 miles below Cane Creek and 5 miles above mouth of river. Elevation of zero of gage 687.2 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—746 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1930.

EXTREMES.—Maximum discharge during year, 9,680 second-feet May 19 (gage height, 12.45 feet); minimum, 0.9 second-foot Aug. 13 (gage height, −0.01 foot).

1922–1930: Maximum discharge, about 36,400 second-feet Mar. 24, 1929 (gage height, 31.5 feet); minimum, that of Aug. 13, 1930.

REMARKS.—Records good above and fair below, 100 second-feet.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126	1,300	335	1,300	1,300	1,000	750	188	200	48	9.0	4.1
2	170	850	320	1,060	1,000	950	650	188	172	53	7.1	3.6
3	132	1,860	320	1,790	950	900	700	200	148	48	5.5	3.0
4	134	2,400	305	1,930	1,360	800	750	215	136	38	4.8	2.6
5	110	1,420	275	1,480	7,670	750	700	200	126	28	4.1	2.2
6	92	850	275	1,240	5,360	750	700	188	118	24	3.0	1.8
7	85	625	550	1,060	2,800	800	650	165	118	22	2.6	1.5
8	75	510	950	1,000	1,860	1,240	600	155	114	22	2.2	1.4
9	65	410	1,300	3,160	1,420	1,930	550	175	106	24	1.8	1.2
10	53	335	1,060	3,160	1,180	1,720	470	148	99	43	1.5	1.1
11	48	290	900	2,160	1,000	1,660	430	160	92	43	1.2	1.8
12	45	275	800	1,600	800	2,240	410	1,600	82	43	1.0	1.8
13	38	350	700	1,360	1,600	1,860	370	1,060	72	40	1.0	1.2
14	32	2,080	575	1,420	6,460	1,660	350	1,360	59	59	1.5	3.8
15	29	2,720	530	1,660	4,100	1,420	320	1,360	53	70	1.8	7.5
16	28	2,400	700	1,600	2,400	1,120	305	900	45	59	1.5	9.0
17	26	2,980	950	1,480	1,790	950	290	600	41	49	1.7	12
18	23	8,000	2,560	1,300	1,420	950	290	1,180	43	40	12	9.0
19	20	3,340	2,800	1,000	1,180	1,930	260	8,840	38	32	120	7.1
20	18	1,790	2,160	850	950	2,560	245	5,470	43	28	43	8.0
21	16	1,180	1,660	800	850	1,790	230	2,240	78	21	24	11
22	40	850	1,240	850	750	1,480	215	1,360	230	16	16	15
23	62	700	1,000	850	800	1,180	200	1,000	118	13	13	12
24	215	625	900	625	1,240	1,000	200	750	78	12	11	12
25	200	530	750	700	1,660	1,120	188	550	62	10	9.5	12
26	146	470	700	700	1,420	1,720	175	430	53	8.0	6.3	11
27	118	450	700	650	1,300	1,480	170	350	49	7.1	4.8	9.5
28	103	470	1,120	1,930	1,060	1,240	162	305	44	6.3	4.1	7.5
29	96	430	3,900	3,160	------	1,060	188	275	38	4.8	5.5	6.3
30	89	390	2,480	2,240	------	950	200	260	32	4.1	6.3	7.1
31	2,720	------	1,790	1,660	------	850	------	230	------	3.6	4.8	------

Month	Maximum	Minimum	Mean	Per square miles	Run off in inches
October	2,720	16	166	0.223	0.26
November	8,000	275	1,360	1.82	2.03
December	3,900	275	1,120	1.50	1.73
January	3,160	625	1,480	1.98	2.28
February	7,670	750	1,990	2.67	2.78
March	2,560	750	1,320	1.77	2.04
April	750	162	391	.524	.58
May	8,840	148	1,040	1.39	1.60
June	230	32	89.6	.120	.13
July	70	3.6	29.6	.040	.05
August	120	1.0	10.7	.014	.02
September	15	1.1	6.24	.0084	.009
The year	8,840	1.0	743	.996	13.51

NEW RIVER NEAR NEW RIVER, TENN.

LOCATION.—Staff gage at highway bridge 1¼ miles east of New River, Scott County, and 2 miles above mouth of Brimstone Creek. Elevation of zero of gage 1,095.25 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—312 square miles.

RECORDS AVAILABLE.—November, 1922, to September, 1930.

EXTREMES.—Maximum discharge during year, 13,000 second-feet Nov. 17 (gage height, 19.0 feet); minimum, 2.3 second-feet Aug. 16, 17 (gage height, 0.34 foot).

1922–1930: Maximum discharge, determined by slope-area method, about 70,000 second-feet Mar. 23, 1929 (gage height, from high-water mark, 44.8 feet); minimum, 0.2 second-foot Aug. 6, 7, 1925 (gage height, 0.22 foot).

Flood of Mar. 23, 1929, is highest ever known on this river.

REMARKS.—Records good below and fair above 8,000 second-feet.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	28	191	680	520	600	405	79	61	7.8	16	4.2
2	71	1,240	218	640	440	520	388	83	54	7.8	12	4.2
3	61	5,050	233	1,240	422	440	600	59	46	7.2	9.2	4.2
4	52	1,640	249	1,040	1,200	405	1,540	57	40	7.2	8.5	3.9
5	41	760	160	880	3,240	370	1,160	55	33	6.1	7.2	3.5
6	38	422	176	680	1,560	318	960	55	32	6.1	6.1	3.2
7	35	300	176	560	1,160	1,240	760	69	36	6.1	6.1	3.2
8	32	218	422	500	800	2,820	600	204	41	5.1	5.1	4.2
9	29	173	600	440	640	1,640	460	178	38	4.2	4.2	4.2
10	26	176	600	370	560	1,120	388	139	32	4.2	4.2	15
11	21	173	520	300	422	1,440	352	128	26	3.9	3.5	48
12	21	144	460	282	370	1,390	318	119	24	3.5	3.5	151
13	21	460	388	265	2,490	1,240	282	117	21	6.6	3.2	119
14	24	4,250	335	265	3,940	920	249	153	20	12	2.9	91
15	21	10,800	282	265	1,950	720	233	158	16	14	2.9	61
16	15	1,640	680	204	1,200	600	204	148	15	24	2.3	63
17	15	8,680	760	191	920	560	191	126	15	33	2.6	45
18	14	4,890	1,790	191	720	1,890	168	218	15	26	6.6	30
19	13	1,740	3,170	173	600	6,090	153	2,620	15	18	6.1	28
20	19	1,240	1,640	148	500	2,070	139	1,240	12	15	5.1	20
21	15	760	1,120	191	422	1,340	126	760	12	12	4.2	17
22	15	480	840	370	335	920	117	480	21	10	7.2	15
23	18	440	680	480	352	720	112	335	21	8.5	10	14
24	30	388	520	405	2,690	680	108	300	21	8.5	10	15
25	35	335	440	405	1,390	1,290	102	204	16	12	10	17
26	32	282	405	370	1,000	1,790	95	148	13	30	10	18
27	29	300	480	640	800	1,240	91	119	12	33	8.5	25
28	25	282	720	1,000	680	1,000	87	100	12	36	7.2	45
29	25	318	1,740	960	------	760	83	91	10	29	6.1	32
30	25	265	1,160	800	------	600	83	87	8.5	28	6.1	25
31	26	------	880	680	------	480	------	75	------	21	5.1	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	83	13	29.9	0.096	0.11
November	10,800	28	1,600	5.13	5.72
December	3,170	160	711	2.28	2.63
January	1,240	148	504	1.62	1.87
February	3,940	335	1,120	3.59	3.74
March	6,090	318	1,200	3.85	4.44
April	1,540	83	352	1.13	1.26
May	2,620	55	281	.901	1.04
June	61	8.5	24.6	.079	.09
July	36	3.5	14.4	.046	.05
August	16	2.3	6.51	.021	.02
September	151	3.2	31.0	.099	.11
The year	10,800	2.3	484	1.55	21.08

SOUTH FORK OF CUMBERLAND RIVER AT NEVELSVILLE, KY.

LOCATION.—Staff gage one-fourth mile below Turkey Creek Ferry on Greenwood-Monticello Pike, 1 mile west of Nevelsville, McCreary County, and 1¾ miles below mouth of Little South Fork. Elevation of zero of gage 635.57 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—1,260 square miles.

RECORDS AVAILABLE.—March, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 27,200 second-feet Nov. 18 (gage height, 25.05 feet); minimum, 14 second-feet Aug. 17 (gage height, 1.40 feet).

1915–1930: Maximum discharge, about 110,000 second-feet Mar. 23, 1929 (gage height, from high-water mark, 69.0 feet); minimum, 13 second-feet Sept. 3, 1925 (gage height, 1.39 feet).

REMARKS.—Records good. Operation of small power plant short distance above gage may affect flow at extremely low water.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	380	490	1,090	2,080	2,010	2,010	2,290	445	422	82	78	43
2	360	1,270	1,090	2,010	1,870	1,870	2,290	400	360	124	46	38
3	286	14,600	910	2,730	1,660	1,730	3,290	380	320	135	48	36
4	286	8,190	850	3,050	4,280	1,450	4,770	380	286	115	46	33
5	254	3,560	795	2,730	11,000	1,390	3,290	360	270	100	44	30
6	224	2,150	850	2,290	7,180	1,330	3,050	360	270	82	43	27
7	210	1,210	1,210	2,010	5,410	2,010	2,890	400	468	66	40	25
8	196	1,210	1,870	2,080	3,380	9,490	2,290	400	360	64	33	24
9	170	1,030	1,870	2,360	3,130	5,860	1,870	910	320	60	28	19
10	168	910	1,870	2,220	2,890	3,380	1,520	850	270	57	27	16
11	158	795	1,800	2,010	1,870	3,050	1,390	970	254	48	25	490
12	144	850	1,520	1,590	1,590	6,100	1,270	1,090	210	41	22	360
13	139	1,940	1,390	1,450	11,700	4,770	1,030	1,210	183	50	17	224
14	126	3,740	1,330	1,660	20,400	3,560	910	1,390	170	60	22	360
15	124	20,400	1,150	1,730	7,300	2,810	910	1,330	153	82	20	490
16	113	5,300	1,210	1,660	3,560	2,010	910	1,030	146	69	16	286
17	104	13,500	2,220	1,450	4,100	2,010	850	850	133	113	14	224
18	102	18,800	3,830	1,330	3,130	1,870	740	445	128	90	78	170
19	98	7,300	8,060	1,150	2,570	25,600	740	10,800	124	78	254	153
0	98	3,050	5,520	1,030	2,430	9,620	660	5,740	124	71	196	131
21	100	2,730	3,290	1,090	1,870	6,700	610	3,380	133	80	126	113
22	146	2,010	2,650	1,150	1,590	4,470	585	2,150	135	75	104	100
23	210	1,450	2,360	1,800	2,010	3,130	585	1,590	137	62	82	92
24	196	1,660	2,220	1,590	4,010	2,650	490	1,450	131	59	68	84
25	224	1,450	2,150	1,450	4,190	2,970	468	1,270	122	48	78	80
26	196	1,390	1,590	1,390	3,210	6,220	445	1,090	113	44	71	66
27	183	1,450	1,590	1,730	2,650	3,560	445	740	106	41	55	82
28	170	1,390	2,080	3,740	2,220	3,210	422	635	106	40	53	124
29	183	1,390	5,080	3,650	-------	2,650	422	560	94	40	46	104
30	303	1,210	3,560	2,290	-------	2,290	422	560	68	53	43	88
31	560	-------	3,050	2,220	-------	2,290	-------	490	-------	80	44	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	560	98	200	0.159	0.18
November	20,400	490	4,210	3.34	3.73
December	8,060	795	2,260	1.79	2.06
January	3,740	1,030	1,960	1.56	1.80
February	20,400	1,590	4,400	3.49	3.63
March	25,600	1,330	4,260	3.38	3.90
April	4,770	422	1,400	1.11	1.24
May	10,800	360	1,410	1.12	1.29
June	468	68	204	.162	.18
July	135	40	71.3	.057	.06
August	254	14	60.2	.048	.06
September	490	16	137	.109	.12
The year	25,600	14	1,690	1.34	18.25

OBEY RIVER NEAR BYRDSTOWN, TENN.

LOCATION.—Chain gage at highway bridge 1½ miles above mouth of Eagle Creek and 3½ miles southwest of Byrdstown, Pickett County. Elevation of zero of gage 575.23 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—452 square miles.

RECORDS AVAILABLE.—March, 1919, to September, 1930.

EXTREMES.—Maximum discharge during year, 13,800 second-feet Mar. 19 (gage height, 18.8 feet); minimum, 12 second-feet Sept. 7 (gage height, 1.26 feet).

1919–1930: Maximum discharge, about 35,000 second-feet June 29, 1928, Mar. 23, 1929 (gage height, 35.9 feet); minimum, 7 second-feet Nov. 3, 1920 (gage height, 0.90 foot).

REMARKS.—Records good between 100 and 4,000 second-feet; others fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	145	400	400	800	750	750	700	160	125	48	14	17
2	118	400	400	700	700	750	650	136	110	46	14	15
3	98	5,660	360	1,410	625	650	905	184	100	37	15	17
4	88	2,560	360	1,180	650	625	3,050	154	80	[a] 31	16	16
5	74	1,290	280	960	3,470	600	1,830	148	76	25	15	15
6	98	800	300	800	2,490	555	1,350	136	142	28	17	14
7	85	625	360	700	1,650	650	1,120	130	105	23	15	12
8	74	490	440	650	1,180	2,700	850	142	110	23	14	14
9	70	440	510	1,020	960	2,140	750	154	100	21	21	15
10	74	380	555	905	800	1,530	650	184	92	19	23	15
11	70	380	530	800	[a] 712	2,140	580	204	80	19	21	31
12	60	510	465	700	625	3,470	510	300	76	23	17	80
13	60	555	465	700	3,330	1,950	465	260	68	25	14	60
14	56	3,680	440	750	10,800	1,410	440	240	60	145	17	28
15	54	5,840	420	1,120	3,540	1,070	420	300	60	56	19	23
16	52	2,700	1,180	960	2,140	905	380	280	56	37	17	30
17	48	2,490	1,290	700	1,590	750	360	225	52	34	15	25
18	40	4,000	2,070	700	1,240	750	340	240	60	31	190	23
19	37	2,010	1,830	580	1,020	12,500	280	1,410	52	25	115	21
20	34	1,240	1,410	510	850	3,840	260	1,410	48	23	48	19
21	34	905	1,020	510	700	2,140	260	850	50	21	31	19
22	120	650	800	700	625	1,530	240	600	48	20	34	18
23	148	600	750	650	750	1,180	225	490	44	23	40	17
24	160	555	650	600	1,470	1,020	225	340	42	23	37	17
25	178	530	580	580	1,290	1,530	204	300	40	22	28	19
26	130	530	555	555	1,120	2,210	197	225	28	19	23	19
27	120	530	555	555	960	1,650	190	197	25	20	21	18
28	102	580	700	1,470	850	1,350	184	160	23	18	20	19
29	102	530	1,240	1,350	-------	1,120	172	154	25	17	19	19
30	151	465	1,120	1,120	-------	960	172	148	23	15	17	18
31	420	-------	960	960	-------	800	-------	130	-------	17	[a] 17	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	420	34	100	0.221	0.25
November	5,840	380	1,410	3.12	3.48
December	2,070	280	742	1.64	1.89
January	1,470	510	829	1.83	2.11
February	10,800	625	1,670	3.69	3.84
March	12,500	555	1,780	3.94	4.54
April	3,050	172	599	1.33	1.48
May	1,410	130	322	.712	.82
June	142	23	66.7	.148	.17
July	145	15	30.1	.067	.08
August	190	14	29.8	.066	.08
September	80	12	22.4	.050	.06
The year	12,500	12	627	1.39	18.80

[a] Interpolated.

CANEY FORK NEAR ROCK ISLAND, TENN.

LOCATION.—Water-stage recorder, installed Nov. 28, 1929, 180 feet below power house of Tennessee Electric Power Co., half a mile below dam at mouth of Collins River, and 1 mile northwest of Rock Island, Warren County. Gage datum lowered 2.00 feet Sept. 10, 1930. Elevation of zero of present gage, 647.46 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—1,640 square miles.

RECORDS AVAILABLE.—November, 1911, to March, 1924; April, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 51,400 second-feet Feb. 14 (gage height, 22.0 feet, original datum); minimum discharge, 102 second-feet Sept. 30, represents leakage below dam when power plant was shut down.

1911–1930: Maximum discharge, about 210,000 second-feet Mar. 23, 1929 (gage height, 40.6 feet, present datum); minimum, 45 second-feet, represents leakage prior to raising of dam in 1925.

REMARKS.—Records good Nov. 29 to Aug. 10, Sept. 2–30; others fair. Discharge Oct. 1 to Nov. 28 determined from flow through turbines at power house, spillway discharge, and leakage at dam. Flow for most of year almost completely regulated by dam and power plant.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,280	1,300	1,840	3,190	2,920	4,580	3,380	1,100	188	631	122	142
2	670	1,500	2,780	3,740	475	4,220	3,280	1,480	2,160	549	118	219
3	690	20,600	2,950	8,090	2,530	3,580	5,400	1,040	1,870	517	120	229
4	635	11,000	2,830	7,010	2,990	3,540	10,400	122	1,640	116	123	190
5	900	6,530	2,920	5,060	2,780	3,300	6,290	1,220	1,440	145	124	250
6	150	4,790	2,850	3,840	8,060	3,190	6,130	862	1,080	110	128	200
7	1,230	3,250	2,720	3,840	6,220	12,400	3,920	1,070	425	756	130	150
8	1,210	3,250	995	3,310	4,140	17,400	4,540	998	310	812	520	172
9	1,140	3,130	2,940	3,340	3,660	11,000	3,250	1,100	1,570	778	252	148
10	1,120	765	3,190	3,520	3,120	7,060	3,200	562	1,160	636	134	171
11	1,120	2,510	3,180	2,820	3,080	12,700	3,160	175	1,060	570	165	121
12	480	2,870	2,900	2,380	2,830	11,300	2,920	975	1,060	116	260	384
13	150	3,210	2,900	2,820	17,300	8,540	880	1,060	974	124	255	205
14	675	10,600	2,960	2,820	29,600	6,540	2,480	1,300	410	680	985	146
15	600	26,700	1,180	2,800	12,700	4,520	3,200	1,180	297	887	660	514
16	647	15,500	2,620	2,800	9,580	4,800	3,180	1,050	670	644	365	492
17	480	20,000	2,980	2,800	7,530	3,200	3,210	948	738	281	382	862
18	601	16,300	3,520	2,560	4,820	6,600	3,140	486	608	324	356	1,020
19	396	9,380	5,440	745	4,890	19,400	2,830	2,390	520	310	929	1,110
20	184	6,050	5,600	2,520	3,710	14,200	550	4,380	354	197	851	975
21	865	4,600	3,100	2,790	3,600	9,060	2,540	4,670	272	207	456	475
22	970	3,600	4,040	2,840	3,200	6,660	2,670	3,760	164	198	136	1,750
23	795	3,240	2,840	2,870	5,760	4,660	1,960	3,020	784	366	254	826
24	925	3,100	2,850	2,860	12,400	7,540	2,420	2,630	628	262	156	822
25	1,080	2,760	2,340	2,740	8,800	9,300	2,890	1,420	638	278	214	805
26	500	3,050	3,540	1,160	6,740	9,100	2,680	2,720	991	172	191	820
27	150	3,310	2,440	2,450	6,550	7,050	875	2,700	308	131	292	702
28	1,100	3,210	3,820	2,720	5,040	6,360	2,920	2,790	252	561	244	575
29	1,070	3,530	7,240	2,860	-------	4,500	2,410	2,920	110	326	325	1,320
30	890	3,020	4,540	2,940	-------	4,320	1,260	2,980	539	223	560	1,040
31	935	-------	5,240	3,160	-------	3,800	-------	2,750	-------	126	217	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,280	150	763	0.465	0.54
November	26,700	765	6,760	4.12	4.60
December	7,240	995	3,270	1.99	2.29
January	8,090	745	3,210	1.96	2.26
February	29,600	475	6,610	4.03	4.20
March	19,400	3,190	7,560	4.61	5.32
April	10,400	550	3,270	1.99	2.22
May	4,670	122	1,800	1.10	1.27
June	2,160	110	774	.472	.53
July	887	110	386	.235	.27
August	985	118	323	.197	.23
September	1,750	121	561	.342	.38
The year	29,600	110	2,910	1.77	24.11

CANEY FORK NEAR SILVER POINT, TENN.

LOCATION.—Water-stage recorder at Johnson's ferry, 4 miles south of Silver Point, Putnam County, and 4 miles below mouth of Falling Water River. Elevation of zero of gage, 497.60 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—2,100 square miles.

RECORDS AVAILABLE.—November, 1922, to September, 1930.

EXTREMES.—Maximum discharge during year, 46,300 second-feet Feb. 14 (gage height, 25.3 feet); minimum, 190 second-feet Sept. 3 (gage height, 1.08 feet).

1922–1930: Maximum discharge, about 220,000 second-feet Mar. 23, 1929, determined by slope-area method (gage height, 60.1 feet); minimum, 25 second-feet on several days in November, 1924, and August, September, and October, 1925 (gage height, 0.00 foot).

Flood of Mar. 23, 1929, reached highest stage known.

REMARKS.—Records good. Gage-height record based on one or two daily readings of staff gage Apr. 5–8, June 6–9, 15, July 15, 28, Sept. 6–10. Flow largely regulated by Great Falls hydroelectric plant near Rock Island and to slight extent by small plant on Falling Water River.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,320	1,270	2,850	4,180	3,580	5,150	4,010	1,560	2,540	630	308	225
2	1,470	5,250	2,600	4,040	2,620	5,650	3,830	1,490	664	879	232	219
3	867	7,470	3,040	6,890	1,300	3,510	5,380	1,720	2,290	732	222	201
4	814	16,300	3,080	8,510	4,960	3,960	11,600	1,290	2,110	664	204	253
5	771	8,460	3,130	6,490	4,770	3,770	8,790	528	1,840	309	204	300
6	946	7,300	3,180	5,600	7,680	3,620	6,780	1,300	1,650	273	207	232
7	412	4,730	3,050	4,460	7,240	8,640	5,720	1,180	1,360	264	210	232
8	1,290	4,040	2,750	4,070	5,520	23,700	4,450	1,480	800	840	207	300
9	1,380	3,920	1,780	4,400	5,020	15,300	4,240	1,400	625	981	556	225
10	1,320	2,990	3,130	4,450	3,610	9,200	3,670	1,480	1,680	892	376	289
11	1,230	1,620	3,140	3,780	3,640	11,200	3,570	1,130	1,410	792	260	584
12	1,250	3,270	3,110	3,460	3,380	16,200	3,300	626	1,320	746	210	378
13	710	4,100	3,120	2,940	12,600	11,100	2,740	1,250	1,280	320	304	670
14	332	5,110	3,300	3,560	41,800	7,530	1,570	1,410	1,210	320	418	400
15	708	24,700	3,020	3,600	25,600	6,640	3,340	1,600	710	1,060	1,400	338
16	726	28,100	2,650	3,450	12,900	5,120	3,410	1,570	592	994	646	594
17	760	19,000	4,360	3,380	9,970	4,150	3,430	1,600	915	840	440	637
18	593	25,900	5,300	3,200	6,440	8,040	3,370	1,500	1,020	474	1,420	978
19	748	15,000	6,920	2,640	6,010	23,500	3,200	2,930	885	784	644	1,140
20	544	8,720	6,370	1,580	4,860	20,900	2,370	3,920	758	446	754	1,270
21	490	6,670	4,600	3,240	4,170	12,400	1,140	6,330	618	376	743	1,180
22	1,630	4,680	4,360	3,360	4,000	9,640	3,000	4,290	524	338	502	672
23	1,460	4,200	3,710	3,270	4,660	6,250	2,400	3,620	387	318	280	1,920
24	1,220	3,910	3,530	3,200	13,900	5,720	2,120	3,160	991	623	236	981
25	1,180	3,590	2,950	3,140	10,200	7,800	3,000	2,670	861	478	258	1,010
26	1,250	3,730	3,780	2,990	8,450	9,880	2,980	1,940	880	476	220	1,150
27	801	3,730	3,120	1,940	6,870	9,200	2,430	2,960	1,240	335	277	958
28	366	4,570	3,550	3,600	6,360	7,220	1,630	2,940	962	380	261	852
29	1,160	4,460	6,570	3,580	-------	5,730	3,220	3,080	522	564	324	722
30	1,450	3,450	7,020	3,540	-------	5,520	2,030	3,120	299	1,090	268	1,540
31	1,420	-------	5,240	3,660	-------	4,440	-------	3,000	-------	490	250	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,630	332	988	0.470	0.54
November	28,100	1,270	8,010	3.81	4.25
December	7,020	1,780	3,820	1.82	2.10
January	8,510	1,580	3,880	1.85	2.13
February	41,800	1,300	8,290	3.95	4.11
March	23,700	3,510	9,050	4.31	4.97
April	11,600	1,140	3,760	1.79	2.00
May	6,330	528	2,200	1.05	1.21
June	2,540	299	1,100	.524	.58
July	1,090	264	603	.287	.33
August	1,420	204	414	.197	.23
September	1,920	201	682	.325	.36
The year	41,800	201	3,530	1.68	22.81

COLLINS RIVER NEAR McMINNVILLE, TENN.

LOCATION.—Water-stage recorder at highway bridge half a mile below mouth of Barren Fork and 2½ miles northeast of McMinnville, Warren County. Elevation of zero of gage 823.77 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—624 square miles.

RECORDS AVAILABLE.—April, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 13,000 second-feet Nov. 15 (gage height, 14.0 feet); minimum, 35 second-feet Sept. 21 (gage height, 0.74 foot).

1925–1930: Maximum discharge, about 75,300 second-feet Mar. 23, 1929 (gage height, 39.1 feet); minimum, that of Sept. 21, 1930.

Maximum stage known, that of Mar. 23, 1929.

REMARKS.—Records fair for September and good for remainder of year. Chain gage record used Apr. 12–21 and May 24–31. Considerable regulation during low water caused by operation of power plant on Barren Fork at McMinnville.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	325	928	928	1,220	628	1,760	1,070	319	313	125	112	84
2	292	4,830	900	1,250	628	1,640	1,070	304	289	123	112	83
3	253	7,790	1,070	2,870	628	1,420	2,240	310	283	121	103	89
4	230	4,940	982	2,330	1,600	1,220	2,870	322	268	105	98	89
5	228	2,870	845	1,840	3,350	1,130	2,160	319	256	107	91	73
6	225	1,960	820	1,530	2,600	1,070	1,800	325	256	112	93	84
7	232	1,460	820	1,280	1,920	5,890	1,500	304	403	140	89	72
8	232	1,160	982	1,160	1,530	7,530	1,220	304	403	238	89	72
9	212	982	1,040	1,190	1,220	4,170	1,040	439	325	165	96	73
10	200	845	928	1,040	1,070	2,780	900	596	280	132	107	76
11	180	795	872	955	955	4,830	820	928	250	130	93	[a] 160
12	178	720	820	900	928	4,280	770	745	225	136	86	[a] 112
13	170	900	770	900	4,830	3,050	720	605	220	129	93	168
14	170	3,550	720	720	9,960	2,330	695	569	208	105	96	154
15	162	11,800	672	720	5,290	1,880	650	1,040	188	108	140	119
16	160	7,010	650	720	3,350	1,560	605	982	172	121	117	202
17	148	6,880	720	650	2,510	1,390	569	872	195	114	107	80
18	150	6,130	2,080	596	2,080	1,640	546	795	188	112	112	46
19	146	3,650	1,920	560	1,680	5,650	503	3,350	185	114	112	[a] 89
20	144	2,510	1,530	528	1,460	4,720	463	2,960	188	114	107	[a] 160
21	195	1,840	1,250	533	1,250	3,050	443	2,080	180	110	94	55
22	479	1,530	1,220	720	1,130	2,330	435	1,390	178	108	94	140
23	650	1,390	1,190	745	2,780	1,880	411	1,040	165	110	98	100
24	650	1,320	1,070	672	4,280	1,600	388	955	156	107	93	103
25	503	1,220	955	605	3,050	2,780	370	872	170	110	86	218
26	423	1,250	1,010	596	2,510	3,050	367	672	138	277	83	[a] 265
27	356	1,600	1,070	605	2,420	2,510	342	578	148	130	81	[a] 185
28	310	1,600	1,460	745	2,000	2,080	342	499	150	108	78	134
29	292	1,360	2,000	770	------	1,760	336	447	138	116	78	114
30	475	1,130	1,760	720	------	1,460	319	392	125	144	76	72
31	955	------	1,500	672	------	1,250	------	356	------	93	78	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	955	144	301	0.482	0.56
November	11,800	720	2,860	4.58	5.11
December	2,080	650	1,110	1.78	2.05
January	2,870	528	979	1.57	1.81
February	9,960	628	2,420	3.88	4.04
March	7,530	1,070	2,700	4.33	4.99
April	2,870	319	865	1.39	1.55
May	3,350	304	828	1.33	1.53
June	403	125	221	.354	.40
July	277	93	128	.205	.24
August	140	76	96.5	.155	.18
September	265	46	116	.186	.21
The year	11,800	46	1,040	1.67	22.67

[a] Estimated.

STONE RIVER NEAR SMYRNA, TENN.

LOCATION.—Water-stage recorder at highway bridge at Jefferson Springs, 1 mile below confluence of East and West Forks and 4 miles east of Smyrna, Rutherford County. Elevation of zero of gage 457.78 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—552 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 20,200 second-feet Feb. 13 (gage height, 20.7 feet); minimum, 6 second-feet Sept. 8 (gage height, 0.76 foot).

1925–1930: Maximum discharge, about 37,600 second-feet Mar. 23, 1929 (gage height, 36.5 feet); minimum, 0.8 second-foot Aug. 17, 22, 1925 (gage height, 0.50 foot).

REMARKS.—Records good between 60 and 10,000 second-feet; fair beyond those limits. Discharge based on staff gage readings Mar. 13–16. Low-water flow regulated by operation of small power developments on both forks.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	850	513	920	690	920	549	97	221	37	68	15
2	80	2,940	465	1,920	627	1,030	507	157	209	25	52	45
3	50	3,930	438	3,380	585	899	3,770	174	182	45	25	12
4	30	2,070	410	1,780	4,770	815	2,720	197	168	47	22	14
5	52	1,230	306	1,350	3,270	710	1,470	213	126	34	22	17
6	43	843	370	1,070	1,920	697	1,650	168	375	17	27	12
7	56	615	400	892	1,470	6,520	1,150	94	356	30	43	8
8	47	489	1,190	1,520	1,150	3,270	871	118	171	32	22	7
9	56	410	1,190	2,830	935	1,970	710	306	136	22	18	9
10	56	360	892	1,780	808	1,520	609	857	122	22	20	12
11	60	266	752	1,390	704	5,410	525	1,780	143	43	17	47
12	43	342	645	1,150	633	2,720	465	766	80	45	10	65
13	24	988	549	1,030	12,300	1,780	432	531	106	39	16	82
14	24	3,050	477	2,620	7,580	1,350	400	385	109	39	20	68
15	39	4,810	460	2,720	3,160	1,070	360	297	58	32	41	68
16	41	2,720	454	1,740	2,120	950	346	342	75	58	70	47
17	21	4,810	465	1,310	1,700	829	400	421	109	50	72	60
18	24	2,720	2,070	1,070	1,350	3,800	248	465	103	22	88	29
19	37	1,700	1,700	864	1,150	5,920	238	4,840	80	52	97	52
20	30	1,230	1,270	752	972	2,470	213	2,620	97	29	60	25
21	29	935	995	710	850	1,700	225	1,470	80	22	54	25
22	2,720	808	878	871	759	1,310	201	995	78	17	52	16
23	1,110	738	794	724	3,710	1,070	185	759	85	17	22	14
24	525	843	745	609	2,720	920	185	1,560	80	18	21	17
25	342	1,070	710	561	1,780	1,470	171	928	56	17	18	39
26	270	1,150	892	501	1,430	1,350	168	678	80	18	17	20
27	126	1,110	958	928	1,190	1,070	136	525	50	47	45	54
28	143	920	2,220	1,830	1,030	950	160	385	56	20	22	39
29	115	724	1,970	1,150	------	780	185	346	56	21	17	27
30	1,230	585	1,430	958	------	690	160	320	72	41	12	58
31	1,650	------	1,150	822	------	609	------	288	------	37	12	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,720	21	296	0.536	0.62
November	4,810	266	1,510	2.74	3.06
December	2,220	306	895	1.62	1.87
January	3,380	501	1,350	2.45	2.82
February	12,300	585	2,190	3.97	4.14
March	6,520	609	1,820	3.30	3.80
April	3,770	136	647	1.17	1.30
May	4,840	94	745	1.35	1.56
June	375	50	124	.225	.25
July	58	17	32.1	.058	.07
August	97	10	35.5	.064	.07
September	82	7	33.4	.061	.07
The year	12,300	7	798	1.45	19.63

HARPETH RIVER NEAR KINGSTON SPRINGS, TENN.

LOCATION.—Staff gage just above bridge on State Highway 1, 2 miles northeast of Kingston Springs, Cheatham County, and 3 miles below mouth of Turnbull Creek. Elevation of zero of gage 445.81 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—687 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 17,700 second-feet May 18 (gage height, 17.9 feet); minimum, 32 second-feet Sept. 6, 7 (gage height, 0.47 foot).

1925–1930: Maximum discharge, about 32,500 second-feet Mar. 13, 1927 (gage height, about 28.0 feet); minimum, 18 second-feet Sept. 9, 10, 1925.

REMARKS.—Records good except those above 5,000 second-feet and below 40 second-feet, which are fair. Slight regulation during low-water season caused by operation of milldam at Newsom, 15 miles upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	160	485	930	930	1,200	800	214	342	62	100	51
2	66	3,400	460	832	930	1,060	865	201	280	62	71	46
3	59	2,040	435	2,830	832	930	1,640	201	280	62	59	44
4	54	1,340	365	1,800	3,200	865	2,470	210	238	62	54	44
5	58	930	320	1,410	4,650	800	1,480	207	220	62	45	38
6	81	710	342	1,200	2,560	800	1,340	192	231	56	42	33
7	85	538	388	930	1,960	4,650	1,060	172	262	49	40	32
8	66	460	485	6,040	1,640	4,000	930	201	214	51	37	122
9	59	388	740	9,640	1,340	2,560	832	2,920	189	49	40	68
10	64	320	650	3,900	1,200	1,960	740	1,960	175	49	55	66
11	68	342	565	2,470	995	6,520	680	2,380	165	47	43	170
12	60	388	510	2,040	930	4,000	620	1,200	155	46	70	435
13	56	2,120	460	1,960	7,960	2,290	565	832	150	66	204	1,130
14	52	4,540	435	4,870	9,880	1,960	565	800	139	64	995	1,410
15	54	2,830	435	5,440	4,210	1,640	538	650	132	64	995	995
16	50	1,960	435	3,010	2,650	1,340	485	565	128	79	565	214
17	46	2,040	388	2,200	2,120	1,200	460	710	155	74	365	146
18	45	1,720	435	1,640	1,800	4,650	460	9,400	146	64	995	117
19	44	1,270	740	1,340	1,480	10,600	410	7,000	146	52	300	103
20	43	995	620	1,200	1,270	2,920	365	2,830	128	46	170	96
21	207	832	592	1,060	1,130	2,290	342	1,800	139	46	144	81
22	300	740	565	1,340	1,130	1,960	320	1,270	198	39	111	78
23	320	650	485	1,060	1,130	1,640	300	1,060	115	42	68	66
24	224	620	460	930	2,470	1,480	280	1,410	107	39	59	71
25	178	620	485	865	1,800	2,560	262	1,560	96	109	54	68
26	137	620	565	800	1,560	1,960	262	1,130	83	231	51	62
27	109	650	592	995	1,410	1,480	245	710	76	198	51	56
28	103	620	1,800	1,960	1,270	1,270	245	592	72	83	47	54
29	103	565	1,880	1,640	-------	1,060	245	510	72	65	44	51
30	242	510	1,340	1,270	-------	995	231	460	62	207	46	49
31	224	-------	1,060	1,130	-------	930	-------	388	-------	111	54	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	320	43	108	0.157	0.18
November	4,540	160	1,160	1.69	1.89
December	1,880	320	630	.917	1.06
January	9,640	800	2,220	3.23	3.72
February	9,880	832	2,300	3.35	3.49
March	10,600	800	2,370	3.45	3.98
April	2,470	231	668	.972	1.08
May	9,400	172	1,410	2.05	2.36
June	342	62	163	.237	.26
July	231	39	75.4	.110	.13
August	995	37	193	.281	.32
September	1,410	32	200	.291	.32
The year	10,600	32	952	1.39	18.79

RED RIVER NEAR ADAMS, TENN.

LOCATION.—Water-stage recorder half a mile below mouth of Elk Creek and 1½ miles northwest of Adams, Robertson County. Elevation of zero of gage 396.32 feet (United States Engineer Department datum of 1889).

DRAINAGE AREA.—678 square miles.

RECORDS AVAILABLE.—June, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 9,740 second-feet Jan. 9 (gage height, 15.76 feet); minimum, 37 second-feet Sept. 10 (gage height, 1.50 feet).

1920–1930: Maximum discharge, about 20,800 second-feet Dec. 22, 1926 gage height, 31.0 feet); minimum, 23 second-feet Sept. 10, 1925 (gage height, 1.28 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	528	245	1,240	1,560	a 1,280	506	260	494	138	55	53
2	87	1,990	241	1,140	1,420	a 1,210	522	252	445	142	77	48
3	77	1,740	a 264	1,560	a 1,350	a 1,140	711	241	425	129	77	48
4	68	1,140	a 202	1,420	a 3,270	a 1,040	a 965	241	377	120	55	48
5	77	852	a 145	1,180	a 6,140	a 965	a 806	238	368	103	62	48
6	87	657	a 164	1,100	a 4,620	a 898	a 735	234	364	112	57	48
7	87	567	209	a 1,070	a 3,270	a 930	a 675	227	400	100	66	46
8	82	489	216	a 6,280	2,490	1,000	a 615	220	359	98	64	44
9	73	430	223	a 8,580	2,060	865	a 555	212	338	100	55	51
10	64	386	245	a 4,980	1,850	754	a 489	249	326	93	53	39
11	70	368	241	a 3,910	1,600	735	a 462	368	306	93	53	93
12	66	342	238	a 3,130	1,420	787	435	330	290	123	57	151
13	57	334	a 234	a 3,620	3,690	735	425	279	283	70	57	209
14	68	342	227	a 3,980	3,620	675	415	579	271	112	64	230
15	64	930	256	4,260	2,630	a 639	405	382	267	198	73	164
16	70	865	567	3,270	2,200	a 621	386	342	264	161	75	118
17	77	723	a 748	2,700	1,920	a 735	377	302	264	135	93	103
18	66	711	a 1,240	2,630	1,670	a 852	368	2,560	260	126	338	82
19	68	633	a 2,490	1,920	1,490	2,060	386	7,940	252	103	350	68
20	51	533	a 1,430	1,640	1,350	1,430	377	3,550	241	95	191	66
21	115	456	1,040	1,560	1,210	1,210	350	2,200	219	98	138	68
22	425	410	a 852	a 1,600	1,100	1,040	338	1,670	203	82	112	62
23	368	390	a 754	a 1,390	a 1,180	898	326	1,320	197	93	95	53
24	256	372	a 729	1,210	a 1,850	a 846	318	1,460	191	80	82	53
25	178	359	a 675	1,140	a 1,990	a 806	302	1,100	184	75	75	59
26	151	338	a 627	1,070	a 1,850	a 787	287	898	223	93	64	48
27	132	326	a 633	1,210	a 1,670	717	287	800	203	118	70	41
28	115	318	1,490	2,980	a 1,460	639	283	705	177	103	66	46
29	109	298	2,270	2,700	-------	597	279	639	153	90	62	44
30	245	271	1,780	2,130	-------	567	267	579	145	123	53	48
31	467	-------	1,490	1,780	-------	533	-------	544	-------	50	53	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	467	51	129	0.190	0.22
November	1,990	271	603	.889	.99
December	2,490	145	715	1.05	1.21
January	8,580	1,070	2,530	3.73	4.30
February	6,140	1,100	2,210	3.26	3.40
March	2,060	533	903	1.33	1.53
April	965	267	455	.671	.75
May	7,940	212	997	1.47	1.70
June	494	145	283	.417	.47
July	198	50	108	.159	.18
August	350	53	91.7	.135	.16
September	230	39	76.0	.112	.12
The year	8,580	39	751	1.11	15.03

a Estimated.

TENNESSEE RIVER BASIN

FRENCH BROAD RIVER AT CALVERT, N. C.

LOCATION.—Staff gage at highway bridge 1 mile downstream from mouth of East Fork and 1 mile southeast of railroad station at Calvert, Transylvania County.

DRAINAGE AREA.—104 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,720 second-feet Oct. 2 (gage height, 4.90 feet); minimum, 67 second-feet Aug. 30 to Sept. 5 (gage height, 0.40 foot).

1924–1930: Maximum discharge (estimated), 16,100 second-feet Aug. 15, 1928 (gage height, 13.0 feet); minimum, 54 second-feet Sept. 17–23, 1925 (gage height, 0.28 foot).

Maximum stage known, 18.3 feet July, 1916.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,180	580	424	348	287	238	246	191	185	141	99	67
2	1,720	717	717	348	296	231	238	188	179	136	96	67
3	860	1,240	501	348	310	224	300	191	179	132	92	67
4	717	980	450	348	980	217	254	194	179	127	88	67
5	662	689	450	314	745	217	242	191	182	122	85	67
6	580	607	424	314	424	217	450	203	242	122	83	85
7	527	554	424	373	373	1,120	318	203	220	165	80	75
8	501	554	424	348	348	527	270	398	210	141	85	83
9	450	501	398	314	323	424	270	254	242	122	92	90
10	424	475	398	314	323	373	266	228	182	116	92	88
11	398	501	373	314	310	373	254	292	173	114	85	734
12	398	802	373	314	296	373	246	314	170	109	78	228
13	398	745	373	314	300	314	238	300	197	105	77	146
14	348	717	373	323	305	305	238	634	194	105	75	122
15	348	980	348	554	300	296	231	398	188	105	90	124
16	348	802	348	398	292	287	231	318	170	129	80	122
17	323	802	348	373	278	296	224	300	197	129	75	129
18	310	717	424	348	270	348	318	292	191	129	83	118
19	292	634	580	323	262	398	246	424	173	122	96	246
20	274	580	424	310	262	323	234	318	162	112	88	173
21	1,000	554	373	323	254	314	228	274	157	103	146	217
22	792	527	398	373	254	323	224	258	151	101	124	160
23	527	527	398	323	266	310	217	287	149	101	101	134
24	450	527	398	310	254	292	214	254	154	99	92	124
25	424	501	373	296	246	300	210	238	173	97	85	116
26	398	607	348	287	246	278	203	228	160	97	81	182
27	398	527	348	287	246	270	203	214	149	97	80	139
28	373	501	373	300	238	270	200	206	139	99	78	122
29	398	450	398	292	------	262	197	203	136	105	75	114
30	398	424	373	287	------	254	197	197	141	144	69	109
31	450	------	348	282	------	250	------	191	------	103	67	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,720	274	538	5.17	5.96
November	1,240	424	644	6.19	6.91
December	717	348	410	3.94	4.54
January	554	282	332	3.19	3.68
February	980	238	332	3.19	3.32
March	1,120	217	330	3.17	3.66
April	450	197	247	2.37	2.64
May	634	188	270	2.60	3.00
June	242	136	177	1.70	1.90
July	165	97	117	1.12	1.29
August	146	67	87.6	.842	.97
September	734	67	144	1.38	1.54
The year	1,720	67	302	2.90	39.41

FRENCH BROAD RIVER AT BLANTYRE, N. C.

LOCATION.—Water-stage recorder at highway bridge 700 feet east of Blantyre railroad station, Transylvania County, and 3 miles downstream from mouth of Little River. Chain gage at same location used prior to July 5.

DRAINAGE AREA.—296 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,420 second-feet Oct. 2 (gage height, 16.7 feet); minimum, 210 second-feet Sept. 1–3 (gage height, 2.45 feet).

1920–1930: Maximum discharge (estimated), 26,500 second-feet Aug. 16, 1928 (gage height, 22.9 feet); minimum, 143 second-feet Sept. 21, 1925 (gage height, 1.83 feet).

REMARKS.—Records good. Slight diurnal fluctuation during low-water periods probably due to operation of small mills on tributaries.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,400	1,390	1,060	914	726	626	626	509	509	423	327	226
2	5,180	1,660	1,390	914	752	602	626	509	509	383	309	226
3	4,860	2,440	1,450	971	832	602	650	532	487	383	309	226
4	2,600	2,880	1,240	886	1,620	578	650	532	487	345	309	226
5	1,900	1,980	1,150	832	2,010	578	626	509	487	364	309	275
6	1,700	1,620	1,120	832	1,240	578	942	626	578	383	309	309
7	1,480	1,450	1,090	859	1,090	2,520	859	650	626	383	292	275
8	1,360	1,450	1,150	886	971	1,870	726	752	555	383	345	309
9	1,240	1,330	1,060	859	914	1,210	675	971	602	345	292	345
10	1,150	1,240	1,030	832	886	1,030	650	726	555	327	275	364
11	1,090	1,240	1,030	832	832	971	626	778	487	345	275	2,070
12	1,030	1,620	971	778	805	914	626	1,120	465	327	258	1,040
13	1,000	2,010	942	778	805	832	626	1,420	487	345	242	602
14	971	1,940	942	805	832	805	602	1,590	555	364	258	634
15	914	2,360	914	1,120	805	778	602	1,300	509	345	275	639
16	886	2,200	914	1,090	752	752	602	971	487	383	275	487
17	859	1,900	886	914	726	700	578	914	487	364	242	578
18	832	2,160	1,120	886	726	700	700	805	532	493	275	465
19	805	1,730	1,520	832	675	832	700	1,090	465	390	309	561
20	805	1,560	1,150	805	700	859	602	942	423	345	275	726
21	2,040	1,420	1,030	805	675	778	602	805	444	309	309	820
22	4,400	1,360	1,000	859	675	778	578	752	465	309	423	650
23	2,320	1,390	1,030	805	675	778	578	778	423	513	309	509
24	1,560	1,360	942	805	700	726	555	778	403	465	275	465
25	1,330	1,420	914	778	675	752	555	675	487	345	258	473
26	1,210	1,480	886	752	650	726	532	602	383	309	258	650
27	1,120	1,390	914	726	626	650	532	602	444	309	258	509
28	1,090	1,270	1,060	752	626	675	532	602	403	327	242	423
29	1,060	1,180	1,120	752	------	650	555	555	383	345	242	383
30	1,090	1,120	1,030	805	------	650	532	555	423	327	226	364
31	1,150	------	971	752	------	626	------	532	------	364	226	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,180	805	1,690	5.71	6.58
November	2,880	1,120	1,650	5.57	6.21
December	1,520	886	1,070	3.61	4.16
January	1,120	726	846	2.86	3.30
February	2,010	626	857	2.90	3.02
March	2,520	578	843	2.85	3.29
April	942	532	628	2.12	2.36
May	1,590	509	790	2.67	3.08
June	626	383	485	1.64	1.83
July	513	309	366	1.24	1.43
August	423	226	283	.956	1.10
September	2,070	226	528	1.78	1.99
The year	5,180	226	836	2.82	38.35

FRENCH BROAD RIVER AT ASHEVILLE, N. C.

LOCATION.—Water-stage recorder at Bingham School bridge, 2¼ miles downstream from Southern Railway station at Asheville, Buncombe County. Chain gage used prior to Aug. 9.

DRAINAGE AREA.—949 square miles.

RECORDS AVAILABLE.—September, 1895, to December, 1901; January, 1905, to September, 1930. Records January, 1905, to September, 1922, were obtained at Smith Bridge, 1½ miles upstream.

EXTREMES.—Maximum discharge during year, 15,100 second-feet Oct. 2 (gage height, 7.06 feet); minimum, 390 second-feet Sept. 5 (gage height, 0.38 foot).

1895–1901, 1905–1930: Maximum discharge (estimated), 110,000 second-feet July 16, 1916 (gage height 23.1 feet); minimum, 239 second-feet in August and September, 1925 (gage height, 0.16 foot).

REMARKS.—Records good. Slight diurnal fluctuation caused by operation of mills on tributaries. Small diversion from tributaries for water supply.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,720	2,850	2,350	2,190	1,750	1,480	1,410	1,220	1,100	918	560	435
2	14,400	3,210	2,680	2,190	1,750	1,410	1,410	1,220	1,100	750	528	420
3	10,900	4,990	3,390	2,190	2,040	1,410	1,680	1,220	1,040	700	496	412
4	7,730	6,780	2,850	2,040	2,680	1,410	1,680	1,220	975	650	465	420
5	4,780	4,570	2,510	2,040	4,290	1,410	1,540	1,220	1,040	650	458	412
6	3,770	3,390	2,510	1,900	3,030	1,410	1,220	1,160	1,160	623	458	552
7	3,390	3,030	2,510	2,040	2,350	3,660	1,610	1,610	1,160	596	458	504
8	3,030	3,030	2,510	2,040	2,350	4,990	1,900	1,410	1,100	587	528	435
9	2,850	2,680	2,350	2,040	2,190	3,030	1,750	1,900	1,160	605	578	605
10	2,510	2,850	2,350	1,900	2,040	2,510	1,610	1,610	1,160	578	560	623
11	2,350	2,510	2,190	1,900	1,900	2,350	1,610	1,540	1,040	569	512	1,940
12	2,350	3,030	2,190	1,750	1,750	2,040	1,610	1,750	918	587	496	2,570
13	2,190	4,170	2,190	1,750	1,900	2,040	1,540	2,350	918	560	472	1,220
14	2,040	3,970	2,040	1,750	1,900	1,900	1,540	2,680	1,160	700	458	975
15	2,040	3,210	2,040	2,040	1,900	1,750	1,480	2,850	1,040	650	465	1,480
16	1,900	4,370	2,040	2,510	1,750	1,750	1,480	2,040	975	700	472	1,100
17	1,900	3,770	2,040	2,190	1,680	1,750	1,480	1,900	1,040	700	472	1,040
18	1,750	4,170	2,040	2,040	1,680	1,900	1,750	1,680	1,220	700	472	975
19	1,750	3,770	3,030	1,900	1,610	1,900	1,680	2,350	1,040	860	596	975
20	1,750	3,210	2,680	1,900	1,610	1,900	1,540	2,040	918	650	560	1,410
21	7,990	3,030	2,680	1,900	1,610	1,750	1,480	1,750	918	605	560	1,340
22	9,770	3,030	2,350	2,040	1,540	1,750	1,410	1,610	918	596	750	1,340
23	7,490	3,030	2,350	2,040	1,610	1,750	1,480	1,610	918	569	860	1,040
24	3,970	2,850	2,190	1,900	1,540	1,750	1,340	1,610	860	975	614	860
25	3,390	2,680	2,190	1,750	1,540	1,680	1,340	1,480	805	750	528	805
26	2,850	3,210	2,190	1,750	1,540	1,540	1,340	1,340	975	632	496	1,160
27	2,680	3,210	2,040	1,680	1,540	1,540	1,280	1,280	860	552	496	1,100
28	2,510	2,680	2,350	1,750	1,480	1,480	1,280	1,220	805	560	480	860
29	2,510	2,680	2,350	1,750	-------	1,410	1,280	1,220	750	544	450	750
30	2,350	2,510	2,350	1,750	-------	1,480	1,280	1,160	700	650	458	750
31	2,680	-------	2,350	1,750	-------	1,480	-------	1,100	-------	587	442	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	14,400	1,750	4,200	4.43	5.11
November	6,780	2,510	3,420	3.61	4.03
December	3,390	2,040	2,380	2.51	2.89
January	2,510	1,680	1,950	2.05	2.36
February	4,290	1,480	1,950	2.05	2.14
March	4,990	1,410	1,920	2.02	2.33
April	1,900	1,220	1,500	1.58	1.76
May	2,850	1,100	1,620	1.71	1.97
June	1,220	700	992	1.05	1.17
July	975	544	657	.692	.80
August	860	442	523	.551	.64
September	2,570	412	950	1.00	1.12
The year	14,400	412	1,840	1.94	26.32

FRENCH BROAD RIVER NEAR NEWPORT, TENN.

LOCATION.—Water-stage recorder at highway bridge at Oldtown, on Newport-Morristown road, 2½ miles northeast of Newport, Cocke County, and 4 miles above mouth of Pigeon River. Zero of gage 1,012.89 feet above mean sea level.

DRAINAGE AREA.—1,860 square miles.

RECORDS AVAILABLE.—September, 1900, to November, 1901; November, 1902, to December, 1905; August to December, 1907; November, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 25,600 second-feet Oct. 2 (gage height, 8.8 feet); minimum, 497 second-feet Sept. 5 (gage height, 1.33 feet).

1900–1905, 1907, 1920–1930: Maximum discharge, about 62,200 second-feet Apr. 8, 1903 (gage height, 12.0 feet); minimum, 210 second-feet Sept. 9, 1925.

REMARKS.—Records good. Chain-gage readings used Feb. 15–18.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,720	3,310	2,990	3,260	2,350	2,280	2,100	1,690	1,570	1,020	806	590
2	20,700	3,580	3,180	3,040	2,450	2,240	2,080	1,650	1,500	1,150	748	580
3	15,500	4,880	3,860	3,200	2,810	2,190	2,280	1,650	1,410	1,040	693	570
4	11,400	8,170	3,580	3,200	4,140	2,080	2,910	1,590	1,410	950	650	542
5	7,460	7,120	3,260	2,960	5,970	2,060	2,780	1,610	1,330	926	640	524
6	5,180	5,500	3,150	2,830	5,650	2,040	3,580	1,690	1,380	950	600	704
7	4,280	4,280	3,090	2,780	4,280	2,570	5,180	2,080	1,630	902	590	726
8	3,860	4,000	3,090	2,730	3,720	7,820	4,140	2,330	1,610	854	590	704
9	3,440	3,860	3,070	2,780	3,260	7,290	3,260	2,100	1,630	818	660	748
10	3,180	3,580	2,940	2,620	3,040	5,500	2,830	2,280	1,810	794	737	914
11	2,910	3,420	2,830	2,550	2,860	4,730	2,600	2,080	1,650	1,120	794	1,210
12	2,750	3,230	2,780	2,420	2,700	4,880	2,470	2,400	1,410	890	660	3,280
13	2,620	4,430	2,730	2,420	2,620	4,140	2,400	2,910	1,300	890	570	2,350
14	2,520	5,180	2,650	2,380	3,310	3,580	2,330	4,430	1,350	1,010	570	1,400
15	2,420	5,180	2,650	2,680	3,150	3,260	2,210	4,430	1,500	1,150	590	1,430
16	2,280	5,650	2,650	3,310	2,780	2,990	2,130	3,440	1,440	1,300	610	1,750
17	2,240	5,650	2,650	3,260	2,680	2,810	2,080	2,860	1,330	1,050	580	1,560
18	2,170	6,620	2,650	2,830	2,520	2,910	2,100	2,620	1,440	1,400	794	1,280
19	2,080	5,810	3,390	2,570	2,520	5,650	2,350	3,720	1,730	1,080	1,120	1,350
20	2,020	4,880	3,860	2,550	2,450	5,810	2,330	3,860	1,360	1,150	818	1,870
21	2,570	4,280	3,260	2,520	2,330	4,140	2,130	3,180	1,300	950	938	2,080
22	16,300	4,000	3,070	2,650	2,280	3,500	2,020	2,570	1,500	866	1,480	1,630
23	11,000	3,720	3,070	2,830	2,400	3,120	2,000	2,300	1,380	830	1,050	1,560
24	6,950	3,720	2,900	2,750	3,440	2,960	1,930	2,420	1,260	842	1,110	1,260
25	4,730	3,580	2,620	2,600	3,200	2,780	1,890	2,330	1,180	1,380	794	1,260
26	4,000	3,720	2,830	2,450	2,830	2,730	1,790	2,080	1,240	1,150	705	1,690
27	3,580	4,280	2,780	2,450	2,550	2,550	1,710	1,870	1,650	950	660	1,630
28	3,280	4,000	3,200	2,350	2,420	2,400	1,710	1,770	1,350	914	650	1,360
29	3,200	3,720	4,280	2,350	-------	2,260	1,690	1,770	1,120	902	650	1,140
30	3,120	3,280	4,000	2,520	-------	2,240	1,710	1,750	1,010	818	600	974
31	3,120	-------	3,530	2,450	-------	2,170	-------	1,610	-------	818	590	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	20,700	2,020	5,470	2.94	3.39
November	8,170	3,230	4,550	2.45	2.73
December	4,280	2,620	3,120	1.68	1.94
January	3,310	2,350	2,720	1.46	1.68
February	5,970	2,280	3,100	1.67	1.74
March	7,820	2,040	3,470	1.87	2.16
April	5,180	1,690	2,420	1.30	1.45
May	4,430	1,590	2,420	1.30	1.50
June	1,810	1,010	1,430	.769	.86
July	1,400	794	996	.535	.62
August	1,480	570	744	.400	.46
September	3,280	524	1,290	.694	.77
The year	20,700	524	2,640	1.42	19.30

FRENCH BROAD RIVER AT DANDRIDGE, TENN.

LOCATION.—Staff gage at highway bridge at Dandridge, Jefferson County. Zero of gage 902.83 feet above mean sea level.

DRAINAGE AREA.—4,450 square miles.

RECORDS AVAILABLE.—October, 1918, to September, 1930.

EXTREMES.—Maximum discharge during year, about 40,200 second-feet Oct. 23 (gage height, 10.7 feet); minimum, 795 second-feet Sept. 2 (gage height, −0.3 foot).

1918–1930: Maximum stage, 18.7 feet Apr. 2, 1920 (discharge not determined); minimum discharge, 360 second-feet Sept. 9, 10, 1925 (gage height, −0.6 foot).

Maximum stage known, 28.0 feet May 21, 1901.

REMARKS.—Records good below and fair above 30,000 second-feet. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,900	6,170	6,790	8,050	5,570	6,480	6,170	4,690	3,600	2,190	2,190	1,110
2	34,800	6,170	6,170	7,100	5,270	5,870	6,170	4,130	2,850	2,400	1,620	795
3	21,200	7,730	7,100	7,730	5,270	4,980	6,170	3,600	3,600	2,620	1,280	950
4	15,600	11,700	8,370	8,050	7,730	6,170	7,410	3,860	3,600	1,990	1,620	1,110
5	10,700	13,800	7,410	7,410	13,400	5,570	7,410	3,340	3,600	1,990	1,620	1,280
6	12,000	10,700	6,790	6,480	13,800	5,270	7,100	3,860	3,600	1,990	1,620	1,280
7	8,690	8,690	6,480	7,410	10,300	6,170	12,000	4,130	3,860	1,990	1,440	1,440
8	8,050	8,050	6,480	6,480	8,370	13,400	11,700	4,690	3,600	2,400	1,440	1,440
9	7,100	7,410	6,170	6,170	7,410	19,300	9,340	4,980	2,850	1,620	1,440	1,110
10	6,480	6,480	6,480	6,170	7,100	14,500	8,050	4,980	3,860	1,620	1,620	1,800
11	5,870	5,870	6,480	6,170	6,790	11,700	7,410	4,690	3,860	1,800	1,800	2,190
12	5,570	6,170	6,170	5,570	6,480	12,400	6,790	5,570	3,600	2,190	1,800	2,400
13	5,270	6,790	5,870	5,270	6,480	10,700	5,870	5,870	3,340	1,620	1,990	4,980
14	4,410	11,700	5,870	5,570	13,400	9,340	5,570	6,790	3,340	2,190	1,440	3,340
15	5,270	12,700	5,570	5,570	9,670	8,050	6,170	10,700	2,620	3,340	1,620	2,400
16	4,690	13,100	4,980	6,170	8,690	7,100	6,170	8,690	2,190	3,090	1,440	3,600
17	4,690	13,100	5,870	7,100	6,480	6,480	5,870	7,410	2,620	3,340	1,620	3,600
18	4,410	17,400	5,570	6,790	6,790	7,100	5,570	5,570	2,620	2,620	1,990	3,090
19	4,130	15,200	5,870	6,170	6,480	17,400	5,270	5,570	2,620	3,090	2,620	2,850
20	3,860	14,800	8,050	5,270	6,480	21,200	5,570	10,700	3,090	1,800	2,620	2,850
21	3,600	10,300	8,690	5,570	6,170	16,300	4,980	9,010	2,850	2,400	1,990	3,860
22	4,690	9,010	6,480	6,790	5,870	11,000	5,870	7,410	2,850	1,800	4,130	3,340
23	39,200	8,370	6,170	7,730	5,570	9,010	5,570	6,480	3,600	2,620	3,600	2,850
24	18,100	8,050	6,480	7,410	7,410	7,730	5,270	5,870	3,090	2,400	2,190	3,090
25	11,300	7,730	5,870	6,480	8,050	7,730	4,980	5,270	2,850	2,190	2,400	3,090
26	9,010	7,730	5,570	5,570	7,410	7,730	4,690	4,410	2,850	3,600	2,190	3,090
27	6,480	8,690	5,870	5,270	7,410	7,410	4,130	5,570	2,190	2,190	1,800	3,860
28	6,480	8,690	6,790	5,870	6,480	6,790	3,860	4,980	3,090	1,620	1,990	3,090
29	6,170	7,730	10,300	5,870	------	6,480	4,980	4,690	2,620	1,990	1,800	2,400
30	5,870	7,730	10,300	5,870	------	5,870	4,690	4,690	2,190	2,400	1,800	2,400
31	5,870	------	9,670	5,570	------	5,270	------	4,130	------	2,190	1,280	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	39,200	3,600	9,850	2.21	2.55
November	17,400	5,870	9,590	2.16	2.41
December	10,300	4,980	6,800	1.53	1.76
January	8,050	5,270	6,410	1.44	1.66
February	13,800	5,270	7,730	1.74	1.81
March	21,200	4,980	9,370	2.11	2.43
April	12,000	3,860	6,360	1.43	1.60
May	10,700	3,340	5,690	1.28	1.48
June	3,860	2,190	3,100	.697	.78
July	3,600	1,620	2,300	.517	.60
August	4,130	1,280	1,940	.436	.50
September	4,980	795	2,490	.560	.62
The year	39,200	795	5,960	1.34	18.20

TENNESSEE RIVER AT KNOXVILLE, TENN.

LOCATION.—Water-stage recorder at old pumping plant of city of Knoxville, half a mile above Gay Street Bridge in Knoxville, Knox County. Zero of gage 797.59 feet above mean sea level.

DRAINAGE AREA.—8,990 square miles.

RECORDS AVAILABLE.—January, 1899, to December, 1912; October, 1918, to September, 1930.

EXTREMES.—Maximum discharge during year, 52,900 second-feet Oct. 23 (gage height, 10.63 feet); minimum, 2,070 second-feet Sept. 4 (gage height, —0.78 foot).

1899–1912, 1918–1930: Maximum discharge, about 195,000 second-feet Mar. 1, 1902 (gage height, 36.4 feet); minimum, 1,390 second-feet Sept. 11, 1925 (gage height, —1.7 feet).

Maximum stage known, 44.4 feet Mar. 10, 1867.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,800	8,710	12,300	15,200	9,140	11,300	11,800	7,020	6,260	3,510	4,050	2,700
2	18,800	9,590	11,300	13,800	8,920	10,800	10,800	6,860	5,720	4,140	3,240	2,380
3	37,100	12,800	11,500	14,800	9,590	10,300	11,500	6,860	5,260	4,320	2,970	2,180
4	37,100	15,200	13,200	15,800	12,300	10,500	14,800	6,700	5,720	4,230	2,540	2,180
5	26,000	21,300	12,500	14,800	19,800	9,590	15,800	6,550	5,720	4,050	2,540	2,380
6	17,800	21,800	11,300	12,800	26,500	9,360	16,800	6,260	5,720	3,150	3,240	2,310
7	13,800	16,200	10,800	12,500	26,000	15,200	19,800	6,700	5,980	3,330	2,700	2,310
8	12,500	13,200	10,800	11,500	19,800	23,900	28,600	7,020	5,980	3,150	2,460	2,460
9	10,800	12,000	10,800	11,500	16,200	33,900	23,900	7,720	5,370	3,330	2,460	2,460
10	9,590	11,000	11,300	11,000	14,200	31,200	17,800	7,540	5,260	2,790	2,620	2,620
11	8,500	10,100	11,300	10,500	12,800	26,000	14,800	8,300	5,980	2,790	2,790	4,140
12	7,910	9,820	10,800	10,100	11,800	23,900	13,200	8,500	5,600	2,880	2,880	4,230
13	7,720	12,500	10,300	9,590	14,800	21,300	12,000	8,710	5,370	3,060	3,330	5,370
14	7,190	17,800	10,100	9,360	24,900	18,800	11,000	12,000	5,060	3,510	3,510	5,260
15	6,860	23,400	9,820	9,590	21,800	16,800	11,300	14,200	4,410	4,050	3,060	4,770
16	6,860	23,400	9,590	9,820	18,800	15,800	10,300	12,500	4,050	4,230	2,880	4,320
17	6,700	31,200	9,820	10,500	15,200	14,200	9,820	10,800	4,320	4,960	2,880	4,860
18	6,550	38,200	10,500	10,800	13,800	16,800	9,590	9,590	4,320	4,230	4,410	4,230
19	6,260	34,400	12,800	9,820	12,500	36,600	9,360	13,800	4,410	4,140	4,500	4,140
20	5,850	32,300	13,800	9,140	12,000	44,700	9,590	17,200	4,770	4,050	4,500	4,500
21	5,600	23,400	14,200	9,360	11,500	40,400	9,360	15,800	4,960	3,780	4,500	5,480
22	11,300	17,800	12,800	11,300	10,800	28,600	9,140	14,200	5,060	3,600	5,850	5,370
23	42,000	15,800	12,000	12,800	12,000	21,800	8,710	12,000	4,860	3,960	5,850	4,320
24	33,400	14,800	11,300	13,200	13,800	18,800	8,300	10,500	5,060	4,050	9,590	4,770
25	19,300	14,200	10,800	12,500	14,200	16,800	7,910	9,820	4,590	3,420	7,360	4,770
26	14,200	14,200	10,300	10,100	13,200	15,800	7,910	8,920	4,590	3,690	5,600	4,770
27	12,300	14,200	8,920	9,140	12,800	15,200	7,360	8,710	4,230	3,870	4,960	4,770
28	10,800	14,200	12,000	9,140	11,800	13,800	7,190	7,720	4,050	3,060	4,500	4,960
29	9,360	13,800	16,800	9,140	-------	13,200	7,360	7,020	4,320	2,620	4,140	4,500
30	8,500	12,800	19,300	9,140	-------	12,300	7,190	7,020	4,140	3,600	4,050	3,510
31	8,710	-------	18,800	9,140	-------	11,800	-------	6,700	-------	4,050	3,420	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	42,000	5,600	14,200	1.58	1.82
November	38,200	8,710	17,700	1.97	2.20
December	19,300	8,920	12,000	1.33	1.53
January	15,800	9,140	11,200	1.25	1.44
February	26,500	8,920	15,000	1.67	1.74
March	44,700	9,360	19,700	2.19	2.52
April	28,600	7,190	12,100	1.35	1.51
May	17,200	6,260	9,460	1.05	1.21
June	6,260	4,050	5,040	.561	.63
July	4,960	2,620	3,660	.407	.47
August	9,590	2,460	3,980	.443	.51
September	5,480	2,180	3,900	.434	.48
The year	44,700	2,180	10,600	1.18	16.06

TENNESSEE RIVER AT LOUDON, TENN.

LOCATION.—Water-stage recorder at highway bridge at Loudon, Loudor County. Prior to Oct. 1, 1929, staff gage at Huffs Ferry, 4½ miles downstream was used. Zero of present gage 726.15 feet above mean sea level.

DRAINAGE AREA.—12,300 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1930.

EXTREMES.—Maximum discharge during year, 73,200 second-feet Nov. 18 (gage height, 12.90 feet); minimum, 4,300 second-feet Aug. 8 (gage height, 2.50 feet).

1922–1930: Maximum discharge, about 126,000 second-feet Mar. 24, 1929 (gage height, at Huffs Ferry, 21.5 feet); minimum, 2,190 second-feet Sept. 12, 1925 (gage height, at Huffs Ferry, 0.82 foot).

REMARKS.—Records good. Low-water flow slightly affected by regulation on Little Tennessee and Cheoah Rivers.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,000	11,700	21,000	24,900	15,900	19,000	19,000	11,700	11,700	[a] 8,050	6,270	5,240
2	21,000	13,700	19,700	22,300	15,900	18,400	18,400	11,400	10,900	[a] 7,820	6,700	4,820
3	41,400	22,900	19,700	24,900	15,900	17,200	19,700	11,100	10,300	[a] 7,360	6,060	4,670
4	44,200	33,700	19,700	25,600	20,300	17,200	24,200	11,700	10,300	[a] 7,140	5,850	4,520
5	36,400	33,000	20,300	23,600	33,700	17,200	25,600	10,900	10,300	[a] 6,920	4,940	4,520
6	26,200	31,600	18,400	22,300	37,100	16,500	26,900	10,900	10,300	[a] 6,480	4,750	5,240
7	20,300	25,200	16,500	21,000	37,100	26,200	28,200	11,400	11,700	[a] 5,850	5,240	4,670
8	17,800	22,300	17,200	19,000	31,600	45,000	34,400	11,700	11,700	5,440	4,900	4,450
9	16,500	20,300	17,200	18,400	26,200	48,600	35,000	12,600	11,400	5,640	4,860	4,450
10	13,100	18,400	17,200	17,200	22,300	47,200	28,200	13,400	10,000	6,060	4,670	4,670
11	12,600	17,200	17,200	16,500	21,000	40,700	23,600	13,100	10,300	5,240	4,670	6,270
12	12,000	15,900	17,200	17,200	19,700	37,800	21,600	17,200	10,000	5,440	4,520	7,590
13	11,400	22,300	16,500	16,500	20,300	34,400	19,700	15,900	9,530	5,640	4,670	7,590
14	11,100	37,800	15,960	14,600	34,400	30,200	19,000	20,300	9,530	6,480	5,050	8,290
15	10,600	50,100	15,300	15,300	35,700	27,600	17,800	28,900	8,780	8,290	5,240	7,360
16	11,100	52,300	14,600	17,200	29,600	24,200	13,400	24,900	8,050	7,360	5,050	6,480
17	10,000	52,300	14,300	16,500	24,900	22,900	12,300	20,300	8,530	7,590	5,050	6,700
18	10,000	71,000	15,600	17,200	21,600	22,900	12,000	18,400	9,280	7,590	5,440	6,920
19	9,790	59,800	17,800	16,500	21,000	40,700	11,700	27,600	8,530	7,820	6,700	6,480
20	9,530	47,200	20,300	15,000	19,000	38,500	12,600	40,000	8,050	7,360	6,920	7,590
21	9,530	40,700	20,300	15,000	19,000	57,500	14,000	30,200	8,780	6,480	6,700	8,050
22	10,900	31,600	20,300	19,000	17,800	47,200	14,300	25,600	8,780	6,270	7,590	8,780
23	30,200	27,600	19,000	21,600	18,400	35,700	14,000	21,600	8,780	6,060	9,790	7,360
24	46,400	25,600	17,800	21,600	21,600	30,200	13,700	18,400	8,780	6,700	9,790	6,270
25	28,200	23,600	17,800	21,000	22,300	27,600	12,800	17,800	8,780	7,140	11,100	7,140
26	20,300	23,600	17,200	18,400	21,600	26,900	12,300	15,900	8,290	6,480	8,780	8,780
27	16,500	24,900	15,600	17,200	21,000	25,600	12,300	14,600	8,290	6,270	7,590	8,290
28	14,600	24,200	19,700	16,500	20,300	22,900	12,000	14,600	[a] 8,050	6,270	6,700	7,590
29	14,300	23,600	26,200	16,500	-------	21,600	11,700	12,300	[a] 8,050	5,640	6,480	7,590
30	13,700	22,300	28,900	16,500	-------	21,000	12,300	12,600	[a] 8,050	4,970	5,850	6,480
31	12,600	-------	27,600	16,500	-------	19,700	-------	12,600	-------	5,850	5,640	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	46,400	9,530	19,100	1.55	1.79
November	71,000	11,700	30,900	2.51	2.80
December	28,900	14,300	18,800	1.53	1.76
January	25,600	14,600	18,800	1.53	1.76
February	37,100	15,900	23,800	1.93	2.01
March	57,500	16,500	29,900	2.43	2.80
April	35,000	11,700	18,400	1.50	1.67
May	40,000	10,900	17,400	1.41	1.63
June	11,700	8,050	9,460	.769	.86
July	8,290	4,970	6,570	.534	.62
August	11,100	4,520	6,240	.507	.58
September	8,780	4,450	6,500	.528	.59
The year	71,000	4,450	17,100	1.39	18.87

[a] Partly estimated.

TENNESSEE RIVER AT CHATTANOOGA, TENN.

LOCATION.—Three water-stage recorders, one at Walnut Street Bridge in Chattanooga, Hamilton County, one just above Hales Bar Lock and Dam 33 miles downstream, and one just below Hales Bar Lock and Dam. Elevation of zero of Chattanooga gage above mean sea level 620.85 feet; upper Hales Bar gage 626.06 feet; and lower Hales Bar gage 588.63 feet.

DRAINAGE AREA.—21,400 square miles.

RECORDS AVAILABLE.—April, 1874, to October, 1913; March, 1915, to September, 1930.

EXTREMES.—Maximum discharge during year, 180,000 second-feet Nov. 19 (gage height, 28.95 feet on Chattanooga gage); minimum, 5,950 second-feet Sept. 5. 1874–1930: Maximum discharge, about 361,000 second-feet Mar. 1, 1875 (gage height, 54.0 feet on Chattanooga gage); minimum (estimated), 3,300 second-feet Sept. 13, 1925.

REMARKS.—Records good. Discharge July 1 to Sept. 30 is flow below Hales Bar Dam. Flow during low stages largely regulated by operation of power plant at Hales Bar Dam.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34,200	20,200	41,300	54,100	30,300	38,600	35,700	19,500	20,800	11,900	8,580	8,920
2	28,000	21,100	40,100	49,200	28,900	39,000	34,300	19,500	19,700	10,500	8,580	7,880
3	26,100	46,100	39,500	47,600	28,100	33,300	34,500	18,600	18,200	11,200	9,450	7,700
4	39,000	66,800	38,600	46,900	35,600	39,000	38,300	18,800	17,200	10,300	8,220	8,050
5	48,100	68,300	36,800	45,500	52,100	31,200	43,700	17,700	15,500	10,500	8,920	6,550
6	44,600	59,600	35,900	43,300	67,000	31,200	47,300	19,700	15,600	9,280	8,580	6,850
7	35,200	58,000	33,800	42,500	70,400	54,200	51,400	18,500	16,500	11,200	8,580	5,950
8	30,100	52,900	31,400	40,000	71,000	88,900	50,600	18,600	16,700	9,450	7,350	6,850
9	25,800	41,700	30,500	37,700	65,000	97,800	51,400	20,400	17,800	9,620	7,520	7,520
10	23,200	36,000	32,000	35,800	53,600	89,400	54,100	21,200	17,400	9,280	7,350	6,850
11	19,000	31,400	32,400	33,300	45,700	85,200	49,800	23,100	16,300	8,920	7,350	7,520
12	18,000	29,300	32,300	30,000	40,200	78,800	43,000	22,500	15,100	9,980	7,700	7,880
13	17,100	34,400	31,800	29,900	39,100	72,400	37,100	23,200	15,000	9,980	7,350	9,450
14	16,800	68,000	31,200	28,800	55,100	64,400	34,800	25,700	14,200	8,920	7,880	11,200
15	16,100	129,000	30,000	29,300	79,700	56,600	31,500	27,400	13,600	8,580	7,520	11,200
16	15,300	152,000	27,700	29,100	75,700	52,500	32,200	36,700	12,000	10,300	7,520	11,900
17	15,400	150,000	28,600	29,500	63,200	45,700	28,600	35,500	13,300	12,300	7,880	10,200
18	14,400	162,000	31,700	29,300	53,800	43,700	24,800	31,300	15,200	11,900	7,880	9,100
19	13,500	167,000	37,100	28,100	46,900	56,300	23,800	37,200	15,100	11,200	7,350	9,800
20	13,200	147,000	43,500	26,600	41,800	89,400	22,700	53,000	14,200	11,900	7,880	10,300
21	13,800	118,000	44,900	26,500	38,600	108,000	21,000	65,400	12,600	11,900	8,920	11,200
22	15,100	93,800	43,800	28,400	36,200	99,800	23,000	58,200	13,000	11,200	10,200	11,200
23	16,600	72,000	42,500	32,000	33,200	82,700	23,700	51,900	12,200	10,800	9,280	11,600
24	21,800	59,200	39,800	36,300	36,400	66,300	24,800	41,800	13,800	10,800	9,980	12,300
25	46,300	52,200	36,200	36,500	42,700	57,800	23,500	33,600	13,600	11,200	12,300	11,600
26	45,700	47,600	33,400	34,500	44,900	48,900	22,600	30,000	14,200	11,200	12,700	10,500
27	34,900	48,800	32,500	31,000	43,700	53,500	20,400	27,500	14,200	11,200	13,500	11,600
28	25,400	49,500	35,000	31,000	41,100	49,500	18,300	25,500	12,700	10,200	12,300	11,600
29	21,600	46,400	40,800	29,900	-------	45,000	19,000	24,300	12,500	9,620	12,300	11,900
30	21,000	43,400	48,800	30,600	-------	40,100	19,500	22,400	10,800	9,620	10,200	10,200
31	21,000	-------	54,400	31,000	-------	37,100	-------	19,600	-------	9,450	9,100	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	48,100	13,200	25,000	1.17	1.35
November	167,000	20,200	72,400	3.38	3.77
December	54,400	27,700	36,800	1.72	1.98
January	54,100	26,500	35,000	1.64	1.89
February	79,700	28,100	48,600	2.27	2.36
March	108,000	31,200	60,500	2.83	3.26
April	54,100	18,300	32,800	1.53	1.71
May	65,400	17,700	29,300	1.37	1.58
June	20,800	10,800	15,000	.701	.78
July	12,300	8,580	10,500	.491	.57
August	13,500	7,350	9,040	.422	.49
September	12,300	5,950	9,510	.444	.50
The year	167,000	5,950	31,900	1.49	20.24

TENNESSEE RIVER AT GUNTERSVILLE, ALA.

LOCATION.—Water-stage recorder at highway bridge at mouth of Big Spring Creek at Guntersville, Marshall County. Zero of gage 546.85 feet above mean sea level.

DRAINAGE AREA.—24,200 square miles.

RECORDS AVAILABLE.—May to September, 1930.

EXTREMES.—Maximum discharge during period of record, 72,000 second-feet May 22 (gage height, 14.63 feet); minimum, 7,020 second-feet Sept. 8 (gage height, 1.21 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1930

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1		24,500	12,300	9,860	9,860	16	27,600	15,100	9,250	8,670	11,600
2		22,400	11,900	9,250	9,550	17	34,500	16,000	10,500	8,110	11,600
3		19,800	10,500	9,250	8,960	18	38,300	15,100	11,900	8,670	10,500
4		16,400	11,900	9,860	8,670	19	49,700	14,300	12,300	8,670	10,200
5		16,400	11,200	8,960	8,670	20	58,200	15,100	11,600	8,390	10,500
6		17,600	10,800	9,250	7,830	21	63,900	16,000	11,900	8,670	11,600
7		19,800	10,200	9,250	7,830	22	71,300	[a]14,300	11,600	8,960	12,700
8		18,900	10,800	9,250	7,020	23	65,800	[a]12,300	11,200	10,200	11,900
9		18,100	10,200	8,390	7,560	24	60,600	13,500	11,200	9,860	11,900
10		16,800	10,200	8,390	8,390	25	50,800	13,500	11,200	10,500	12,700
11		18,100	9,860	8,390	8,110	26	41,200	14,300	11,600	12,300	12,700
12		18,500	9,860	8,390	8,390	27	34,500	15,100	11,600	12,700	11,600
13		16,800	10,200	8,390	8,670	28	30,800	13,900	11,200	14,300	11,900
14		16,000	10,500	8,110	9,250	29	29,000	13,500	10,500	13,100	11,900
15		16,000	9,860	8,670	11,200	30	27,600	11,900	10,200	11,900	12,300
						31	26,300		10,200	10,500	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
May 16–31	71,300	26,300	44,400	1.83	1.09
June	24,500	11,900	16,300	.674	.75
July	12,300	9,250	10,900	.450	.52
August	14,300	8,110	9,650	.399	.46
September	12,700	7,020	10,200	.421	.47

[a] Estimated.

TENNESSEE RIVER AT DECATUR, ALA.

LOCATION.—Water-stage recorder at highway bridge at Decatur, Morgan County, 2,500 feet upstream from Louisville & Nashville Railroad bridge. Zero of gage 534.06 feet above mean sea level.

DRAINAGE AREA.—26,300 square miles.

RECORDS AVAILABLE.—October, 1924, to September, 1930.

EXTREMES.—Maximum discharge during year, 210,000 second-feet Nov. 19 (gage height, 20.3 feet); minimum, 6,200 second-feet Sept. 9 (gage height, 0.65 foot).

1924–1930: Maximum discharge, 283,000 second-feet Jan. 1, 1927 (gage height, 23.2 feet); minimum, 3,520 second-feet Aug. 19–24, Sept. 7–13, 19, 1925 (gage height, −0.4 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53,400	38,500	57,600	59,300	37,800	50,900	49,300	21,800	28,700	13,500	10,000	11,200
2	47,700	40,000	54,200	61,900	37,800	49,300	46,100	22,400	26,800	13,000	9,780	10,000
3	40,000	55,900	55,900	65,500	37,000	46,100	46,100	23,000	24,200	12,500	9,100	9,550
4	34,900	73,000	55,000	66,400	38,500	43,000	51,700	23,000	21,200	11,500	8,650	8,880
5	34,900	101,000	51,700	61,900	50,100	40,000	53,400	22,400	18,400	12,000	8,880	8,420
6	49,300	101,000	49,300	58,400	65,500	39,200	54,200	21,200	18,900	11,800	8,880	8,200
7	58,400	90,000	47,700	55,900	78,000	61,000	55,900	20,000	21,800	11,200	8,880	7,750
8	53,400	79,000	46,100	53,400	82,000	103,000	59,300	20,600	23,000	10,800	8,650	7,300
9	44,500	70,000	44,500	51,700	81,000	124,000	59,300	20,600	21,800	10,800	8,650	6,620
10	37,800	61,000	42,200	49,300	78,000	130,000	57,600	22,400	20,000	10,500	8,200	6,400
11	32,800	51,700	40,800	46,100	70,000	127,000	59,300	23,000	18,900	10,500	7,750	7,520
12	30,000	46,900	40,800	43,800	61,000	117,000	58,400	24,200	19,400	10,200	7,750	7,750
13	27,400	51,700	40,800	40,800	54,200	105,000	54,200	24,800	19,400	10,000	7,750	7,980
14	24,800	88,000	40,000	39,200	55,900	94,400	47,700	24,200	18,400	10,000	7,750	8,200
15	23,600	155,000	38,500	37,800	66,400	84,000	43,800	26,100	17,800	10,200	7,980	8,800
16	21,800	190,000	38,500	37,800	82,000	74,000	40,000	28,000	17,200	9,780	8,420	11,000
17	18,400	200,000	38,500	37,000	90,000	65,500	38,500	32,100	16,700	9,100	8,650	12,000
18	16,700	208,000	43,800	35,600	88,000	60,200	36,300	39,200	16,700	10,000	8,650	12,200
19	17,200	208,000	50,900	35,600	72,000	59,300	34,200	50,100	15,600	11,800	9,100	11,800
20	16,700	208,000	54,200	34,900	61,900	72,000	30,700	65,500	15,600	12,200	9,100	11,500
21	18,400	204,000	55,900	34,200	55,000	92,200	28,700	69,100	16,700	12,000	8,420	12,000
22	24,800	195,000	57,600	37,000	50,900	109,000	27,400	76,000	16,700	12,200	8,200	13,000
23	29,400	175,000	56,800	39,200	46,900	113,000	25,400	74,000	15,600	12,000	8,650	13,500
24	29,400	142,000	55,000	39,200	43,800	105,000	24,800	71,000	14,000	11,800	9,780	13,500
25	28,700	106,000	51,700	40,800	43,000	91,100	26,100	64,600	14,500	11,800	10,000	13,500
26	30,700	82,000	49,300	43,000	46,100	82,000	26,800	53,400	14,500	12,000	10,500	14,000
27	47,700	73,000	46,100	43,000	50,900	75,000	26,800	43,800	15,600	12,200	12,000	14,500
28	48,500	69,100	45,300	42,200	52,500	69,100	26,100	37,800	15,600	12,000	13,500	13,000
29	40,000	66,400	46,900	41,500	-------	64,600	22,400	34,200	15,000	11,800	14,500	12,500
30	33,500	62,800	49,300	39,200	-------	59,300	21,200	32,100	14,000	11,000	13,500	12,200
31	35,600	-------	54,200	38,500	-------	53,400	-------	30,000	-------	10,200	12,500	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	58,400	16,700	33,900	1.29	1.49
November	208,000	38,500	110,000	4.18	4.66
December	57,600	38,500	48,400	1.84	2.12
January	66,400	34,200	45,500	1.73	1.99
February	90,000	37,000	59,900	2.28	2.37
March	130,000	39,200	79,300	3.02	3.48
April	59,300	21,200	41,100	1.56	1.74
May	76,000	20,000	36,800	1.40	1.61
June	28,700	14,000	18,400	.700	.78
July	13,500	9,100	11,300	.430	.50
August	14,500	7,750	9,490	.361	.42
September	14,500	6,400	10,500	.399	.45
The year	208,000	6,400	41,800	1.59	21.61

TENNESSEE RIVER AT FLORENCE, ALA.

LOCATION.—Water-stage recorder 700 feet above Southern Railway bridge at lower end of Pattons Island, 1 mile south of Florence, Lauderdale County, and 2½ miles below Wilson Dam. Zero of gage 400.85 feet above mean sea level.

DRAINAGE AREA.—30,800 square miles.

RECORDS AVAILABLE.—November, 1871, to September, 1930.

EXTREMES.—Maximum discharge during year, 248,000 second-feet Nov. 19 (gage height, 20.0 feet); minimum, 7,220 second-feet, regulated flow, Sept. 10 (gage height, −1.03 feet).

1871–1930: Maximum discharge, about 444,000 second-feet Mar. 19, 1897 (gage height, 32.5 feet); minimum, 2,400 second-feet, caused by storing at Wilson Dam, Oct. 8, 1925 (gage height, −3.0 feet).

REMARKS.—Records good. Flow largely regulated by operation of gates at Wilson Dam and during low water by operation of power plant at Hales Bar Dam.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56,500	47,000	63,800	63,800	40,000	56,500	53,500	24,200	29,800	17,300	10,600	12,000
2	47,000	57,500	58,500	70,400	40,000	50,600	51,500	23,600	27,700	16,700	10,800	11,600
3	38,400	75,100	59,500	77,500	39,200	49,700	50,600	[a] 24,200	24,200	15,000	10,300	10,800
4	34,400	105,000	61,600	78,700	48,800	47,000	54,500	22,900	22,900	12,600	10,100	10,300
5	33,600	117,000	56,500	75,100	71,500	42,600	59,500	[a] 22,200	20,300	12,300	10,100	9,420
6	47,900	119,000	53,500	68,200	77,500	[a] 47,900	58,500	22,900	21,000	12,000	10,600	9,640
7	63,800	108,000	50,600	63,800	91,600	[a] 105,000	57,500	21,600	22,200	12,000	10,300	8,990
8	61,600	90,300	49,700	61,600	95,500	154,000	62,700	22,900	24,900	12,000	10,100	8,370
9	49,700	79,900	51,500	59,500	91,600	170,000	64,900	29,100	23,600	12,000	10,100	8,170
10	42,600	69,300	47,000	53,500	89,000	164,000	60,500	36,000	22,200	11,100	10,300	8,370
11	36,800	57,500	48,800	51,500	79,900	160,000	62,700	43,200	20,300	11,100	10,300	8,990
12	32,800	50,600	44,300	48,800	68,200	152,000	63,800	36,000	20,300	11,600	10,600	9,870
13	27,000	61,600	44,300	44,300	71,500	133,000	57,500	29,100	21,000	11,100	10,600	9,640
14	24,200	108,000	42,600	44,300	92,900	126,000	51,500	30,600	20,300	11,100	10,300	8,570
15	21,600	182,000	42,600	45,200	89,000	102,000	46,100	32,800	17,900	10,800	10,600	8,990
16	20,300	224,000	40,900	43,400	101,000	89,000	42,600	32,100	19,700	11,300	10,800	9,200
17	17,900	234,000	40,900	41,800	108,000	75,100	40,000	33,600	21,600	10,600	10,600	10,600
18	15,500	242,000	52,500	39,200	101,000	71,500	37,600	44,300	19,100	10,300	10,800	10,300
19	16,100	244,000	59,500	38,400	85,100	73,900	35,200	66,000	18,500	10,600	11,600	10,100
20	17,700	240,000	62,700	38,400	72,700	83,800	32,800	91,600	18,500	11,800	10,300	11,600
21	17,300	232,000	63,800	36,800	61,600	105,000	30,600	86,400	15,000	12,800	10,600	10,300
22	22,900	226,000	63,800	38,400	56,500	125,000	[a] 29,100	85,100	15,500	12,000	10,300	10,800
23	29,100	208,000	62,700	41,800	51,500	132,000	27,000	89,000	15,500	12,000	10,300	11,800
24	32,100	177,000	[a] 61,600	41,800	51,500	128,000	24,900	90,300	14,400	12,800	9,420	11,800
25	33,600	135,000	[a] 57,500	41,800	49,700	112,000	24,200	81,200	19,700	13,800	9,640	12,600
26	32,800	101,000	[a] 53,500	45,200	52,500	96,800	26,300	66,000	17,900	16,100	9,870	14,400
27	44,300	89,000	51,500	47,000	[a] 56,500	89,000	27,000	52,500	17,300	13,000	11,600	15,000
28	51,500	81,200	50,600	43,400	58,500	81,200	27,000	40,900	17,300	13,000	12,300	14,400
29	43,400	73,900	51,500	45,200	-------	72,700	26,300	37,600	13,600	13,300	14,400	13,300
30	37,600	71,500	55,500	43,400	-------	67,100	22,900	35,200	16,100	12,300	14,400	12,800
31	44,300	-------	59,500	40,000	-------	59,500	-------	32,800	-------	11,600	13,300	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	63,800	15,500	35,300	1.15	1.33
November	244,000	47,000	130,000	4.22	4.71
December	63,800	40,900	53,600	1.74	2.01
January	78,700	36,800	50,700	1.65	1.90
February	108,000	39,200	71,200	2.31	2.40
March	170,000	42,600	97,500	3.17	3.66
April	64,900	22,900	43,600	1.42	1.58
May	91,600	21,600	44,700	1.45	1.67
June	29,800	13,600	19,900	.649	.72
July	17,300	10,300	12,500	.406	.47
August	14,400	9,420	10,800	.351	.40
September	15,000	8,170	10,800	.351	.39
The year	244,000	8,170	48,200	1.56	21.24

[a] Partly estimated.

TENNESSEE RIVER AT RIVERTON, ALA.

LOCATION.—Water-stage recorder at Government lock at foot of Colbert Shoals Canal, three-fourths mile northeast of Riverton, Colbert County, and 1¾ miles above mouth of Bear Creek. Zero of gage 355.5 feet above mean sea level.

DRAINAGE AREA.—31,300 square miles.

RECORDS AVAILABLE.—October, 1926, to September, 1930.

EXTREMES.—Maximum stage during year, 39.1 feet Nov. 20; minimum, 7.1 feet Sept. 9.

1926–1930: Maximum stage, 50.1 feet Dec. 30, 1926; minimum, that of Sept. 9, 1930.

United States Weather Bureau reports a maximum stage of 58.4 feet Mar. 20, 1897, and a minimum of 4.3 feet Oct. 12, 1925.

REMARKS.—Rating curve not developed because of lack of facilites for making discharge measurements. Considerable regulation during low water caused by operations at Wilson Dam.

Daily gage height, in feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16.7	15.1	18.2	17.7	14.3	16.8	16.5	10.9	12.5	9.6	7.9	8.3
2	15.5	16.2	17.3	18.6	14.2	16.3	16.1	10.8	12.2	9.6	7.8	8.2
3	14.2	18.6	17.1	19.5	14.2	15.9	15.9	11.1	11.3	9.3	7.8	8.0
4	13.0	21.7	17.5	20.1	15.6	15.5	16.2	11.0	11.0	8.7	7.7	7.8
5	13.1	23.7	17.0	19.7	18.9	14.9	17.0	10.8	10.5	8.4	7.7	7.6
6	14.2	24.4	16.4	18.9	20.0	15.6	16.9	10.6	10.4	8.4	7.7	7.5
7	17.2	23.5	16.1	18.3	21.1	22.6	16.9	10.6	10.5	8.3	7.7	7.6
8	17.4	21.5	15.9	17.9	21.8	29.3	17.4	10.6	11.2	8.4	7.7	7.3
9	16.2	20.0	16.0	17.6	21.7	31.2	17.7	11.5	11.1	8.3	7.8	7.1
10	14.7	18.8	15.5	17.1	21.2	31.2	17.5	13.4	10.8	8.2	7.8	7.3
11	13.8	17.3	15.1	16.4	20.4	30.7	17.4	15.0	10.5	8.0	7.8	7.4
12	12.8	16.2	14.8	15.9	19.0	30.0	17.5	14.0	10.2	8.2	7.8	7.7
13	11.6	17.4	14.8	15.2	18.9	28.1	17.2	12.7	10.5	8.2	7.8	7.6
14	11.0	22.2	14.8	15.4	21.3	25.8	16.2	12.8	10.2	8.0	7.8	7.4
15	10.7	29.4	14.5	15.6	21.4	23.6	15.2	13.0	10.1	8.0	7.9	7.4
16	10.2	34.8	14.2	15.4	22.0	21.7	14.7	13.0	10.0	8.0	7.9	7.4
17	9.7	37.2	14.2	14.9	23.1	20.1	14.1	13.2	10.5	8.0	8.0	7.6
18	9.2	38.3	15.3	14.4	22.9	19.0	13.8	14.2	10.4	7.8	8.4	7.8
19	9.0	38.9	17.3	14.1	21.3	19.8	13.6	18.8	9.9	7.8	8.5	7.8
20	9.2	39.1	17.7	14.0	19.5	20.3	12.9	21.9	9.8	8.0	8.2	8.0
21	9.3	38.8	17.8	13.9	18.1	22.1	12.4	22.0	9.6	8.4	8.0	7.9
22	10.0	38.4	17.8	14.0	17.1	24.4	12.1	21.4	9.1	8.4	7.9	7.8
23	11.5	37.4	17.8	14.5	16.4	25.7	11.7	21.3	9.1	8.2	7.8	8.1
24	12.4	35.3	17.4	14.6	16.1	25.7	11.3	21.5	9.1	8.4	7.6	8.2
25	12.7	31.2	17.0	14.5	15.8	24.6	11.1	20.9	9.6	8.6	7.6	8.2
26	12.4	26.0	16.6	14.9	16.1	22.7	11.4	19.0	9.9	9.1	7.6	8.7
27	13.6	22.4	16.1	15.4	16.7	21.3	11.5	16.9	9.8	8.6	7.9	8.9
28	15.7	20.6	16.1	15.3	17.1	20.3	11.7	15.0	9.8	8.5	8.3	9.0
29	14.8	19.5	16.3	15.3	-------	19.3	11.5	14.0	9.2	8.5	8.6	8.7
30	13.9	19.1	16.6	15.0	-------	18.5	10.9	13.5	9.0	8.4	8.9	8.7
31	14.3	-------	17.0	14.6	-------	17.5	-------	13.4	-------	8.1	8.9	-------

TENNESSEE RIVER AT JOHNSONVILLE, TENN.

LOCATION.—Water-stage recorder at Nashville, Chattanooga & St. Louis Railway bridge at Johnsonville, Humphreys County. Zero of gage 320.98 feet above mean sea level.

DRAINAGE AREA.—38,500 square miles.

RECORDS AVAILABLE.—October, 1875, to September, 1930.

EXTREMES.—Maximum discharge during year, 222,000 second-feet Nov. 23, 24 (gage height 28.00 feet;) minimum, 11,000 second-feet Sept. 18 (gage height, 0.3 foot).

1889–1930: Maximum discharge, about 410,000 second-feet Mar. 24, 1897 (gage height, 48.0 feet); minimum, 3,500 second-feet Sept. 11, 1925 (gage height, −2.0 feet).

REMARKS.—Records good. Low-water flow regulated to some extent by operations at Hales Bar Dam and Wilson Dam.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54,700	45,700	86,100	70,000	62,600	74,500	73,700	28,300	40,300	17,200	14,500	15,400
2	59,000	54,700	78,300	72,200	52,600	73,000	67,700	26,500	37,700	16,800	13,700	15,400
3	54,700	66,300	70,700	79,900	50,500	69,200	67,000	26,500	34,500	18,200	12,900	14,100
4	47,700	79,100	67,000	88,500	56,800	64,800	70,700	26,500	32,000	18,200	12,100	13,300
5	43,000	101,000	67,000	93,200	75,300	61,100	71,500	27,100	28,900	17,200	11,700	12,500
6	43,700	116,000	64,800	91,600	94,800	57,500	73,700	26,500	26,500	15,400	11,700	12,100
7	44,300	120,000	61,900	86,900	104,000	78,300	72,200	25,300	25,300	14,500	11,400	11,400
8	56,100	115,000	59,700	113,000	107,000	131,000	70,700	24,800	24,200	13,700	11,400	11,400
9	62,600	104,000	59,000	144,000	108,000	167,000	70,000	24,800	25,300	13,700	11,400	12,500
10	59,000	92,400	59,000	139,000	107,000	185,000	70,700	28,300	27,100	13,700	11,400	12,500
11	51,200	81,400	57,500	122,000	103,000	192,000	70,700	41,600	25,900	14,100	11,400	12,100
12	45,000	70,700	54,700	104,000	97,200	196,000	69,200	51,900	24,800	13,700	12,100	12,500
13	39,700	67,000	51,900	92,400	98,000	195,000	68,500	52,600	23,600	13,300	12,100	13,700
14	33,800	76,000	51,200	88,500	112,000	184,000	67,000	47,100	23,600	12,900	12,100	13,700
15	28,900	104,000	50,500	97,200	127,000	166,000	62,600	43,700	23,000	12,900	12,100	12,900
16	26,500	144,000	49,100	101,000	132,000	144,000	56,100	42,300	22,400	12,500	12,900	12,100
17	24,800	175,000	47,100	95,600	130,000	122,000	51,900	41,600	21,300	12,500	14,100	11,400
18	22,400	194,000	47,100	87,700	126,000	110,000	48,400	48,400	22,400	12,500	15,000	11,000
19	20,800	205,000	53,300	79,900	120,000	112,000	45,700	79,900	23,000	12,500	15,400	11,400
20	18,700	212,000	63,300	74,500	109,000	109,000	43,000	95,600	21,900	12,100	15,800	11,700
21	19,200	217,000	70,000	73,000	95,600	107,000	39,700	113,000	20,800	11,700	15,800	12,100
22	21,300	221,000	72,200	73,700	83,800	113,000	37,000	114,000	20,300	12,100	15,000	12,900
23	21,300	222,000	72,200	70,000	81,400	123,000	34,500	108,000	19,200	13,300	14,100	12,900
24	24,800	222,000	71,500	67,000	81,400	132,000	32,600	104,000	17,700	13,700	12,900	12,500
25	30,100	220,000	70,000	64,800	80,600	135,000	30,700	102,000	17,700	13,700	12,500	12,500
26	34,500	208,000	67,000	61,100	79,900	131,000	28,900	98,000	17,200	14,100	11,700	12,900
27	35,100	181,000	64,800	61,100	76,800	119,000	28,300	86,100	19,200	15,000	11,400	12,900
28	37,700	146,000	67,000	67,000	75,300	108,000	28,900	72,200	19,700	15,800	11,400	14,100
29	47,700	115,000	70,000	67,700	-------	98,000	29,500	59,000	19,700	15,400	11,700	15,400
30	50,500	97,200	70,000	64,000	-------	89,300	30,100	49,800	19,200	15,000	12,900	15,400
31	47,100	-------	70,000	59,000	-------	81,400	-------	44,300	-------	14,500	14,100	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	62,600	18,700	38,900	1.01	1.16
November	222,000	45,700	136,000	3.53	3.94
December	86,100	47,100	63,400	1.65	1.90
January	144,000	59,000	85,500	2.22	2.56
February	132,000	50,500	93,800	2.44	2.54
March	196,000	57,500	120,000	3.12	3.60
April	73,700	28,300	53,700	1.39	1.55
May	114,000	24,800	56,800	1.47	1.70
June	40,300	17,200	24,100	.626	.70
July	18,200	11,700	14,300	.371	.43
August	15,800	11,400	12,900	.335	.39
September	15,400	11,000	12,900	.335	.37
The year	222,000	11,000	59,100	1.54	20.84

TENNESSEE RIVER AT AURORA LANDING, KY.

LOCATION.—Staff gage at mouth of Ledbetter Creek, 2,000 feet north of Marshall-Galloway County line and 1 mile south of Aurora Landing, Marshall County. Zero of gage 301.85 feet above mean sea level.

DRAINAGE AREA.—39,900 square miles.

RECORDS AVAILABLE.—July to September, 1930.

EXTREMES.—Maximum discharge during period of record, 17,600 second-feet July 28, 29 (gage height, 2.8 feet); minimum, 10,700 second-feet July 18, 19, Sept. 18–20 (gage height, 1.8 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1930

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1		15,500	14,800	16	13,400	12,700	13,400
2		14,800	16,200	17	12,000	13,400	12,000
3		14,800	16,200	18	10,700	14,800	10,700
4		13,400	14,800	19	10,700	14,800	[a]10,700
5		12,000	13,400	20	11,400	16,200	10,700
6		12,000	12,700	21	12,000	16,200	12,700
7		12,000	12,000	22	13,400	16,200	12,700
8		12,000	12,000	23	13,400	15,500	13,400
9		12,000	11,400	24	14,800	14,800	13,400
10		12,000	12,000	25	14,800	14,100	12,700
11		12,000	12,000	26	14,100	13,400	13,400
12		12,000	12,000	27	14,800	12,000	13,400
13		12,700	13,400	28	16,200	12,000	13,400
14		12,700	13,400	29	16,900	11,400	14,800
15	13,400	12,700	14,800	30	15,500	12,000	16,200
				31	15,500	13,400	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
July 15–31	16,900	10,700	13,700	0.343	0.22
August	16,200	11,400	13,400	.335	.39
September	16,200	10,700	13,200	.331	.37

[a] Interpolated.

DAVIDSON RIVER NEAR BREVARD, N. C.

LOCATION.—Chain gage at bridge on State highway 284, 1½ miles above mouth, 2 miles below mouth of Avery Creek, and 3½ miles northeast of Brevard, Transylvania County.

DRAINAGE AREA.—41 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 1,230 second-feet Oct. 21 (gage height, 4.32 feet); minimum, 32 second-feet Aug. 31 to Sept. 3 (gage height, 0.50 foot).

1920–1930: Maximum discharge (estimated), 8,400 second-feet Aug. 15, 1928 (gage height, 11.8 feet); minimum, 15 second-feet Sept. 19–21, 1925 (gage height, 0.34 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	544	246	173	122	99	85	88	80	72	62	58	32
2	655	274	220	122	104	84	88	77	69	60	53	32
3	348	544	173	132	122	81	102	77	68	58	51	33
4	288	348	152	122	232	80	104	74	67	56	49	35
5	259	274	152	122	173	78	104	74	69	55	46	36
6	232	232	141	122	141	78	220	104	78	55	46	37
7	196	220	152	132	132	423	122	122	82	54	44	38
8	184	220	152	141	122	259	104	90	85	53	41	40
9	173	220	141	122	113	173	99	84	88	52	40	45
10	162	196	141	122	113	162	94	91	68	51	39	68
11	152	184	132	122	104	152	94	141	66	54	39	491
12	141	288	132	113	104	141	91	184	64	52	39	132
13	132	259	122	113	113	122	91	196	72	51	41	122
14	132	274	122	113	104	113	88	259	69	54	41	104
15	122	318	122	152	113	104	88	162	64	56	42	81
16	113	288	122	122	104	104	85	132	69	55	41	68
17	113	333	132	113	99	104	85	122	72	53	40	61
18	104	288	220	113	96	162	113	132	69	54	43	59
19	104	259	274	104	91	162	113	196	67	51	41	162
20	104	232	207	104	91	141	102	132	63	49	39	196
21	590	196	184	113	88	122	99	113	70	48	68	132
22	379	220	173	113	90	132	94	104	72	47	70	81
23	232	207	173	113	94	122	91	113	68	53	60	63
24	196	196	162	104	91	113	91	104	64	53	50	60
25	184	184	152	101	90	113	88	102	80	51	45	70
26	162	220	141	99	87	104	85	96	62	49	43	75
27	162	207	152	101	85	101	82	91	60	48	41	69
28	152	196	152	113	87	98	85	88	58	49	39	63
29	152	184	152	113	------	94	84	84	69	48	36	60
30	152	173	141	113	------	93	81	78	63	54	34	56
31	173	------	132	102	------	90	------	74	------	61	32	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	655	104	219	5.34	6.16
November	544	173	249	6.07	6.77
December	274	122	158	3.85	4.44
January	152	99	117	2.85	3.29
February	252	85	110	2.68	2.79
March	423	78	129	3.15	3.63
April	220	81	98.5	2.40	2.68
May	259	74	115	2.80	3.23
June	88	58	69.6	1.70	1.90
July	62	47	53.1	1.30	1.50
August	70	32	44.9	1.10	1.27
September	491	32	86.7	2.11	2.35
The year	655	32	121	2.95	40.01

SOUTH FORK OF MILLS RIVER AT THE PINK BEDS, N. C.

LOCATION.—Water-stage recorder at The Pink Beds in Pisgah National Forest, 400 feet downstream from mouth of Thompson Creek and 9 miles north of Brevard, Transylvania County.

DRAINAGE AREA.—9.87 square miles.

RECORDS AVAILABLE.—February, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, 541 second-feet Oct. 21 (gage height, 5.09 feet); minimum, 1.6 second-feet Sept. 3.

1926–1930: Maximum discharge (estimated), 2,220 second-feet Aug. 15, 1928 (gage height, 8.0 feet); minimum, that of Sept. 3, 1930.

REMARKS.—Records excellent below 150 second-feet and fair above.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	204	68	31	30	12.4	15.8	15.8	12.2	9.8	5.8	2.7	1.9
2	243	66	44	30	13.6	15.3	16.2	12.2	9.5	5.6	2.7	1.9
3	104	140	36	31	19.5	14.4	18.0	11.8	8.6	5.2	2.7	1.9
4	70	103	33	27	53	14.7	16.6	11.5	9.2	5.2	2.6	1.9
5	56	72	31	26	38	14.7	15.3	10.4	10.8	5.2	2.6	2.3
6	46	58	30	25	31	22	36	18.0	11.5	5.0	2.6	2.4
7	40	51	31	30	27	103	22	17.6	10.1	4.8	2.4	2.1
8	36	49	31	28	25	44	19.5	25	9.5	4.8	2.3	2.4
9	32	43	29	26	23	34	18.0	22	13.7	4.6	2.3	6.5
10	30	39	27	25	23	29	18.0	17.6	9.8	4.4	2.8	6.0
11	28	36	26	24	22	28	17.6	22	8.9	4.6	2.4	54
12	26	56	26	23	20	26	17.1	17.6	8.6	4.2	2.3	9.8
13	24	52	25	23	22	24	16.6	15.3	10.1	7.2	2.1	6.2
14	23	57	25	22	22	23	16.6	39	10.8	5.6	2.4	7.8
15	22	73	24	28	20	22	16.2	22	9.8	6.8	2.7	9.2
16	22	60	24	23	19.1	21	15.8	16.6	8.6	6.2	2.4	14.1
17	21	66	24	22	18.3	22	15.3	15.3	10.1	5.6	2.4	10.1
18	20	61	51	22	18.5	26	23	15.8	8.9	6.1	4.8	6.5
19	19.5	52	66	20	18.0	26	18	24	7.8	6.5	4.2	33
20	19.0	47	41	19.5	17.6	22	16.6	16.2	7.2	4.8	3.3	20
21	210	43	36	20	17.1	20	15.8	13.2	8.9	4.4	5.4	16.6
22	127	41	36	22	16.6	22	15.8	12.6	7.8	4.0	5.0	10.1
23	66	41	34	20	20.0	20	15.3	15.3	6.8	4.4	3.8	8.0
24	52	39	30	19.0	18.5	19.5	14.4	15.8	6.5	4.8	3.2	7.0
25	43	37	24	18.0	17.6	20.0	14.0	14.0	6.2	4.2	3.0	20
26	37	45	24	17.1	16.6	19.0	13.6	13.2	6.2	3.8	2.7	15.3
27	33	39	27	17.6	15.8	18.0	13.6	12.2	6.2	3.4	2.7	9.2
28	31	36	34	18.0	15.8	17.6	13.6	11.2	5.6	3.4	2.6	7.2
29	32	34	31	17.6	------	17.1	13.6	11.2	5.6	3.2	2.3	6.8
30	36	31	31	19.0	------	17.1	12.9	10.8	5.6	3.0	2.1	6.5
31	42	------	31	16.4	------	16.2	------	10.8	------	3.2	2.0	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	243	19.0	57.9	5.87	6.77
November	140	31	54.5	5.52	6.16
December	66	24	32.0	3.24	3.74
January	31	16.4	22.9	2.32	2.68
February	53	12.4	21.5	2.18	2.27
March	103	14.4	24.3	2.46	2.84
April	36	12.9	17.0	1.72	1.92
May	39	10.4	16.2	1.64	1.89
June	13.7	5.6	8.62	.873	.97
July	7.2	3.0	4.84	.490	.56
August	5.4	2.0	2.89	.293	.34
September	54	1.9	10.2	1.03	1.15
The year	243	1.9	22.8	2.31	31.29

SWANNANOA RIVER AT SWANNANOA, N. C.

LOCATION.—Staff gage at Swannanoa, Buncombe County, 1½ miles below North Fork and 2⅛ miles above Beetree Creek. Gage datum lowered 1 foot July 10, 1930; gage heights Oct. 1, 1929, to July 9, 1930, corrected to new datum.

DRAINAGE AREA.—60 square miles.

RECORDS AVAILABLE.—May, 1907, to June, 1909; January, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, 1,990 second-feet Oct. 22 (gage height, 5.40 feet); minimum, 9 second-feet Aug. 6, Sept. 9.

1907–1909, 1926–1930: Maximum discharge (estimated), 10,400 second-feet Aug. 16, 1928; minimum, 7.6 second-feet July 20–22, 1926.

REMARKS.—Records good except those for July 1 to Sept. 30, which are fair. City of Asheville diverts an average of 3.48 million gallons daily (5.4 second-feet) from North Fork for water supply. Slight regulation caused by operation of a sand and gravel plant 2 miles upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	587	219	85	90	80	61	74	45	54	24	19	11
2	942	206	158	94	74	61	70	40	50	a 21	16	11
3	732	417	125	112	79	58	104	40	45	a 19	15	11
4	309	309	116	97	127	55	101	38	40	a 21	13	11
5	233	219	104	90	147	53	116	38	36	22	13	17
6	193	206	97	85	158	56	219	169	45	23	10	16
7	169	158	95	79	123	181	158	108	45	23	14	14
8	147	147	97	90	112	206	125	85	39	a 20	21	13
9	147	147	92	87	103	137	106	79	51	a 18	18	10
10	137	127	87	87	110	121	94	73	44	16	25	19
11	116	137	90	79	110	106	92	85	39	a 15	21	50
12	101	158	90	77	108	99	79	85	33	a 15	19	44
13	101	219	84	76	114	92	73	77	39	a 17	17	23
14	103	193	80	82	125	92	67	169	41	18	18	16
15	95	233	77	116	119	92	64	137	54	29	21	15
16	88	206	73	101	110	88	59	94	46	28	20	24
17	87	233	104	90	110	82	56	106	101	23	17	23
18	84	181	206	79	104	87	92	97	58	19	20	18
19	79	169	193	77	99	158	80	247	41	15	18	23
20	76	169	137	74	95	127	73	169	42	13	17	106
21	1,080	147	121	87	92	158	67	137	47	13	22	57
22	1,510	137	118	97	88	169	61	116	37	12	82	25
23	417	127	127	84	123	158	85	136	31	13	87	18
24	262	127	123	80	101	137	70	146	37	13	31	18
25	219	158	112	76	74	119	64	109	36	11	19	34
26	193	169	97	71	66	101	60	93	33	10	19	56
27	169	127	95	71	61	87	58	84	34	15	20	27
28	137	116	104	73	61	79	55	75	29	19	11	16
29	121	104	112	71	------	76	49	82	26	22	13	17
30	137	90	106	74	------	71	47	97	25	24	11	18
31	158	------	94	77	------	66	------	59	------	22	11	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	1,510	76	288	May	247	38	100
November	417	90	178	June	101	25	42.6
December	206	73	110	July	29	10	18.5
January	116	71	84.6	August	87	10	21.9
February	158	61	103	September	106	10	25 4
March	206	53	104				
April	219	47	83.9	The year	1,510	10	96.8

a Estimated

NORTH FORK OF SWANNANOA RIVER NEAR BLACK MOUNTAIN, N.C.

LOCATION.—Water-stage recorder one-fourth mile downstream from emergency pumping plant of Asheville water department, 3 miles downstream from forks of river, and 3 miles northwest of Black Mountain, Buncombe County.

DRAINAGE AREA.—23 square miles.

RECORDS AVAILABLE.—January, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year (estimated), 3,640 second-feet Oct. 21 (gage height, 6.02 feet); minimum, 2.3 second-feet Sept. 3, 4 (gage height, 1.06 feet).

1926–1930: Maximum discharge (estimated), 5,050 second-feet Aug. 15, 1928 (gage height, 7.04 feet); minimum, 0.73 second-foot July 20, 21, 1926 (gage height, 0.88 foot).

REMARKS.—Records good. City of Asheville diverted an average of 3.48 million gallons daily (5.4 second-feet) above station for water supply.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	395	172	53	50	26	25	34	26	21	5.4	3.9	2.5
2	504	141	66	51	27	25	34	25	19.0	5.2	3.6	2.4
3	185	283	60	64	32	23	42	24	17.0	4.8	3.3	2.4
4	124	213	54	55	42	21	47	22	16.0	4.4	3.0	2.4
5	99	150	53	51	50	21	42	21	15.0	4.2	2.7	2.6
6	84	122	53	50	43	23	113	115	17.5	3.9	2.5	2.7
7	75	104	51	48	39	197	84	96	15.0	3.7	3.2	2.6
8	66	95	51	55	36	106	70	69	13.8	3.7	4.2	2.5
9	58	97	47	54	33	73	61	61	15.5	3.7	3.6	2.6
10	53	78	47	50	32	68	58	53	13.4	3.9	5.6	3.2
11	48	73	45	47	31	66	54	54	11.4	3.6	4.0	8.0
12	44	91	45	45	30	61	50	54	10.4	3.6	3.2	8.6
13	40	114	44	44	29	57	48	50	11.8	3.9	2.7	6.4
14	36	114	43	43	32	57	47	132	13.4	3.7	3.7	5.2
15	34	147	44	60	27	54	44	91	14.2	4.6	5.4	4.4
16	31	119	47	54	25	51	40	73	12.2	4.8	3.9	5.0
17	28	136	47	47	24	50	38	63	11.0	4.4	3.4	6.0
18	26	159	86	46	24	61	62	57	13.8	4.4	4.4	4.8
19	25	119	124	42	23	80	55	124	10.7	4.4	5.0	15.9
20	24	102	80	39	22	66	47	84	8.6	4.2	3.9	23
21	696	91	66	42	22	58	45	70	10.4	3.9	4.8	13.0
22	643	84	63	45	21	58	43	58	11.4	3.6	10.5	9.5
23	199	76	60	44	26	55	40	55	8.9	3.4	8.0	7.4
24	138	71	53	39	31	53	38	53	8.0	3.3	6.2	6.4
25	112	66	50	37	27	50	36	46	7.6	3.4	5.0	18.2
26	95	73	47	34	27	47	33	42	7.6	3.3	4.6	35
27	84	70	47	33	28	44	32	37	9.5	4.4	4.2	13.0
28	76	64	51	32	26	42	31	32	7.4	5.2	3.7	8.3
29	71	61	55	32	------	40	29	30	6.4	5.6	3.3	7.0
30	76	54	51	32	------	37	28	27	5.8	5.8	2.9	6.2
31	136	------	50	27	------	36	------	24	------	4.6	2.6	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	696	24	139	May	132	21	57.0
November	283	54	111	June	21	5.8	12.1
December	124	43	55.9	July	5.8	3.3	4.23
January	64	27	44.9	August	10.5	2.5	4.23
February	50	21	29.8	September	35	2.4	7.91
March	197	21	55.0				
April	113	28	47.5	The year	696	2.4	47.6

BEETREE CREEK NEAR SWANNANOA, N. C.

LOCATION.—Water-stage recorder 200 feet upstream from intake to Asheville water supply, 1,000 feet upstream from Beetree Reservoir, and 4 miles north of Swannanoa, Buncombe County.

DRAINAGE AREA.—5.7 square miles.

RECORDS AVAILABLE.—February, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, 379 second-feet Oct. 21 (gage height, 4.15 feet); minimum, 0.67 second-foot Aug. 6 (gage height, 0.34 foot).

1926–1930: Maximum discharge, 1,060 second-feet Aug. 15, 1928 (gage height, 5.40 feet); minimum, 0.67 second-foot July 22, 1926, Aug. 6, 1930 (gage height, 0.34 foot).

REMARKS.—Records below 50 second-feet, excellent; others good except maximum for year, which is fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	25	12.2	11.3	6.9	6.3	8.3	6.6	4.95	1.80	0.85	0.82
2	170	24	15.6	11.8	7.7	6.2	8.3	6.2	4.6	1.70	.76	.79
3	66	53	13.2	13.0	8.9	5.8	10.7	6.0	4.2	1.65	.76	.79
4	43	47	12.4	11.3	11.5	5.8	10.3	5.7	4.0	1.60	.73	.76
5	32	34	12.2	10.8	11.5	6.1	9.3	5.4	4.05	1.55	.70	1.23
6	26	28	11.8	10.4	10.4	7.2	23	8.3	4.6	1.45	.86	1.16
7	23	24	11.5	10.4	10.0	22	20	6.9	4.05	1.35	5.0	.92
8	19.5	22	11.5	10.1	9.3	18.9	17.4	6.2	3.6	1.30	3.5	.85
9	16.9	20	10.8	9.7	9.0	16.4	15.6	5.8	6.0	1.25	1.19	1.08
10	15.2	18.4	10.3	9.4	8.8	16.0	14.3	5.5	3.65	1.25	3.35	1.23
11	13.9	17.2	10.1	9.0	8.3	15.4	13.3	7.9	3.3	1.25	2.25	4.0
12	13.0	20	9.8	8.8	8.0	14.5	12.4	7.2	3.15	1.20	1.23	1.76
13	11.7	21	9.6	8.6	8.8	13.9	12.4	7.3	3.6	1.55	1.02	1.19
14	10.8	22	9.4	8.5	8.4	13.2	12.2	16.6	4.15	1.50	1.53	1.34
15	10.0	25	9.4	11.7	7.8	12.4	10.9	12.8	4.0	2.15	2.05	1.49
16	9.3	23	9.3	9.8	7.0	11.5	10.1	11.7	3.25	1.70	1.26	3.0
17	8.8	26	9.1	9.0	6.9	11.8	9.7	10.6	3.55	1.55	1.12	2.35
18	8.3	28	13.3	8.9	6.8	13.2	13.2	10.1	3.6	1.40	1.85	1.41
19	7.9	24	15.2	8.4	6.6	14.9	11.3	19.4	2.85	1.30	1.72	7.1
20	7.8	22	12.6	8.2	6.3	13.5	10.4	14.9	2.65	1.20	1.23	4.05
21	85	20	11.7	9.0	6.2	13.2	10.3	13.2	4.4	1.05	2.65	2.95
22	115	18.6	12.2	9.4	6.0	14.1	9.7	11.7	3.15	1.00	6.5	2.15
23	47	17.4	11.5	8.8	7.6	13.2	9.1	10.4	2.6	1.00	2.55	1.76
24	33	16.2	10.3	8.2	7.2	12.4	8.8	9.7	2.45	1.00	1.60	1.56
25	26	15.2	10.1	7.7	6.5	12.2	8.4	8.5	2.35	1.05	1.30	6.8
26	23	17.6	10.1	7.6	6.7	10.9	8.0	7.8	2.65	1.10	1.16	6.1
27	20	16.0	10.6	7.7	6.3	10.1	7.7	7.0	2.6	1.20	1.08	3.45
28	18.6	14.9	12.4	7.8	6.3	9.7	7.5	6.5	2.15	1.25	1.02	2.45
29	17.4	13.9	12.4	7.8	-------	9.4	7.4	6.1	2.0	1.20	.95	2.15
30	17.9	12.2	11.7	7.6	-------	9.0	6.9	5.7	1.90	1.00	.88	1.85
31	21	-------	11.7	6.9	-------	8.5	-------	5.2	-------	1.00	.82	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	170	7.8	33.8	5.93	6.84
November	53	12.2	22.9	4.02	4.48
December	15.6	9.1	11.4	2.00	2.31
January	13.0	6.9	9.28	1.63	1.88
February	11.5	6.0	7.92	1.39	1.45
March	22	5.8	11.9	2.09	2.41
April	23	6.9	11.2	1.96	2.19
May	19.4	5.2	8.80	1.54	1.78
June	6.0	1.90	3.47	.609	.68
July	2.15	1.00	1.34	.235	.27
August	6.5	.70	1.72	.302	.35
September	7.1	.76	2.28	.400	.45
The year	170	.70	10.5	1.84	25.09

PIGEON RIVER AT CANTON, N. C.

LOCATION.—Water-stage recorder one-third mile above State highway crossing at Canton, Haywood County.

DRAINAGE AREA.—134 square miles.

RECORDS AVAILABLE.—May, 1907, to June, 1909; December, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,080 second-feet Oct. 21 (gage height, 7.40 feet); minimum, 39 second-feet Sept. 3 (gage height, 0.45 foot). 1907–1909, 1928–1930: Maximum discharge, 6,860 second-feet Sept. 26, 1929 (gage height, 8.90 feet); minimum, that of Sept. 3, 1930.

REMARKS.—Records excellent. Slight regulation from operation of gristmill at Woodrow.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,650	1,100	445	232	222	199	236	166	158	128	64	49
2	2,390	638	445	239	206	196	239	166	153	95	59	47
3	971	1,570	378	306	247	166	285	158	145	86	58	44
4	682	1,060	314	232	580	169	277	166	140	81	58	47
5	589	710	302	225	540	175	239	153	142	83	55	48
6	480	600	294	225	396	181	534	202	175	78	55	49
7	422	535	298	254	342	1,080	355	206	164	78	54	52
8	368	525	314	265	310	589	298	175	140	110	52	53
9	332	455	277	243	290	427	277	202	187	79	54	84
10	302	418	269	225	273	382	265	181	150	76	64	172
11	277	409	262	219	254	373	254	315	130	99	59	385
12	262	568	254	216	247	332	247	254	128	79	54	154
13	247	567	247	212	254	314	236	232	130	93	49	90
14	236	672	243	212	281	306	232	686	153	116	52	146
15	219	740	239	364	247	290	225	346	153	97	58	122
16	209	616	232	254	222	277	216	294	132	99	52	10
17	199	611	225	225	222	273	209	285	137	86	52	140
18	190	628	346	222	216	394	281	265	135	83	72	81
19	184	535	391	202	212	611	239	474	116	79	81	410
20	181	485	269	206	206	386	212	332	110	73	59	250
21	1,230	455	254	225	199	342	206	281	130	71	110	164
22	1,070	432	262	328	193	346	199	262	142	68	131	120
23	540	445	258	258	247	328	196	247	114	66	72	101
24	432	414	236	225	258	314	193	247	103	93	59	95
25	378	386	339	206	219	319	184	219	103	79	55	92
26	342	470	262	202	212	302	178	206	99	76	53	190
27	324	422	239	202	202	281	175	196	114	71	58	116
28	310	386	302	222	196	273	172	187	95	65	51	92
29	319	364	281	222	-------	265	175	181	92	72	49	84
30	319	310	243	216	-------	254	169	172	95	68	47	86
31	355	-------	239	199	-------	247	-------	166	-------	86	48	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,390	181	516	3.85	4.44
November	1,570	310	584	4.36	4.86
December	445	225	289	2.16	2.49
January	364	199	235	1.75	2.02
February	580	193	268	2.00	2.08
March	1,080	166	335	2.50	2.88
April	534	169	240	1.79	2.00
May	686	153	246	1.84	2.12
June	187	92	132	.985	1.10
July	128	65	84.3	.629	.73
August	131	47	61.1	.456	.53
September	410	44	122	.910	1.02
The year	2,390	44	259	1.93	26.27

PIGEON RIVER NEAR HEPCO, N. C.

LOCATION.—Water-stage recorder three-fourths mile downstream from Jonathan Creek and 2½ miles upstream from Hepco, Haywood County.
DRAINAGE AREA.—342 square miles.
RECORDS AVAILABLE.—July, 1927, to September, 1930.
EXTREMES.—Maximum discharge during year, 5,810 second-feet Oct. 2 (gage height, 7.07 feet); minimum, 106 second-feet Sept. 3, 4 (gage height, 1.00 foot). 1927–1930: Maximum discharge (estimated), 30,300 second-feet Aug. 16, 1928; minimum, that of Sept. 3, 4, 1930.
REMARKS.—Records good except those below 200 second-feet and those for Mar. 10 to Apr. 7, which are poor.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,280	836	648	620	535	555	702	462	444	327	165	124
2	3,870	978	976	615	585	555	790	466	426	270	146	118
3	1,700	2,290	910	760	702	511	940	452	409	238	139	109
4	1,200	2,240	730	631	1,370	502	970	448	392	224	139	202
5	1,000	1,340	702	595	1,450	516	760	434	396	224	136	190
6	910	1,090	702	585	1,030	520	1,160	558	480	217	133	142
7	790	970	702	595	850	1,760	850	620	448	210	168	139
8	702	1,030	760	636	820	1,640	790	554	392	238	146	152
9	631	910	675	600	760	1,160	730	550	462	217	168	215
10	580	820	648	575	730	1,000	702	516	422	259	200	452
11	540	790	636	560	670	1,060	664	835	364	245	181	714
12	511	1,030	620	545	653	880	642	775	344	217	142	474
13	498	1,270	605	540	675	790	631	642	348	248	133	274
14	475	1,370	600	545	790	730	610	1,580	372	316	133	273
15	452	1,520	595	840	653	702	595	966	372	348	152	386
16	439	1,340	580	730	605	702	575	790	352	300	139	266
17	417	1,300	570	600	580	760	555	760	444	274	130	356
18	405	1,370	730	585	575	940	760	817	413	263	214	245
19	396	1,120	970	545	560	1,640	702	1,410	336	224	234	616
20	388	1,030	702	550	545	1,230	595	970	308	203	174	816
21	1,360	940	605	590	530	940	555	790	380	194	399	484
22	2,230	910	653	760	470	1,030	545	730	454	187	415	348
23	1,040	910	670	730	629	910	530	702	324	187	231	278
24	850	880	585	620	760	850	530	730	297	207	174	252
25	730	820	575	575	605	970	502	653	289	248	152	263
26	702	1,000	570	560	605	940	488	560	289	203	139	396
27	658	940	615	555	585	760	484	535	304	187	136	356
28	626	850	790	580	555	730	480	511	270	194	136	270
29	631	790	820	595	-------	702	484	493	263	203	124	231
30	636	670	675	600	-------	702	475	480	270	184	118	224
31	636	-------	648	545	-------	702	-------	457	-------	184	121	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,870	388	912	2.67	3.08
November	2,290	670	1,110	3.24	3.62
December	976	570	686	2.01	2.32
January	840	540	612	1.79	2.06
February	1,450	470	710	2.08	2.17
March	1,760	502	884	2.58	2.97
April	1,160	475	660	1.93	2.15
May	1,580	434	685	2.00	2.31
June	480	263	369	1.08	1.20
July	348	184	234	.684	.79
August	415	118	172	.503	.58
September	816	109	312	.912	1.02
The year	3,870	109	611	1.79	24.27

PIGEON RIVER NEAR MOUNT STERLING, N. C.

LOCATION.—Water-stage recorder just upstream from Hurricane Creek and 5 miles southeast of Mount Sterling, Haywood County.

DRAINAGE AREA.—453 square miles.

RECORDS AVAILABLE.—September, 1924, to April, 1930 (discontinued).

EXTREMES.—Maximum discharge during year, about 11,400 second-feet Nov. 19 (gage height, 7.78 feet); minimum (due to diversion), 24 second-feet Apr. 18 (gage height, 0.30 foot).

1924–1930: Maximum discharge (estimated), 39,600 second-feet Aug. 16, 1928; minimum prior to Oct. 27, 1929, 41 second-feet Sept. 8, 1925 (gage height, 0.62 foot).

REMARKS.—Records good except those for discharges below 100 second-feet, which are fair. From Cataloochee Reservoir 4 miles upstream, in which storage began Oct. 27, 1929, water was diverted past station through Waterville power plant 8 miles downstream, beginning Nov. 12. Slight diurnal fluctuation prior to Oct. 27; excessive regulation and diversion after Nov. 12.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1	2,570	426	798	784	670	322	148
2	5,520	475	975	984	611	836	322
3	2,300	527	1,130	701	798	399	584
4	1,480	554	902	701	1,840	31	522
5	1,220	582	867	701	1,850	31	598
6	1,050	611	832	970	1,330	235	1,160
7	975	554	832	701	1,000	1,670	650
8	867	337	867	701	975	1,940	581
9	798	277	832	701	778	1,420	416
10	733	277	798	701	446	1,020	421
11	701	277	765	701	463	1,190	373
12	670	296	733	-------	574	915	460
13	640	1,510	733	-------	512	1,080	851
14	611	1,610	733	-------	526	642	397
15	582	1,810	516	-------	660	750	71
16	554	1,870	320	-------	663	892	208
17	527	1,420	392	-------	334	599	239
18	527	1,690	731	-------	101	826	168
19	501	1,930	779	-------	273	1,960	-------
20	501	1,480	974	-------	218	1,310	-------
21	812	1,220	701	-------	177	991	-------
22	3,150	1,130	670	-------	300	1,060	-------
23	1,220	1,130	670	-------	734	1,160	-------
24	975	1,050	670	-------	473	665	-------
25	832	975	670	-------	277	921	-------
26	765	1,220	670	-------	362	723	-------
27	465	1,220	670	-------	354	458	-------
28	52	1,050	968	-------	288	596	-------
29	236	975	941	701	-------	698	-------
30	380	867	1,000	701	-------	779	-------
31	403	-------	701	701	-------	340	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	5,520	52	1,050	February	1,850	101	628
November	1,930	277	978	March	1,960	31	854
December	1,130	320	769	April 1–18	1,160	71	454

NOTE.—No record obtained Jan. 12–28.

PIGEON RIVER AT HARTFORD, TENN.

LOCATION.—Water-stage recorder 600 feet below highway bridge at Hartford, Cocke County. Zero of gage, 1,245.84 feet above mean sea level.

DRAINAGE AREA.—538 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 7,810 second-feet May 19 (gage height, 6.63 feet); minimum, 11 second-feet Aug. 17, 18 (gage height, 0.62 foot).

1925–1930: Maximum discharge, about 17,200 second-feet Aug. 16, 1928 (gage height, 10.2 feet); minimum, that of Aug. 17, 18, 1930.

REMARKS.—Records fair. Considerable regulation caused by operation of hydroelectric plant 5 miles upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,440	484	854	899	773	636	702	622	400	482	462	162
2	4,960	565	892	983	747	670	938	628	760	521	229	358
3	3,080	683	1,220	972	836	1,070	1,310	668	710	505	52	355
4	1,910	747	1,060	827	1,850	629	1,600	628	695	238	449	357
5	1,500	747	950	827	2,650	540	1,210	638	722	295	472	331
6	1,310	739	940	1,100	1,850	764	1,320	642	728	358	452	214
7	1,140	723	940	809	1,280	2,940	1,850	868	510	552	482	96
8	992	622	950	791	1,260	3,420	1,100	882	378	544	422	344
9	883	382	921	764	1,110	2,230	1,180	770	765	504	241	258
10	836	370	845	755	966	2,000	1,130	585	775	650	192	291
11	782	364	818	747	680	2,630	1,090	1,440	738	532	480	407
12	747	364	782	739	1,030	1,900	735	1,540	735	334	434	379
13	723	1,080	773	747	821	1,710	970	1,300	745	285	474	280
14	691	1,540	773	723	986	1,330	1,240	2,610	470	706	458	204
15	645	1,800	608	836	1,020	1,180	772	2,100	295	750	356	786
16	622	2,020	436	972	849	1,320	860	1,160	525	707	141	612
17	593	1,630	462	902	1,090	1,280	898	1,200	524	640	11	567
18	579	1,800	888	845	579	1,480	885	1,150	482	596	260	586
19	565	1,940	973	755	824	3,350	[a] 1,160	2,600	482	166	318	690
20	565	1,860	1,120	739	756	2,460	[a] 699	1,980	469	40	257	818
21	622	1,320	854	668	659	1,900	930	1,340	[a] 460	458	352	444
22	2,900	1,160	[a] 972	747	528	1,580	920	1,200	[a] 500	526	325	440
23	1,430	1,100	[a] 1,150	921	758	1,460	785	1,180	[a] 720	529	224	446
24	1,020	1,110	[a] 1,420	1,010	1,200	1,330	615	932	[a] 490	510	68	462
25	874	1,030	[a] 1,610	724	836	1,260	885	1,030	[a] 520	533	349	488
26	827	1,210	[a] 2,160	622	786	1,480	[a] 600	1,160	[a] 580	295	356	508
27	630	1,340	[a] 2,240	749	784	915	[a] 498	892	[a] 580	259	376	235
28	142	1,170	1,160	690	786	912	1,010	862	[a] 260	454	373	76
29	150	1,090	1,060	764	------	925	610	845	[a] 340	505	352	406
30	402	972	1,140	773	------	950	610	845	562	512	189	388
31	452	------	836	773	------	1,090	------	532	------	452	55	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,960	142	1,100	2.04	2.35
November	2,020	364	1,070	1.99	2.22
December	2,240	436	1,030	1.91	2.20
January	1,100	622	812	1.51	1.74
February	2,650	528	1,010	1.88	1.96
March	3,420	540	1,530	2.84	3.27
April	1,850	498	970	1.80	2.01
May	2,610	532	1,120	2.08	2.40
June	775	260	564	1.05	1.17
July	750	40	464	.862	.99
August	482	11	312	.580	.67
September	818	76	400	.743	.83
The year	4,960	11	864	1.61	21.81

[a] Estimated.

JONATHAN CREEK NEAR COVE CREEK, N. C.

LOCATION.—Water-stage recorder 500 yards downstream from ford, three-fourths mile upstream from confluence with Pigeon River, and 2 miles downstream from mouth of creek at Cove Creek post office, Haywood County.
DRAINAGE AREA.—67 square miles.
RECORDS AVAILABLE.—May to September, 1930.
EXTREMES.—Maximum discharge during period, 630 second-feet Sept. 14 (gage height, 3.37 feet); minimum, 24 second-feet Sept. 2, 3 (gage height, 0.73 foot).
REMARKS.—Records excellent. Slight regulation.

Daily and monthly discharge, in second-feet, 1930

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1		110	60	35	33	16		80	64	33	53
2		105	56	35	28	17		134	84	34	52
3		100	54	34	26	18		94	74	57	43
4		98	53	34	74	19		80	54	47	120
5		102	52	33	51	20		76	50	40	114
6		112	51	32	38	21		99	48	134	90
7		105	49	56	42	22		82	48	72	64
8		96	47	42	38	23		73	48	49	54
9		118	44	54	41	24	185	70	46	41	49
10		94	52	53	91	25	162	69	68	37	55
11		87	50	44	144	26	147	66	51	35	68
12		86	45	35	74	27	135	62	44	34	80
13		87	64	35	58	28	130	60	47	31	56
14		86	65	37	92	29	126	64	50	30	49
15		81	92	40	130	30	119	63	41	29	46
						31	114		40	30	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
May 24–31	185	114	140	2.09	0.62
June	134	60	88.0	1.31	1.46
July	92	40	54.5	.813	.94
August	134	29	43.0	.642	.74
September	144	26	65.1	.972	1.08

NOLICHUCKY RIVER AT POPLAR, N. C.

LOCATION.—Staff gage at Poplar, Mitchell County, 4 miles downstream from Cane River and 5 miles upstream from State line.
DRAINAGE AREA.—609 square miles.
RECORDS AVAILABLE.—July, 1925, to September, 1930.
EXTREMES.—Maximum discharge during year, 17,500 second-feet Oct. 22 (gage height, 9.05 feet); minimum, 190 second-feet Aug. 14 (gage height, 1.10 feet).
1925–1930: Maximum discharge, 34,600 second-feet Aug. 16, 1928 (gage height, 14.7 feet); minimum discharge, 89 second-feet Sept. 7, 1925.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2 910	2, 050	1, 350	1, 110	1, 000	840	840	605	571	425	306	246
2	8, 460	2, 380	1, 420	1, 170	945	790	840	650	528	358	235	230
3	4, 320	2, 550	1, 350	1, 230	1, 170	790	890	605	504	332	252	225
4	2, 910	2, 550	1, 350	1, 170	1, 540	840	1, 000	605	512	326	246	210
5	1, 900	2, 210	1, 290	1, 110	1, 900	790	1, 000	650	520	380	225	230
6	1, 610	1, 820	1, 170	1, 000	1, 420	790	1, 610	742	528	306	210	215
7	1, 350	1, 540	1, 110	1, 000	1, 230	1, 820	1, 540	1, 110	650	332	230	225
8	1, 230	1, 420	1, 060	1, 000	1, 110	2, 550	1, 290	890	571	282	246	425
9	1, 110	1, 290	1, 000	1, 000	1, 000	1, 900	1, 170	840	695	276	270	332
10	1, 060	1, 290	1, 000	1, 000	1, 000	1, 480	1, 000	742	588	300	504	326
11	1, 000	1, 230	945	945	945	1, 480	890	840	512	320	300	402
12	945	2, 050	1, 000	890	945	1, 540	945	945	448	282	258	528
13	890	1, 750	1, 000	890	890	1, 350	945	945	496	306	235	464
14	840	1, 820	1, 110	945	1, 110	1, 290	945	1, 420	520	352	313	365
15	840	2, 050	1, 110	1, 170	945	1, 170	890	1, 350	588	418	512	346
16	790	1, 900	1, 000	1, 170	890	1, 110	890	1, 000	528	432	410	320
17	790	2, 210	1, 060	1, 000	840	1, 060	840	890	554	380	320	339
18	742	2, 730	1, 230	945	840	1, 230	1, 000	840	528	380	650	380
19	742	2, 050	1, 480	1, 110	840	2. 210	1, 060	1, 290	464	332	562	472
20	650	1, 750	1, 350	1, 170	840	2, 380	1, 000	1, 230	440	270	365	1, 000
21	890	1, 610	1, 290	945	790	1, 610	945	1, 000	546	313	464	790
22	13, 300	1, 420	1, 170	1, 060	742	1, 350	840	890	742	264	742	554
23	4, 540	1, 420	1, 060	1, 060	945	1, 290	790	840	504	225	1, 060	410
24	2, 730	1, 420	1, 000	1, 060	1, 170	1, 170	790	945	448	235	554	432
25	1, 900	1, 420	1, 000	1, 110	1, 000	1, 170	742	790	418	246	388	520
26	1, 900	1, 420	1, 110	890	945	1, 170	742	742	472	230	306	562
27	1, 540	1, 350	1, 230	945	890	1, 000	742	695	790	554	270	554
28	1, 420	1, 290	1, 170	890	890	945	650	650	571	488	306	418
29	1, 480	1, 230	1, 170	890	-------	890	695	588	410	456	282	358
30	1, 610	1, 290	1, 230	945	-------	890	650	605	380	380	258	313
31	1, 820	-------	1, 170	1. 000	-------	890	-------	605	-------	358	252	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	13, 300	650	2, 200	3. 61	4. 16
November	2, 730	1, 230	1, 750	2. 87	3. 20
December	1, 480	945	1, 160	1. 90	2. 19
January	1, 230	890	1, 030	1. 69	1. 95
February	1, 900	742	1, 030	1. 69	1. 76
March	2, 550	790	1, 280	2. 10	2. 42
April	1, 610	650	939	1. 54	1. 72
May	1, 420	588	856	1. 41	1. 63
June	790	380	534	. 877	. 98
July	554	225	340	. 558	. 64
August	1, 060	210	372	. 611	. 70
September	1, 000	210	406	. 667	. 74
The year	13, 300	210	992	1. 63	22. 09

NOLICHUKY RIVER AT EMBREEVILLE, TENN.

LOCATION.—Chain gage at county highway bridge at Embreeville, Washington County, 3½ miles northwest of Erwin. Zero of gage 1,513.04 feet above mean sea level.

DRAINAGE AREA.—795 square miles.

RECORDS AVAILABLE.—July, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 22,300 second-feet Oct. 22 (gage height, 10.55 feet); minimum (estimated), 280 second-feet Sept. 6.

1920–1930: Maximum discharge, 35,300 second-feet Aug. 16, 1928 (gage height, 13.8 feet); minimum, 85 second-feet Sept. 8, 9, 1925 (gage height, 1.60 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,540	1,420	1,540	1,480	1,190	1,190	1,080	785	980	582	348	313
2	12,900	1,790	1,540	1,420	1,140	1,190	1,080	742	930	545	330	302
3	6,000	2,830	1,660	1,420	1,240	1,140	1,190	700	785	582	330	280
4	3,000	2,200	1,660	1,420	1,540	1,140	1,420	660	700	508	342	291
5	2,200	1,920	1,540	1,300	1,920	1,140	1,480	660	620	414	324	291
6	1,920	1,920	1,420	1,300	2,200	1,240	1,540	620	582	374	291	[a] 280
7	1,660	1,660	1,360	1,420	1,660	1,480	2,830	1,190	742	348	313	[a] 295
8	1,360	1,540	1,300	1,420	1,540	2,510	2,060	1,030	742	330	313	[a] 555
9	1,240	1,420	1,190	1,300	1,420	2,510	1,660	880	785	335	302	[a] 435
10	1,030	1,540	1,140	1,240	1,190	2,510	1,420	880	742	387	335	[a] 425
11	980	1,420	1,240	1,300	1,030	2,350	1,360	980	700	428	414	[a] 525
12	980	1,420	1,190	1,300	1,080	2,510	1,240	1,030	660	374	361	[a] 690
13	1,030	1,300	1,140	1,240	1,190	2,060	1,190	1,030	620	387	335	[a] 605
14	930	1,790	1,140	1,190	1,190	1,790	1,190	1,030	582	470	313	545
15	880	4,110	1,190	1,190	1,240	1,540	1,190	1,360	582	470	324	456
16	880	3,350	1,190	1,240	1,140	1,480	1,080	1,420	545	428	348	442
17	785	2,200	1,190	1,420	1,140	1,420	1,030	1,300	660	442	335	442
18	742	2,200	1,190	1,420	1,190	1,660	1,030	1,190	700	387	470	[a] 495
19	785	2,350	1,240	1,420	1,300	5,000	1,080	1,240	620	348	545	[a] 615
20	930	2,350	1,240	1,360	1,240	3,720	1,030	1,480	545	348	545	[a]1,300
21	930	2,200	1,300	1,420	1,190	3,000	980	1,420	582	335	582	[a]1,030
22	17,700	1,920	1,480	1,420	1,300	2,060	980	1,360	620	324	880	[a] 725
23	5,740	1,660	1,660	1,360	1,190	1,920	930	1,300	582	302	742	[a] 535
24	2,830	1,420	1,540	1,300	1,190	1,660	832	1,360	545	313	660	[a] 565
25	2,510	1,540	1,540	1,300	1,190	1,480	880	1,080	545	335	508	[a] 680
26	2,350	1,660	1,480	1,420	1,140	1,420	832	930	620	308	428	[a] 735
27	1,790	1,790	1,480	1,420	1,140	1,360	785	880	980	335	387	[a] 725
28	1,660	1,480	1,420	1,420	1,190	1,240	785	880	930	449	348	[a] 545
29	1,480	1,420	1,420	1,480	-------	1,190	880	980	832	620	354	[a] 465
30	1,420	1,480	1,300	1,540	-------	1,140	832	980	660	545	324	[a] 410
31	1,360	-------	1,660	1,420	-------	1,080	-------	980	-------	470	348	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	17,700	742	2,630	3.31	3.82
November	4,110	1,300	1,910	2.40	2.68
December	1,660	1,140	1,370	1.72	1.98
January	1,540	1,190	1,360	1.71	1.97
February	2,200	1,030	1,300	1.64	1.71
March	5,000	1,080	1,840	2.31	2.66
April	2,830	785	1,200	1.51	1.68
May	1,480	620	1,040	1.31	1.51
June	980	545	691	.869	.97
July	620	302	414	.521	.60
August	880	291	412	.518	.60
September	1,300	280	533	.670	.75
The year	17,700	280	1,230	1.55	20.93

[a] Estimated

NOLICHUCKY RIVER NEAR MORRISTOWN, TENN.

LOCATION.—Water-stage recorder at Jones Bridge on Morristown-Newport highway 3 miles below mouth of Bent Creek and 9 miles southeast of Morristown, Hamblen County. Zero of gage 1,004.40 feet above mean sea level.

DRAINAGE AREA.—1,690 square miles.

RECORDS AVAILABLE.—November, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, about 23,800 second-feet Oct. 22 (gage height, 17.0 feet); minimum mean daily discharge, about 212 second-feet Sept. 8 (gage height, estimated, 1.55 feet).

1920–1930: Maximum discharge, about 27,700 second-feet Feb 24, 1927, Aug. 16, 1928; maximum gage height, 18.9 feet Aug. 16, 1928; minimum discharge, 22 second-feet Sept. 7, 28, 1925 (gage height, 1.00 foot).

REMARKS.—Records good except those for estimated periods, which are fair. Considerable regulation at low water caused by operation of power plant 22 miles upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,050	2,100	1,850	2,680	1,800	2,000	2,100	1,460	1,040	1,270	355	a 360
2	5,570	2,360	2,050	2,460	1,800	1,800	2,100	1,460	992	1,360	315	a 400
3	9,580	3,810	2,410	3,440	2,680	2,050	2,150	1,410	1,270	1,320	519	a 500
4	5,010	4,870	2,410	3,200	3,680	1,900	2,460	1,080	1,220	1,100	675	a 640
5	3,320	4,200	2,050	2,460	4,590	1,750	2,520	1,040	1,410	708	740	a 550
6	2,580	3,200	1,900	2,520	3,940	1,750	3,020	1,460	1,360	880	390	a 500
7	2,520	2,740	1,900	2,250	3,200	3,080	4,870	1,270	1,110	663	350	531
8	2,100	2,630	1,800	2,200	2,680	4,870	4,200	1,460	a 960	468	330	a 212
9	1,900	2,300	2,150	2,100	2,300	5,850	3,200	1,460	a 1,130	355	315	633
10	1,700	2,100	2,100	2,100	2,410	4,200	2,680	1,500	1,220	335	462	805
11	1,650	2,200	1,900	1,850	2,200	4,200	2,460	a 1,000	1,180	365	462	740
12	1,460	2,300	1,800	1,700	2,050	2,200	2,250	a 1,100	1,180	350	740	779
13	1,100	2,630	1,750	1,900	3,200	3,680	2,050	a 1,200	1,040	473	495	434
14	1,360	a 3,320	1,700	1,850	4,870	3,200	2,150	a 1,400	a 500	688	418	850
15	1,500	a 3,650	1,410	1,850	4,200	2,740	2,100	a 2,100	a 440	701	385	615
16	1,500	a 4,070	2,050	2,050	2,850	2,520	2,000	a 2,200	a 400	1,090	865	740
17	1,500	a 5,150	2,100	2,150	2,520	2,580	1,950	a 1,800	375	468	928	440
18	1,360	a 4,730	2,050	2,050	2,250	3,680	1,850	1,550	a 650	335	688	615
19	1,220	a 3,440	2,460	1,600	2,150	8,290	1,800	2,900	a 900	468	850	633
20	904	a 3,200	2,580	1,850	2,050	9,920	1,850	3,020	1,080	842	1,270	1,110
21	842	a 3,080	2,300	2,150	1,950	6,750	2,000	2,410	1,180	555	1,750	896
22	10,900	a 2,850	1,900	3,080	1,850	4,330	1,800	1,900	1,220	1,000	1,500	468
23	11,600	a 2,630	2,150	2,960	1,950	3,560	1,700	1,650	714	490	896	984
24	5,570	2,630	2,000	2,410	2,630	3,320	1,650	1,500	1,220	345	1,130	912
25	3,940	2,630	1,800	2,000	2,680	3,020	1,550	1,320	1,080	495	1,270	555
26	2,960	2,520	1,800	1,800	2,520	2,960	1,500	1,650	531	429	1,220	645
27	2,460	2,520	2,000	2,000	2,360	2,800	1,220	1,550	501	325	1,180	1,130
28	2,580	2,520	3,560	2,000	2,200	2,520	1,360	1,460	850	440	1,130	976
29	2,250	2,520	4,200	1,950	------	2,360	1,600	1,500	1,000	1,130	1,080	440
30	2,100	2,300	4,200	1,900	------	2,150	1,500	1,410	740	920	440	513
31	2,100	------	3,020	1,900	------	2,300	------	1,220	------	753	a 400	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,600	842	3,140	1.86	2.14
November	5,150	2,100	3,040	1.80	2.01
December	4,200	1,410	2,240	1.33	1.53
January	3,440	1,600	2,210	1.31	1.51
February	4,870	1,800	2,700	1.60	1.67
March	9,920	1,750	3,560	2.11	2.43
April	4,870	1,220	2,190	1.30	1.45
May	3,020	1,000	1,590	.941	1.08
June	1,410	375	950	.562	.63
July	1,360	325	681	.403	.46
August	1,750	315	760	.450	.52
September	1,130	212	654	.387	.43
The year	11,600	212	1,970	1.17	15.86

a Estimated.

LITTLE PIGEON RIVER AT SEVIERVILLE, TENN.

LOCATION.—Water-stage recorder at Eckel's farmhouse, half a mile below Sevierville, Sevier County, and confluence of East and West Forks. Zero of gage 882.26 feet above mean sea level.

DRAINAGE AREA.—346 square miles.

RECORDS AVAILABLE.—November, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,800 second-feet Mar. 19 (gage height, 6.32 feet); minimum, 14 second-feet Aug. 14 (gage height, 0.55 foot).
1920–1930: Maximum discharge, about 28,300 second-feet June 29, 1928 (gage height, 15.4 feet); minimum, 5 second-feet Oct. 12, Nov. 3, 1923.

REMARKS.—Records good. Low-water flow regulated by power plants on both forks of river.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	383	219	341	412	351	520	476	241	316	136	80	62
2	1,780	215	434	429	464	558	526	241	277	139	75	55
3	1,880	986	412	823	598	470	1,380	241	259	111	69	59
4	855	935	346	617	1,380	446	2,260	228	241	107	64	57
5	604	591	330	532	1,430	423	1,280	211	228	101	64	53
6	488	440	325	476	935	423	1,280	264	250	91	64	59
7	406	372	320	429	715	2,260	1,150	306	372	98	51	59
8	346	362	335	400	604	3,030	887	282	292	91	55	64
9	296	335	325	378	458	1,830	708	341	245	85	64	55
10	268	301	306	346	500	1,240	617	389	232	82	69	67
11	245	287	292	330	429	1,430	552	1,030	219	85	85	236
12	228	306	287	316	394	1,280	526	745	202	85	77	178
13	223	952	282	306	1,000	1,070	500	665	194	147	57	128
14	215	1,200	282	296	2,260	831	464	2,100	182	346	57	121
15	194	2,160	296	406	1,150	745	429	1,050	166	356	59	383
16	186	1,330	320	406	855	672	400	665	162	292	64	186
17	186	2,320	311	341	672	651	378	565	186	202	42	143
18	174	2,730	330	335	578	1,200	372	513	282	268	178	111
19	174	1,280	686	282	526	3,100	383	3,820	194	211	287	121
20	162	847	458	306	476	2,260	346	1,210	162	162	136	228
21	207	644	341	513	440	1,280	330	1,020	245	139	250	236
22	400	558	346	911	417	1,070	316	644	282	114	494	158
23	320	546	335	815	738	895	306	617	207	128	232	132
24	245	520	296	598	1,000	768	301	760	162	95	166	121
25	194	464	292	513	745	815	282	565	150	158	121	166
26	202	644	320	452	686	871	277	452	143	170	104	520
27	186	630	406	417	630	722	259	406	136	121	85	362
28	182	552	952	394	565	651	250	362	139	114	75	264
29	194	464	855	372	-------	624	259	341	121	107	77	186
30	193	383	604	356	-------	578	254	458	121	95	72	150
31	215	-------	482	325	-------	513	-------	351	-------	85	57	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,880	162	382	1.10	1.27
November	2,730	215	786	2.27	2.53
December	952	282	395	1.14	1.31
January	911	282	446	1.29	1.49
February	2,260	351	750	2.17	2.26
March	3,100	423	1,070	3.09	3.56
April	2,260	250	591	1.71	1.91
May	3,820	211	712	2.06	2.38
June	372	121	212	.613	.68
July	356	82	146	.422	.49
August	494	42	111	.321	.37
September	520	53	157	.454	.51
The year	3,820	42	478	1.38	18.76

SOUTH FORK OF HOLSTON RIVER AT RIVERSIDE, NEAR CHILHOWIE, VA.

LOCATION.—Chain gage at Riverside Bridge, half a mile downstream from Bebord's flour mill and 5 miles southeast of Chilhowie, Smyth County.

DRAINAGE AREA.—94.5 square miles.

RECORDS AVAILABLE.—November, 1920, to September, 1930. June, 1907, to December, 1909, at site below mouth of Grose Creek, 4½ miles downstream.

EXTREMES.—Maximum discharge during year, 1,380 second-feet Oct. 2 (gage height, 4.43 feet); minimum, 17 second feet Aug. 12, 28, Sept. 30 (gage height, 0.72 foot).

1920–1930: Maximum discharge, 4,450 second-feet June 12, 1923 (gage height, 7.7 feet); minimum (regulated), 3.4 second-feet Sept. 8, 1923 (gage height, 0.28 foot).

REMARKS.—Records good. Several small mills above gage cause considerable diurnal fluctuation during low water.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	65	99	128	74	65	88	58	56	30	23	21
2	1,170	74	107	130	76	65	83	57	53	28	24	24
3	370	151	106	130	82	65	99	58	49	28	22	21
4	186	250	113	113	250	64	140	56	47	32	24	24
5	162	223	109	109	403	68	140	50	48	26	24	22
6	106	186	100	107	307	74	264	67	49	28	22	20
7	96	130	100	102	264	151	420	58	50	30	34	24
8	80	111	116	96	186	712	278	58	45	24	24	23
9	72	97	113	94	151	354	210	63	50	27	26	22
10	74	92	111	91	136	264	174	61	45	27	25	23
11	57	86	111	86	116	210	140	97	41	26	21	22
12	65	84	99	84	100	186	128	140	45	25	20	26
13	60	86	109	80	96	174	115	107	45	26	21	22
14	53	86	97	80	96	162	107	100	41	32	27	24
15	53	136	91	97	89	151	100	107	38	33	34	22
16	38	292	91	82	86	138	94	104	36	27	23	28
17	56	250	116	78	84	130	88	91	36	25	24	42
18	50	760	126	80	86	134	88	104	41	24	24	25
19	44	420	210	74	80	354	82	307	36	26	26	29
20	44	264	162	70	80	420	78	236	34	24	23	25
21	58	198	*140	74	80	292	78	162	34	25	23	26
22	264	174	116	76	80	223	78	124	35	23	70	28
23	198	151	*115	78	80	174	74	111	40	25	37	19
24	151	140	*115	78	80	151	70	97	40	24	27	21
25	116	111	116	77	80	151	67	84	37	24	27	44
26	96	113	113	71	82	130	67	76	32	24	22	26
27	92	106	162	72	74	116	61	70	32	34	26	30
28	77	109	*250	77	71	107	63	67	30	34	17	24
29	91	113	174	77	------	100	64	64	30	41	22	24
30	68	107	162	76	------	97	65	61	30	27	22	20
31	67	------	140	74	------	88	------	57	------	24	23	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,170	38	135	1.43	1.65
November	760	65	172	1.82	2.03
December	250	91	125	1.32	1.52
January	130	70	88.4	.935	1.08
February	403	71	124	1.31	1.36
March	712	64	180	1.90	2.19
April	420	61	120	1.27	1.42
May	307	50	95.2	1.01	1.16
June	56	30	40.8	.432	.48
July	41	23	27.5	.291	.34
August	70	17	26.0	.275	.32
September	44	19	25.0	.265	.30
The year	1,170	17	96.5	1.02	13.85

* Estimated.

SOUTH FORK OF HOLSTON RIVER AT BLUFF CITY, TENN.

LOCATION.—Water-stage recorder at highway bridge at Bluff City, Sullivan County, 250 feet below Virginia & Southwestern Railway bridge, and 1 mile below mouth of Indian Creek. Zero of gage 1,368.09 feet above mean sea level.

DRAINAGE AREA.—828 square miles.

RECORDS AVAILABLE.—July, 1900, to September, 1930.

EXTREMES.—Maximum discharge during year, 6,650 second-feet Oct. 2 (gage height, 6.60 feet); minimum, 115 second-feet Aug. 5 (gage height, 0.54 foot). 1900–1930: Maximum stage, 15.0 feet May 22, 1901 (discharge not determined); minimum discharge, 115 second-feet Sept. 9, 1925, Aug. 5, 1930.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	476	512	788	1,400	880	772	936	612	476	249	225	228
2	2,890	488	992	1,260	904	832	904	618	402	270	210	195
3	4,010	1,030	1,220	1,400	1,220	848	1,220	592	402	270	180	228
4	1,690	2,200	1,060	1,350	1,990	788	2,650	586	390	246	186	213
5	1,080	2,100	1,000	1,220	4,160	772	2,200	548	402	213	138	210
6	864	1,490	984	1,170	3,460	758	3,870	566	396	225	186	210
7	716	1,130	944	1,080	2,480	1,490	4,930	580	412	222	228	234
8	646	944	1,080	1,020	1,890	4,930	3,260	599	418	180	252	237
9	573	818	1,220	960	1,540	3,460	2,320	580	358	210	324	207
10	530	751	1,130	904	1,350	2,420	1,840	586	390	228	279	255
11	506	702	1,060	832	1,220	1,990	1,540	625	390	213	336	225
12	458	702	1,020	788	1,080	1,940	1,350	667	367	204	252	228
13	446	788	912	758	1,130	1,740	1,260	825	349	216	234	240
14	424	960	864	758	1,590	1,640	1,170	888	328	249	240	246
15	418	1,790	872	848	1,400	1,440	1,080	840	340	385	320	264
16	412	3,070	1,070	984	1,220	1,300	1,010	751	308	332	316	240
17	380	2,420	1,350	864	1,130	1,170	944	709	300	294	252	385
18	380	3,870	1,350	848	1,080	1,690	928	802	340	297	234	354
19	328	3,870	1,490	758	1,020	4,610	912	1,540	340	234	273	285
20	344	2,420	1,590	716	984	4,770	848	1,790	300	237	258	264
21	402	1,740	1,350	788	936	3,200	802	1,260	284	210	385	270
22	1,590	1,400	1,260	1,050	912	2,320	802	960	285	183	2,540	270
23	1,590	1,220	1,220	1,260	880	1,840	772	810	300	219	1,130	252
24	1,130	1,130	1,060	1,080	896	1,590	730	751	279	210	660	246
25	864	1,010	912	1,020	912	1,490	702	716	349	210	418	234
26	716	968	952	960	880	1,540	681	618	344	210	354	255
27	646	1,010	960	936	864	1,300	667	580	279	213	320	255
28	573	1,080	1,440	944	802	1,170	639	548	276	258	276	231
29	573	1,080	2,100	960	-------	1,080	632	554	276	276	258	204
30	592	960	1,990	984	-------	1,040	625	536	267	300	246	158
31	542	-------	1,640	928	-------	984	-------	500	-------	228	240	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,010	328	863	1.04	1.20
November	3,870	488	1,460	1.76	1.96
December	2,100	788	1,190	1.44	1.66
January	1,400	716	994	1.20	1.38
February	4,160	802	1,390	1.68	1.75
March	4,930	758	1,840	2.22	2.56
April	4,930	625	1,410	1.70	1.90
May	1,790	500	746	.901	1.04
June	476	267	345	.417	.47
July	385	180	242	.292	.34
August	2,540	138	379	.458	.53
September	385	158	244	.295	.33
The year	4,930	138	921	1.11	15.12

SOUTH FORK OF HOLSTON RIVER AT KINGSPORT, TENN.

LOCATION.—Water-stage recorder half a mile downstream from Carolina, Clinchfield & Ohio Railway bridge and 1 mile upstream from Eastman Kodak plant at Kingsport, Claiborne County. Zero of gage 1,188.79 feet above mean sea level.

DRAINAGE AREA.—1,960 square miles.

RECORDS AVAILABLE.—September, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 18,000 second-feet Oct. 3 (gage height, 7.56 feet); minimum, 380 second-feet Aug. 6 (gage height, 0.10 foot). 1925–1930: Maximum discharge, about 43,200 second-feet Feb. 24, 1927 (gage height, 13.9 feet); minimum, 350 second-feet Oct. 7, 12, 1925.

REMARKS.—Records good except those for estimated periods, which are fair. Slight regulation during low water caused by operation of power plants upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,180	1,800	a 2,160	3,300	1,980	2,020	2,400	1,430	1,180	738	615	700
2	5,610	1,980	a 2,910	3,000	2,030	2,050	2,290	1,430	1,100	683	567	649
3	11,100	3,000	a 3,500	3,200	2,530	2,070	2,620	1,460	1,010	692	543	640
4	4,740	4,950	a 3,000	3,200	3,700	1,940	4,530	1,400	924	674	519	649
5	3,000	5,060	a 2,820	2,910	6,760	1,890	4,420	1,320	924	632	535	674
6	2,270	3,900	2,120	2,820	7,000	1,890	6,060	1,320	1,030	632	495	624
7	1,870	3,100	2,160	2,620	5,170	2,490	10,000	1,610	1,130	607	567	599
8	1,650	2,620	2,250	2,530	a 4,400	8,980	7,480	1,560	1,140	658	567	683
9	1,460	2,300	2,420	2,380	a 3,600	7,240	5,170	1,460	996	615	666	766
10	1,350	2,020	2,340	2,200	a 3,100	5,280	4,220	1,460	1,090	599	806	776
11	1,280	1,800	2,200	2,090	a 2,800	4,640	3,600	1,550	1,060	674	728	738
12	1,180	1,800	2,160	1,930	a 2,630	4,740	3,200	1,510	1,010	567	700	666
13	1,130	2,070	1,980	1,910	2,620	4,320	2,910	2,360	924	567	607	719
14	1,130	2,400	1,940	1,840	3,700	3,900	2,720	2,200	924	738	615	a 776
15	1,130	2,910	1,890	2,090	3,500	3,500	2,620	2,250	924	776	795	a 748
16	1,130	5,390	2,210	2,340	3,100	3,100	2,450	1,960	816	816	1,280	a 683
17	1,050	a 6,000	3,100	2,160	2,910	2,910	2,320	1,730	879	738	757	a 1,030
18	1,030	a 9,000	3,000	2,090	2,720	3,500	2,270	1,720	879	728	757	a 1,050
19	996	a 8,000	3,300	1,910	2,530	10,300	2,340	3,000	858	683	1,220	a 858
20	960	a 6,760	3,500	1,720	2,420	12,300	2,160	3,800	826	632	1,060	a 806
21	1,160	a 4,950	3,100	1,940	2,250	8,220	2,000	2,910	837	615	837	a 868
22	8,980	a 3,900	2,720	2,380	2,210	5,830	1,960	2,250	776	591	4,110	a 795
23	7,240	3,100	2,820	3,000	2,180	4,740	1,890	1,870	795	615	4,320	a 674
24	4,320	a 3,100	2,530	2,720	2,290	4,110	1,800	1,770	738	575	2,160	a 700
25	3,200	a 2,820	2,090	2,400	2,360	3,700	1,730	1,720	766	575	1,430	a 719
26	2,620	a 2,720	2,230	2,340	2,230	3,700	1,660	1,510	837	567	1,030	a 795
27	2,300	a 2,820	2,270	2,300	2,200	3,200	1,630	1,350	900	559	924	776
28	2,070	a 3,100	3,300	2,300	2,090	2,910	1,530	1,280	719	666	879	683
29	1,980	a 3,100	4,740	2,270	-------	2,820	1,510	1,280	719	858	826	640
30	1,980	2,530	4,530	2,230	-------	2,620	1,510	1,280	632	738	879	583
31	1,910	-------	3,800	2,090	-------	2,490	-------	1,260	-------	728	710	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,100	960	2,680	1.37	1.58
November	9,000	1,800	3,630	1.85	2.06
December	4,740	1,890	2,740	1.40	1.61
January	3,300	1,720	2,390	1.22	1.41
February	7,000	1,980	3,110	1.59	1.66
March	12,300	1,890	4,300	2.19	2.52
April	10,000	1,510	3,100	1.58	1.76
May	3,800	1,260	1,770	.903	1.04
June	1,180	632	911	.465	.52
July	858	559	662	.338	.39
August	4,320	495	1,050	.536	.62
September	1,050	583	736	.376	.42
The year	12,300	495	2,250	1.15	15.59

a Estimated.

HOLSTON RIVER NEAR ROGERSVILLE, TENN.

LOCATION.—Water-stage recorder at highway bridge 1,600 feet downstream from Austin mill and dam and 3 miles south of Rogersville, Hawkins County. Zero of gage 1,057.04 feet above mean sea level.

DRAINAGE AREA.—3,060 square miles.

RECORDS AVAILABLE.—March, 1902, to September, 1930.

EXTREMES.—Maximum discharge during year, 18,700 second feet Oct. 22 (gage height, 6.82 feet); minimum, 530 second-feet Aug. 7 (gage height —0.20 foot).

1904–1930: Maximum discharge, about 70,900 second-feet Jan. 29, 1918 (gage height, 20.0 feet, old gage); minimum, 438 second-feet Sept. 9, 1925. Maximum stage known, 38.4 feet Mar. 10, 1867.

REMARKS.—Records good. Staff gage used May 26 to June 5.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,270	2,240	3,300	5,640	3,210	3,120	3,500	2,000	1,480	940	890	940
2	2,080	2,160	2,760	5,140	3,210	2,940	3,210	2,000	1,420	981	807	890
3	12,700	3,210	4,010	6,300	3,600	3,030	3,600	2,000	1,380	930	753	852
4	8,140	7,260	4,010	6,300	6,030	2,940	5,900	1,960	1,300	910	726	825
5	4,440	9,690	3,400	5,520	11,300	2,760	7,260	1,850	1,350	930	690	816
6	3,210	6,430	3,300	4,900	13,400	2,940	7,120	1,820	1,350	843	708	834
7	2,580	4,670	3,210	4,560	9,690	5,640	14,900	1,850	1,440	834	634	816
8	2,240	3,900	3,210	4,120	7,260	10,300	13,000	2,080	1,600	825	717	816
9	1,970	3,400	3,500	3,800	5,900	13,000	8,750	1,940	1,430	852	699	940
10	1,790	3,120	3,800	3,500	5,020	9,370	6,560	1,850	1,410	798	870	1,140
11	1,640	2,760	3,500	3,210	4,560	7,550	5,390	1,920	1,420	816	1,120	1,110
12	1,530	2,940	3,210	3,120	4,010	6,980	4,780	2,000	1,420	870	1,020	1,020
13	1,430	3,120	3,030	2,850	4,560	6,430	4,330	2,330	1,300	789	930	920
14	1,380	3,700	2,850	2,850	7,550	5,770	4,010	2,670	1,250	852	825	970
15	1,350	6,160	2,760	2,850	6,560	5,390	3,800	2,760	1,210	1,120	920	1,010
16	1,350	8,750	2,850	3,120	5,390	4,900	3,500	2,670	1,190	1,160	1,230	940
17	1,330	10,700	3,600	3,210	4,670	4,440	3,300	2,330	1,120	1,090	1,310	940
18	1,260	14,100	4,010	2,940	4,330	6,160	3,120	2,160	1,170	1,100	1,080	1,300
19	1,250	15,600	4,330	2,850	3,900	14,100	3,120	3,400	1,230	1,080	1,210	1,190
20	1,210	11,000	5,020	2,500	3,700	17,900	3,120	5,390	1,160	970	1,380	1,070
21	1,460	7,550	4,780	2,760	3,500	13,400	3,030	4,900	1,140	870	1,300	1,040
22	9,690	5,770	4,220	3,500	3,300	9,370	2,670	3,500	1,140	843	2,330	1,060
23	11,700	5,020	4,120	4,440	3,210	7,550	2,670	2,760	1,070	816	7,550	1,160
24	6,430	4,560	3,900	4,440	3,400	6,160	2,500	2,500	1,100	798	3,600	1,070
25	4,440	4,120	3,400	3,800	3,700	5,390	2,330	2,420	1,110	771	2,080	960
26	3,500	3,900	3,120	3,600	3,500	5,390	2,330	2,240	1,140	735	1,600	970
27	2,940	3,800	3,400	3,300	3,400	5,140	2,240	1,920	1,170	717	1,270	1,070
28	2,580	4,010	5,020	3,500	3,210	4,440	2,080	1,780	1,100	735	1,160	981
29	2,420	4,120	8,140	3,300	-------	4,120	2,160	1,740	1,000	900	1,100	920
30	2,330	4,120	8,140	3,400	-------	3,800	2,000	1,670	981	1,060	1,010	900
31	2,330	-------	6,840	3,500	-------	3,600	-------	1,570	-------	920	960	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,700	1,210	3,350	1.09	1.26
November	15,600	2,160	5,730	1.87	2.09
December	8,140	2,760	4,020	1.31	1.51
January	6,300	2,500	3,830	1.25	1.44
February	13,400	3,210	5,180	1.69	1.76
March	17,900	2,760	6,580	2.15	2.48
April	14,900	2,000	4,540	1.48	1.65
May	5,390	1,570	2,390	.781	.90
June	1,600	981	1,250	.408	.46
July	1,160	717	899	.294	.34
August	7,550	634	1,370	.448	.52
September	1,300	816	982	.321	.36
The year	17,900	634	3,330	1.09	14.77

MIDDLE FORK OF HOLSTON RIVER AT CHILHOWIE, VA.

LOCATION.—Chain gage at highway bridge at Chilhowie, Smyth County.
DRAINAGE AREA.—144 square miles.
RECORDS AVAILABLE.—June, 1907, to December, 1909; November, 1920, to September, 1930.
EXTREMES.—Maximum discharge during year, 2,510 second-feet Oct. 2 (gage height, 5.52 feet); minimum, 18 second-feet Sept. 24 (gage height, 0.80 foot). 1907–1909, 1920–1930: Maximum discharge, 7,710 second-feet June 12, 1923 (gage height, 11.4 feet); minimum, 13 second-feet July 28, 1926 (gage height, 0.70 foot).
REMARKS.—Records good. Discharge estimated Dec. 1 because of ice. Operation of small mills upstream causes some diurnal fluctuation.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	79	170	231	142	106	132	95	61	48	41	35
2	2,510	79	175	209	155	112	120	87	61	46	41	42
3	540	185	209	265	227	106	178	84	59	42	33	39
4	254	690	181	254	690	106	468	84	54	37	32	33
5	178	332	158	224	905	100	290	79	52	42	33	37
6	142	213	161	199	515	103	740	82	59	41	35	39
7	117	171	158	188	355	123	850	129	67	41	50	117
8	97	142	209	175	290	445	468	103	61	41	48	50
9	82	126	209	158	224	332	290	90	56	41	41	41
10	90	114	188	148	209	242	235	90	59	39	39	41
11	77	132	178	129	178	220	206	90	52	37	33	26
12	77	117	164	126	161	202	188	120	56	39	35	37
13	77	132	148	120	161	195	175	123	48	41	35	26
14	79	168	148	123	192	192	161	123	52	48	44	39
15	67	690	135	139	188	181	148	120	48	56	44	35
16	67	590	139	129	164	161	135	106	50	50	41	35
17	67	400	155	117	168	155	129	95	50	44	44	109
18	63	1,660	181	112	161	164	129	168	44	44	33	48
19	67	690	261	97	148	795	126	400	48	46	39	44
20	65	400	290	100	142	690	117	254	48	44	35	37
21	65	290	227	112	135	422	114	151	52	37	44	41
22	332	227	199	129	129	310	109	129	41	35	106	46
23	227	206	188	139	126	239	97	106	41	41	65	33
24	145	175	161	123	129	209	100	97	42	37	54	24
25	117	175	155	132	117	192	97	90	48	37	35	37
26	97	168	145	103	117	192	97	79	44	39	33	37
27	87	181	158	129	103	171	95	79	39	50	39	35
28	82	195	269	132	97	151	92	74	44	44	41	33
29	72	192	490	192	------	139	90	67	46	65	44	32
30	82	155	355	188	------	142	90	67	33	48	37	30
31	82	------	269	164	------	135	------	67	------	41	37	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,510	63	200	1.39	1.60
November	1,660	79	302	2.10	2.34
December	490	135	201	1.40	1.61
January	265	97	154	1.07	1.23
February	905	97	226	1.57	1.64
March	795	100	227	1.58	1.82
April	850	90	209	1.45	1.62
May	400	67	114	.792	.91
June	67	33	50.5	.351	.39
July	65	35	43.3	.301	.35
August	106	32	42.3	.294	.34
September	117	24	41.9	.291	.32
The year	2,510	24	150	1.04	14.17

WATAUGA RIVER AT STUMP KNOB, TENN.

LOCATION.—Staff gage 400 feet below Lineback's store (site of old Stump Knob post office), Johnson County, 2¼ miles above mouth of Elk Creek, and 4½ miles above Butler. Zero of gage 1,868.94 feet above mean sea level.

DRAINAGE AREA.—177 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, about 4,800 second-feet Oct. 2 (gage height, 5.5 feet); minimum, 28 second-feet Aug. 4, 5, 13 (gage height, 0.70 foot).

1927–1930: Maximum discharge, about 10,700 second-feet Nov. 17, 1927 (gage height, 9.2 feet); minimum, that of Aug. 4, 5, 13, 1930.

REMARKS.—Records good below and fair above 2,500 second-feet.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	910	550	250	306	250	161	183	132	94	63	48	57
2	3,680	480	290	290	198	161	179	132	90	67	42	56
3	1,000	515	241	373	250	118	183	138	84	50	38	48
4	588	515	202	306	403	142	195	115	82	50	28	45
5	415	415	179	280	515	161	198	115	80	47	28	52
6	333	367	191	270	415	152	550	237	82	43	32	67
7	275	328	206	255	361	740	625	168	87	45	38	52
8	219	316	228	260	306	865	448	145	92	45	54	138
9	206	311	210	246	260	588	344	135	102	43	43	92
10	198	241	195	228	255	480	295	127	110	38	42	72
11	179	237	195	210	228	448	290	132	90	43	48	94
12	165	241	187	206	210	409	237	172	82	40	45	104
13	158	285	179	195	215	373	228	202	78	37	31	102
14	148	311	187	179	250	350	215	228	90	43	34	82
15	142	385	219	202	215	311	198	210	90	50	344	90
16	135	361	300	224	172	285	191	176	80	63	127	129
17	132	385	255	206	187	275	179	168	76	57	61	127
18	129	1,360	285	183	176	328	210	158	84	50	118	84
19	129	865	361	124	179	910	198	275	78	47	135	87
20	124	550	322	168	172	780	179	210	65	43	100	165
21	328	480	306	241	168	588	158	165	76	42	90	195
22	2,840	391	285	237	161	448	161	152	76	34	663	152
23	1,000	350	260	176	168	373	155	132	82	36	663	118
24	740	316	224	161	210	333	145	161	67	36	176	107
25	415	280	228	206	179	300	138	145	74	34	113	127
26	350	265	250	237	172	290	138	138	58	40	328	132
27	300	255	260	206	168	246	132	124	80	54	397	102
28	260	280	355	215	161	246	129	113	72	124	285	87
29	280	285	415	210	-------	237	138	107	57	179	107	78
30	300	198	361	187	-------	210	142	113	57	78	76	72
31	290	-------	328	285	-------	195	-------	97	-------	57	61	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,680	124	528	2.98	3.44
November	1,360	198	404	2.28	2.54
December	415	179	257	1.45	1.67
January	306	124	228	1.29	1.49
February	515	161	236	1.33	1.38
March	910	118	371	2.10	2.42
April	625	129	225	1.27	1.42
May	275	97	156	.881	1.02
June	110	57	80.5	.455	.51
July	179	34	54.1	.306	.35
August	663	28	142	.802	.92
September	195	45	97.1	.549	.61
The year	3,680	28	232	1.31	17.77

WATAUGA RIVER AT BUTLER, TENN.

LOCATION.—Staff gage at county highway bridge at Butler, Johnson County, just below mouth of Roane Creek. Zero of gage 1,812.10 feet above mean sea level.

DRAINAGE AREA.—427 square miles.

RECORDS AVAILABLE.—August, 1900, to December, 1901; November, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, about 6,750 second-feet Oct. 2 (gage height, 5.7 feet); minimum discharge, 136 second-feet Sept. 3–5; minimum gage height, 1.20 feet Aug. 5.

1900–01, 1920–1930: Maximum stage, 16.27 feet, old gage datum, May 21, 1901 (discharge not determined); minimum discharge, 85 second-feet Sept. 7, 1925.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	785	830	468	740	405	468	538	364	a 270	207	176	164
2	5,550	785	655	698	500	468	538	364	a 261	207	172	148
3	1,800	1,130	615	878	698	375	615	358	256	198	160	136
4	1,080	1,080	435	740	975	405	830	342	261	198	148	136
5	785	925	500	655	1,320	468	698	342	252	198	140	136
6	655	785	538	655	1,190	468	1,250	500	290	194	148	160
7	575	698	500	655	1,020	1,190	1,650	435	353	189	160	152
8	500	655	538	615	830	1,880	1,190	375	280	184	164	320
9	468	615	500	575	740	1,320	925	375	320	172	152	212
10	435	538	468	538	698	1,130	785	405	310	172	172	180
11	405	538	468	538	615	1,130	698	370	266	164	189	176
12	375	538	468	500	615	1,080	655	435	256	164	164	207
13	364	655	468	500	575	975	615	405	252	164	148	256
14	353	655	468	500	698	925	575	575	266	176	164	198
15	342	878	500	655	615	830	538	500	266	202	655	172
16	331	975	698	575	575	785	500	468	252	212	280	405
17	320	878	698	500	575	740	468	405	252	198	202	326
18	310	2,450	740	468	538	830	538	435	256	189	375	238
19	310	1,650	925	336	500	2,630	538	740	252	180	435	207
20	300	1,190	785	405	500	2,280	468	655	243	168	234	320
21	370	925	615	500	468	1,510	468	500	238	160	243	435
22	5,350	830	698	575	468	1,190	435	435	230	156	1,650	300
23	1,720	785	698	615	468	975	435	375	225	156	698	256
24	1,130	740	538	468	615	878	405	468	225	156	405	256
25	878	655	435	468	500	830	405	468	225	148	280	270
26	740	698	538	405	500	830	405	405	238	148	248	280
27	615	740	615	538	500	698	405	358	225	152	243	230
28	575	698	785	575	468	655	375	342	220	353	230	212
29	615	615	1,080	575	------	615	375	a 320	212	295	230	198
30	615	468	925	538	------	615	375	a 300	207	248	220	184
31	575	------	830	435	------	575	------	a 280	------	194	194	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,550	300	943	2.21	2.55
November	2,450	468	854	2.00	2.23
December	1,080	435	619	1.45	1.67
January	878	336	562	1.32	1.52
February	1,320	405	649	1.52	1.58
March	2,630	375	960	2.25	2.59
April	1,650	375	623	1.46	1.63
May	740	280	423	.991	1.14
June	353	207	255	.597	.67
July	353	148	190	.445	.51
August	1,650	140	293	.686	.79
September	435	136	229	.536	.60
The year	5,550	136	550	1.29	17.48

a Estimated.

WATAUGA RIVER AT ELIZABETHTON, TENN.

LOCATION.—Water-stage recorder at Virginia & Southwestern Railway bridge at Elizabethton, Carter County, half a mile below mouth of Doe River. Zero of gage 1,486.03 feet above mean sea level.

DRAINAGE AREA.—703 square miles.

RECORDS AVAILABLE.—February, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, 9,520 second-feet Oct. 22 (gage height, 9.16 feet); minimum, 84 second-feet Aug. 3 (gage height, 1.67 feet).

1926–1930: Maximum discharge, about 13,400 second-feet Feb. 23, 1927 (gage height, 11.1 feet); minimum, that of Aug. 3, 1930.

Maximum stage known, 22.0 feet Feb. 27 or 28, 1902.

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

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	954	940	761	1,320	940	856	954	696	520	260	250	324
2	5,920	1,160	1,240	1,280	919	835	975	683	508	320	242	260
3	2,830	1,660	1,160	1,400	1,200	856	1,120	658	462	276	225	260
4	1,660	1,940	954	1,320	1,620	800	1,490	580	446	272	260	300
5	1,240	1,660	940	1,200	2,240	821	1,320	634	435	272	175	236
6	1,050	1,360	968	1,200	2,040	814	1,850	702	508	225	256	218
7	919	1,240	975	1,120	1,710	1,320	2,900	856	646	292	197	312
8	849	1,080	905	1,120	1,490	3,030	2,190	683	420	280	288	420
9	735	1,050	1,010	1,010	1,280	2,350	1,710	683	538	253	284	468
10	702	856	870	1,010	1,240	2,040	1,450	683	520	276	324	312
11	658	926	856	961	1,160	1,940	1,320	702	479	232	332	312
12	568	940	842	800	1,010	1,990	1,200	716	410	214	232	324
13	580	1,080	835	940	1,050	1,760	1,120	800	390	280	242	400
14	610	1,080	800	735	1,200	1,580	1,120	982	395	340	260	328
15	610	1,320	821	1,050	1,120	1,450	1,010	1,050	284	280	328	332
16	490	1,760	1,280	1,080	1,010	1,320	975	884	420	312	410	410
17	508	1,580	1,400	975	1,050	1,280	940	814	385	308	320	496
18	508	3,030	1,320	954	982	1,580	905	800	385	292	670	490
19	462	2,580	1,530	768	961	4,840	975	1,400	340	253	821	385
20	435	1,940	1,450	870	912	4,170	821	e 1,160	312	260	415	462
21	735	1,580	1,240	975	884	2,700	821	e 960	300	280	550	580
22	6,110	1,360	1,200	1,120	898	2,140	828	e 800	362	256	2,460	610
23	2,830	1,280	1,200	1,200	800	1,760	768	e 700	362	218	1,710	410
24	1,850	1,240	1,080	1,050	1,080	1,530	735	e 790	312	239	884	354
25	1,400	1,160	870	1,080	975	1,490	735	e 740	362	268	634	462
26	1,200	1,160	1,080	968	940	1,450	702	e 670	405	208	435	435
27	1,050	1,280	1,050	1,120	940	1,320	670	e 620	312	250	415	376
28	940	1,280	1,360	1,010	898	1,160	702	e 590	268	640	385	332
29	961	1,280	1,900	1,010	-------	1,120	683	598	242	362	340	242
30	982	982	1,660	962	-------	975	696	610	380	410	308	320
31	919	-------	1,450	891	-------	1,080	-------	568	-------	308	276	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,110	435	1,330	1.89	2.18
November	3,030	856	1,390	1.98	2.21
December	1,900	761	1,130	1.61	1.86
January	1,400	735	1,050	1.47	1.72
February	2,240	800	1,160	1.65	1.72
March	4,840	800	1,690	2.40	2.77
April	2,900	670	1,120	1.59	1.77
May	1,400	568	768	1.09	1.26
June	646	242	404	.575	.64
July	640	208	288	.410	.47
August	2,460	175	482	.686	.79
September	610	218	372	.529	.59
The year	6,110	175	935	1.33	17.98

e Estimated.

DOE RIVER AT VALLEY FORGE, TENN.

LOCATION.—Chain gage at highway bridge 50 feet downstream from East Tennessee & Western North Carolina Railroad bridge and one-fourth mile north of Valley Forge, Carter County.

DRAINAGE AREA.—132 square miles.

RECORDS AVAILABLE.—December, 1911, to October, 1916; November, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,310 second-feet Oct. 2 (gage height, 4.36 feet); minimum, 43 second-feet Aug. 4, 5 (gage height, 0.83 foot).

1911–1916, 1920–1930: Maximum discharge, determined by slope-area method, about 5,040 second-feet June 13, 1924 (gage height, from high-water mark, 6.7 feet); minimum, 17 second-feet Aug. 31, Sept. 7, 1925 (gage height, 0.60 foot).

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

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	255	187	226	244	222	193	190	126	103	68	51	57
2	1,690	179	259	222	203	193	203	133	103	80	49	55
3	635	370	203	300	300	170	237	124	101	64	48	55
4	345	370	190	259	345	200	280	117	88	59	44	53
5	233	300	222	255	450	212	237	115	92	56	44	53
6	212	255	182	229	370	168	450	150	140	51	49	56
7	182	222	182	219	300	300	570	147	144	69	52	56
8	165	222	190	206	255	510	395	126	113	76	88	59
9	150	196	173	206	233	480	322	126	122	74	74	57
10	152	179	157	190	252	450	259	124	117	69	76	56
11	130	173	154	176	200	540	240	150	95	86	70	63
12	128	196	157	173	193	480	226	147	86	75	53	62
13	126	190	150	193	203	395	209	140	83	75	48	61
14	122	200	165	216	248	345	203	255	85	88	53	57
15	119	300	176	280	229	300	196	209	81	109	184	53
16	113	280	395	219	216	280	196	170	76	86	92	86
17	111	280	345	203	219	280	165	154	80	69	72	103
18	107	480	322	190	193	345	184	154	88	66	422	66
19	105	395	370	126	187	1,160	176	370	74	61	179	76
20	103	322	300	170	187	888	160	226	70	59	95	105
21	140	280	259	233	179	602	152	176	80	58	162	105
22	1,330	237	244	259	165	450	142	147	92	55	850	78
23	635	240	216	322	190	345	137	140	76	57	540	59
24	395	222	190	300	280	300	147	157	69	55	280	56
25	280	216	196	280	216	322	144	140	115	51	126	74
26	229	248	212	173	226	300	137	115	86	49	101	80
27	200	255	212	212	216	259	135	126	90	81	85	72
28	190	237	345	219	203	244	122	126	69	111	75	61
29	209	229	395	206	-------	229	128	130	68	69	74	55
30	216	216	322	212	-------	212	126	154	62	56	66	53
31	196	-------	233	212	-------	203	-------	107	-------	53	59	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,690	103	297	2.25	2.59
November	480	173	256	1.94	2.16
December	395	150	237	1.80	2.08
January	322	126	223	1.69	1.95
February	450	165	239	1.81	1.88
March	1,160	168	366	2.77	3.19
April	570	122	216	1.64	1.83
May	370	107	154	1.17	1.35
June	144	62	91.6	.694	.77
July	111	49	68.9	.522	.60
August	850	44	137	1.04	1.20
September	105	53	66.1	.501	.56
The year	1,690	44	196	1.48	20.16

NORTH FORK OF HOLSTON RIVER NEAR SALTVILLE, VA.

LOCATION.—Chain gage at Cedar Branch Bridge, 1½ miles northeast of Saltville, Smyth County, and 3 miles upstream from Sturgeon Creek.

DRAINAGE AREA.—228 square miles.

RECORDS AVAILABLE.—November, 1920, to September, 1930. June, 1907, to November, 1908, 1½ miles downstream.

EXTREMES.—Maximum discharge during year, 2,960 second-feet Nov. 18 (gage height, 7.44 feet); minimum, 19 second-feet Sept. 30 (gage height, 1.28 feet).

1907–8, 1920–1930: Maximum discharge, 8,220 second-feet Feb. 3, 1923 (gage height, 13.97 feet); minimum, that of Sept. 30, 1930.

REMARKS.—Records good. Possibly some regulation from mills above station during extremely low water.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	92	233	392	233	151	151	91	73	28	24	23
2	740	92	290	392	274	142	151	102	64	20	21	24
3	838	428	260	566	323	151	220	104	57	28	24	22
4	608	2,100	246	526	945	151	486	99	60	27	25	25
5	233	740	220	428	1,960	132	410	106	57	27	22	23
6	172	446	184	374	1,120	132	838	91	43	24	26	24
7	142	340	208	323	694	233	1,610	92	65	33	32	27
8	112	260	246	290	526	1,420	838	85	67	34	29	39
9	97	220	306	260	410	740	566	78	52	25	34	32
10	82	172	274	220	357	526	410	67	52	25	31	30
11	72	162	260	208	290	428	340	77	52	25	39	28
12	67	162	246	172	260	410	290	99	56	22	31	26
13	65	172	195	162	274	486	260	100	44	25	27	27
14	68	220	195	162	340	410	233	104	43	36	34	25
15	59	392	184	172	306	374	208	112	47	57	43	25
16	61	788	195	151	260	340	195	106	37	65	35	27
17	64	608	220	142	260	290	184	109	45	42	34	28
18	56	2,720	233	132	233	357	172	162	46	35	27	26
19	59	1,180	357	[a] 120	233	694	162	694	42	30	32	27
20	41	694	374	151	220	694	151	526	42	28	32	31
21	66	466	340	151	220	526	142	306	38	28	31	27
22	274	392	323	151	195	428	162	208	37	26	65	25
23	392	323	290	162	184	357	132	172	39	30	67	25
24	260	290	220	[a] 150	184	306	114	142	39	32	61	21
25	172	274	184	184	195	290	104	123	32	27	42	23
26	132	233	208	220	172	290	100	112	29	30	33	22
27	123	274	220	208	162	246	97	97	32	37	30	26
28	112	374	357	208	172	195	100	96	33	45	27	25
29	104	323	694	323	-------	184	104	91	29	70	24	22
30	106	208	566	274	-------	184	100	84	28	52	22	20
31	106	-------	466	246	-------	172	-------	79	-------	32	30	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	838	41	178	0.781	0.90
November	2,720	92	505	2.21	2.47
December	694	184	284	1.25	1.44
January	566	120	246	1.08	1.24
February	1,960	162	393	1.72	1.79
March	1,420	132	369	1.62	1.87
April	1,610	97	301	1.32	1.47
May	694	67	146	.640	.74
June	73	28	46.3	.203	.23
July	70	20	33.7	.148	.17
August	67	21	33.4	.146	.17
September	39	20	25.8	.113	.13
The year	2,720	20	212	.930	12.62

[a] Estimated.

NORTH FORK OF HOLSTON RIVER AT MENDOTA, VA.

LOCATION.—Chain gage at highway bridge one-fourth mile east of Mendota, Washington County.

DRAINAGE AREA.—500 square miles.

RECORDS AVAILABLE.—October, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 4,770 second-feet Feb. 5 (gage height, 7.23 feet); minimum, 38 second-feet July 25, Aug. 30 (gage height, 1.70 feet).

1920–1930: Maximum discharge, 19,600 second-feet Feb. 3, 1923 (gage height, 14.4 feet); minimum, 38 second-feet Oct. 5, 1927, July 25 Aug. 30, 1930.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	222	a 500	860	530	357	362	224	149	70	72	56
2	357	215	a 550	790	561	362	362	210	137	66	56	51
3	1,870	561	a 660	1,130	592	352	637	232	120	64	56	49
4	825	3,940	a 580	1,220	1,540	320	1,450	213	117	62	46	49
5	500	1,780	a 530	1,000	4,770	320	1,130	195	109	64	43	44
6	357	930	a 450	860	2,530	301	2,430	188	128	64	43	43
7	276	656	500	722	1,620	852	3,180	202	143	93	43	52
8	246	500	592	656	1,210	2,050	1,960	202	131	70	64	48
9	215	441	689	592	890	1,780	1,290	195	128	49	70	120
10	200	384	656	530	740	1,210	970	181	114	56	74	74
11	179	357	624	470	637	1,010	778	188	a 117	51	68	62
12	173	332	561	412	540	930	670	181	120	52	64	56
13	166	357	500	384	572	815	572	210	106	54	60	62
14	160	441	470	384	1,130	815	509	248	88	175	60	58
15	153	1,140	441	441	930	890	478	248	101	106	86	62
16	141	1,780	470	412	815	670	448	232	96	86	96	58
17	141	1,300	412	384	670	637	418	210	109	134	76	56
18	141	3,070	530	384	637	637	390	331	88	158	79	64
19	141	2,740	689	307	572	815	448	890	88	91	74	66
20	130	1,460	860	271	509	2,050	352	1,210	98	79	62	62
21	153	1,000	722	357	509	1,450	326	670	93	60	134	66
22	592	756	656	470	478	1,050	331	478	91	56	778	54
23	825	656	a 580	592	448	890	315	362	81	48	310	51
24	561	592	a 500	561	478	705	292	310	74	56	162	51
25	412	530	a 430	470	448	670	282	232	88	46	131	46
26	307	530	a 470	530	448	670	256	217	93	64	101	49
27	271	530	a 530	500	418	572	248	195	84	62	76	48
28	250	656	895	470	390	478	240	178	74	56	70	52
29	222	689	1,620	561	-------	448	232	185	81	76	58	48
30	230	470	1,380	656	-------	448	240	181	88	81	49	49
31	211	-------	1,070	592	-------	390	-------	162	-------	86	62	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,870	114	339	0.678	0.78
November	3,940	215	967	1.93	2.15
December	1,620	412	649	1.30	1.50
January	1,220	271	580	1.16	1.34
February	4,770	390	915	1 83	1.91
March	2,050	301	805	1.61	1.86
April	3,180	232	720	1.44	1.61
May	1,210	162	295	.590	.68
June	149	74	104	.208	.23
July	175	46	75.3	.151	.17
August	778	43	104	.208	.24
September	120	43	56.9	.114	.13
The year	4,770	43	464	.928	12.60

a Estimated.

LITTLE RIVER AT WALLAND, TENN.

LOCATION.—Staff gage half a mile above Walland, Blount County, and three-fourths mile above dam of England, Walton & Co.'s tannery. Zero of gage 912.00 feet above mean sea level.

DRAINAGE AREA.—174 square miles (revised).

RECORDS AVAILABLE.—July, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 3,550 second-feet Nov. 18 (gage height 5.5 feet); minimum, 32 second-feet Sept. 4, 5 (gage height, 0.74 foot).

1925–1930: Maximum discharge, about 10,600 second-feet Mar. 23, 1929 (gage height, 11.0 feet); minimum, 15 second-feet Aug. 31, 1925 (gage height, 0.55 foot).

REMARKS.—Records fair.

Daily discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	368	157	465	415	322	e 380	415	185	220	123	58	40
2	1,460	440	465	440	345	e 450	465	199	213	108	58	39
3	1,220	565	540	465	368	e 420	875	213	192	88	54	37
4	700	540	540	440	540	e 380	1,140	185	185	86	58	36
5	565	515	515	415	815	368	815	182	178	84	58	37
6	465	490	490	390	700	618	815	178	206	78	47	48
7	368	465	490	368	590	1,910	755	178	220	78	50	48
8	322	440	465	345	490	2,310	618	182	178	78	60	42
9	280	390	440	390	465	940	565	280	171	72	50	40
10	240	345	440	390	440	e 800	490	260	164	70	50	39
11	240	368	415	368	415	e 900	440	465	150	78	50	160
12	220	700	415	345	390	e 800	415	345	150	78	58	80
13	206	1,220	390	390	e 800	e 750	390	300	144	74	47	68
14	192	2,310	368	440	e 1,400	e 680	368	815	144	182	48	66
15	178	2,110	368	465	e 800	618	345	540	138	171	48	68
16	171	1,380	368	440	e 640	e 580	322	415	138	141	48	64
17	164	2,620	368	415	515	e 550	300	390	171	108	47	58
18	157	3,430	368	390	490	e 800	345	390	240	111	58	54
19	150	2,730	368	390	465	e 2,000	300	2,510	157	102	74	66
20	150	1,820	345	368	440	e 1,500	260	1,140	138	90	82	114
21	490	1,380	390	322	415	e 900	260	700	178	88	82	108
22	440	1,000	390	300	415	e 750	240	565	178	80	150	80
23	390	815	368	368	e 450	e 650	240	440	141	82	68	72
24	368	700	345	390	e 600	e 600	240	440	126	82	58	62
25	345	672	390	390	e 550	e 700	220	345	114	82	60	108
26	322	700	440	322	e 500	e 650	206	300	105	78	48	260
27	322	645	440	300	e 450	e 600	199	280	108	74	45	185
28	440	590	465	300	e 420	e 560	196	260	96	74	45	114
29	390	540	440	280	-------	e 530	199	260	96	70	47	88
30	300	490	415	280	-------	e 500	199	280	93	64	45	80
31	206	-------	390	300	-------	465	-------	240	-------	60	45	-------

e Estimated.

Monthly discharge, in second-feet, of Little River at Walland, Tenn., 1925–1930

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1925					
August	71	20	32.4	0.185	0.21
September	38	20	26.7	.153	.17
1925–26					
October	2,980	23	323	1.86	2.14
November	1,130	115	235	1.35	1.51
December	450	188	251	1.44	1.66
January	5,110	196	726	4.17	4.81
February	610	332	383	2.20	2.29
March	450	332	364	2.09	2.41
April	3,110	263	614	3.53	3.94
May	2,860	190	385	2.21	2.55
June	730	139	307	1.76	1.96
July	510	136	249	1.43	1.65
August	880	112	247	1.42	1.64
September	305	90	159	.914	1.02
The year	5,110	23	354	2.03	27.58
1926–27					
October	195	81	117	0.672	0.77
November	1,630	81	418	2.40	2.68
December	4,400	81	1,110	6.38	7.36
January	2,050	203	511	2.94	3.39
February	4,960	382	1,090	6.26	6.52
March	4,400	167	849	4.88	5.63
April	1,030	259	459	2.64	2.94
May	960	153	357	2.05	2.36
June	1,100	275	563	3.24	3.62
July	500	134	265	1.52	1.75
August	650	164	272	1.56	1.80
September	243	63	148	.851	.95
The year	4,960	63	510	2.93	39.77

Monthly discharge, in second-feet, of Little River at Walland, Tenn., 1925–1930—Con.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1927–28					
October	153	46	79.5	0.457	0.53
November	400	46	161	.925	1.03
December	2,460	202	566	3.25	3.75
January	1,350	202	488	2.80	3.23
February	400	195	285	1.64	1.77
March	860	181	383	2.20	2.54
April	828	310	574	3.30	3.68
May	2,790	270	672	3.86	4.45
June	1,350	270	592	3.40	3.79
July	670	192	286	1.64	1.89
August	2,460	195	613	3.52	4.06
September	3,570	223	584	3.36	3.75
The year	3,570	46	441	2.53	34.47
1928–29					
October	300	164	221	1.27	1.46
November	515	141	218	1.25	1.40
December	216	154	189	1.09	1.26
January	1,550	280	603	3.47	4.00
February	3,430	260	570	3.28	3.42
March	4,750	415	1,360	7.82	9.02
April	3,070	240	618	3.55	3.96
May	4,000	415	1,210	6.95	8.01
June	645	280	434	2.49	2.78
July	700	260	397	2.28	2.63
August	700	90	282	1.62	1.87
September	1,730	82	360	2.07	2.31
The year	4,750	82	540	3.10	42.12
1929–30					
October	1,460	150	382	2.20	2.54
November	3,430	157	1,020	5.86	6.54
December	540	345	422	2.43	2.80
January	465	280	375	2.16	2.49
February	1,400	322	544	3.13	3.26
March	2,310	368	795	4.57	5.27
April	1,140	196	421	2.42	2.70
May	2,510	178	434	2.49	2.87
June	240	93	158	.908	1.01
July	182	60	91.4	.525	.61
August	150	45	57.9	.333	.38
September	260	36	78.7	.452	.50
The year	3,430	36	397	2.28	30.97

NOTE.—Discharge in second-feet per square mile and run-off in inches from August, 1925, to September, 1929, supersede the figures published in previous water-supply papers, owing to revision of the drainage area.

LITTLE TENNESSEE RIVER AT IOTLA, N. C.

LOCATION.—Water-stage recorder 500 feet upstream from Iotla Creek and 1,000 feet upstream from State highway crossing at Iotla, Macon County.
DRAINAGE AREA.—326 square miles.
RECORDS AVAILABLE.—June, 1929, to September, 1930.
EXTREMES.—Maximum discharge during year, 4,550 second-feet Nov. 4 (gage height, 6.00 feet); minimum, about 153 second-feet Aug. 31 (gage height, 1.27 feet).

1929–30: Maximum discharge (estimated), 10,100 second-feet Sept. 26, 1929 (gage height, 8.52 feet); minimum, about 148 second-feet Sept. 8, 1929 (gage height, 1.24 feet).

REMARKS.—Records good except those below 200 second-feet, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,030	852	932	843	773	578	692	511	a 560	401	245	190
2	2,110	1,250	1,310	835	766	598	714	550	a 600	392	270	178
3	1,460	2,750	1,220	883	854	601	801	528	a 600	322	241	181
4	1,230	3,130	1,000	835	1,760	595	690	582	522	331	270	178
5	1,100	1,730	980	781	1,880	615	727	494	602	355	247	184
6	1,000	1,370	968	734	1,330	691	923	564	773	319	241	190
7	944	1,220	946	758	1,180	2,330	883	655	835	317	250	187
8	887	1,270	1,120	766	1,080	1,950	688	863	603	319	283	234
9	804	1,170	891	758	946	1,220	699	804	598	329	253	241
10	714	1,060	915	736	932	1,110	684	719	533	277	222	392
11	716	1,000	915	714	891	1,070	670	1,530	544	348	259	661
12	685	1,600	859	684	859	1,020	674	1,630	500	290	225	394
13	635	2,000	851	659	851	908	633	1,400	505	555	215	242
14	656	2,140	835	734	915	818	581	2,500	550	472	210	257
15	595	2,730	796	1,090	824	820	671	1,770	532	609	213	315
16	567	2,610	784	962	758	796	646	1,300	554	374	203	207
17	568	2,120	835	770	773	750	505	1,180	517	386	194	401
18	549	2,010	985	812	758	1,050	811	1,180	456	562	261	272
19	568	1,680	1,250	743	743	1,370	826	1,710	479	334	219	579
20	569	1,550	972	736	687	1,040	665	1,360	428	382	215	534
21	636	1,360	907	787	691	972	588	1,070	454	253	234	318
22	858	1,310	891	966	704	952	632	968	439	310	333	346
23	606	1,360	949	966	676	920	596	932	464	302	264	297
24	575	1,310	867	761	751	746	597	996	379	383	226	293
25	522	1,130	820	773	691	861	521	886	526	256	230	261
26	524	1,370	812	743	721	875	599	780	456	268	212	496
27	505	1,360	789	743	612	768	499	729	419	311	208	319
28	579	1,160	993	789	684	766	540	739	339	222	208	277
29	525	1,160	1,080	820	-------	752	670	686	319	253	194	266
30	570	983	958	820	-------	677	464	684	402	298	190	249
31	582	-------	891	796	-------	674	-------	a 700	-------	430	160	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,110	505	802	2.46	2.84
November	3,130	852	1,590	4.88	5.44
December	1,310	784	946	2.90	3.34
January	1,090	659	800	2.45	2.82
February	1,880	612	896	2.75	2.86
March	2,330	578	932	2.86	3.30
April	923	464	663	2.03	2.26
May	2,500	494	1,000	3.07	3.54
June	835	319	516	1.58	1.76
July	609	222	354	1.09	1.26
August	333	160	232	.712	.82
September	661	178	305	.936	1.04
The year	3,130	160	752	2.31	31.28

a Estimated.

LITTLE TENNESSEE RIVER AT JUDSON, N. C.

LOCATION.—Staff gage one-fourth mile downstream from highway bridge at Judson, Swain County, and half a mile downstream from mouth of Yalaka Creek.

DRAINAGE AREA.—668 square miles.

RECORDS AVAILABLE.—April, 1912, to September, 1930. June, 1896, to September, 1913, at Southern Railway bridge 1 mile downstream.

EXTREMES.—Maximum discharge during year, 6,550 second-feet Nov. 4 (gage height, 22.00 feet); minimum, 361 second-feet Sept. 1, 3 (gage height, 17.04 feet).

1896–1930: Maximum discharge, 40,800 second-feet Feb. 28, 1902; minimum, 165 second-feet Oct. 10, 1925 (gage height, 16.70 feet).

REMARKS.—Records good. Slight diurnal fluctuation during low water, owing to operation of municipal plants at Franklin and Bryson.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,340	1,180	1,860	1,640	1,640	1,430	1,430	1,140	1,140	890	670	361
2	3,480	1,970	2,440	1,640	1,640	1,330	1,640	1,140	1,230	815	530	394
3	3,080	5,460	2,440	1,970	1,750	1,330	1,970	1,140	1,230	778	498	361
4	2,320	5,630	2,080	1,750	3,210	1,230	2,440	1,180	1,140	970	498	670
5	2,080	3,340	1,970	1,640	3,900	1,230	1,640	1,140	1,230	778	465	498
6	1,860	2,690	1,970	1,640	2,820	1,230	2,320	1,230	1,750	705	530	465
7	1,860	2,320	1,970	1,530	2,560	5,460	1,970	1,330	1,860	740	670	400
8	1,640	2,690	2,080	1,530	2,200	4,190	1,750	1,640	1,530	600	670	432
9	1,530	2,200	2,080	1,530	2,080	2,820	1,640	1,750	1,230	600	670	600
10	1,430	2,080	1,750	1,430	1,970	2,560	1,640	1,640	1,140	635	740	970
11	1,430	1,970	1,750	1,430	1,860	2,560	1,530	2,320	1,100	600	498	970
12	1,330	2,690	1,750	1,430	1,750	2,320	1,530	2,690	1,100	600	498	852
13	1,230	4,340	1,640	1,430	1,970	2,080	1,430	2,560	1,100	1,230	498	635
14	1,330	4,640	1,640	1,330	1,970	1,860	1,430	4,800	1,050	1,140	439	530
15	1,230	5,990	1,530	2,320	1,860	1,860	1,430	3,900	1,100	1,050	465	600
16	970	5,290	1,640	2,080	1,640	1,750	1,330	2,820	1,050	1,230	432	465
17	970	4,490	1,530	1,750	1,640	1,860	1,430	2,560	1,230	778	413	530
18	1,140	4,340	1,970	1,750	1,640	1,860	1,750	1,750	1,100	1,330	465	600
19	1,140	3,620	2,320	1,530	1,530	3,900	1,750	4,190	890	970	465	1,530
20	1,050	3,210	1,970	1,530	1,530	2,950	1,430	3,080	970	670	452	1,430
21	1,230	2,950	1,640	1,750	1,430	2,440	1,430	2,320	930	705	635	600
22	1,860	2,820	1,750	2,320	1,430	2,320	1,330	2,320	930	635	705	705
23	1,330	2,820	1,860	2,080	1,530	2,320	1,430	2,200	890	890	565	565
24	1,140	2,560	1,640	1,860	1,640	1,970	1,330	2,200	890	930	498	530
25	1,050	2,320	1,530	1,750	1,530	2,080	1,140	1,860	890	740	452	565
26	1,050	2,690	1,530	1,640	1,640	2,080	1,230	1,750	1,140	565	465	970
27	970	2,690	1,530	1,640	1,430	1,860	1,230	1,640	740	600	426	670
28	1,050	2,440	1,970	1,640	1,430	1,750	1,140	1,430	930	705	432	600
29	1,230	2,320	2,080	1,750	-------	1,750	1,230	1,430	740	530	426	530
30	1,140	1,970	1,970	1,750	-------	1,640	1,180	1,330	740	565	400	498
31	1,180	-------	1,750	1,640	-------	1,530	-------	1,430	-------	635	387	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,480	970	1,540	2.31	2.66
November	5,990	1,180	3,190	4.78	5.33
December	2,440	1,530	1,860	2.79	3.22
January	2,320	1,330	1,700	2.54	2.93
February	3,900	1,430	1,900	2.84	2.96
March	5,460	1,230	2,180	3.26	3.76
April	2,440	1,140	1,540	2.31	2.58
May	4,800	1,140	2,060	3.08	3.55
June	1,860	740	1,100	1.65	1.84
July	1,330	530	794	1.19	1.37
August	740	387	515	.771	.89
September	1,530	361	651	.974	1.09
The year	5,990	361	1,580	2.37	32.18

LITTLE TENNESSEE RIVER AT CALDERWOOD, TENN.

LOCATION.—Water-stage recorder at pump house of Knoxville Power Co., at Calderwood, Blount County, 2½ miles downstream from Calderwood Dam. Zero of gage 861.78 feet above mean sea level.

DRAINAGE AREA.—1,870 square miles.

RECORDS AVAILABLE.—January, 1912, to December, 1918; January, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 18,000 second-feet Nov. 17 (gage height, 4.8 feet); minimum (estimated), 50 second-feet Apr. 16–18 (gage height, −0.12 foot, caused by closing of gates in dam).

1912–1918, 1921–1930: Maximum mean daily discharge, about 70,000 second-feet Mar. 4, 1917; minimum, that of Apr. 16–18, 1930.

REMARKS.—Records good. Flow very largely regulated by three large power developments upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,490	3,260	5,330	4,670	4,240	4,600	5,010	2,960	3,480	2,560	2,380	1,910
2	7,890	4,100	5,870	4,720	4,420	4,040	5,320	3,090	3,780	2,080	2,600	2,000
3	6,630	9,930	6,190	4,840	4,660	4,560	6,320	3,410	3,520	1,960	2,560	1,800
4	4,890	a 12,400	5,320	4,660	6,820	4,580	6,360	3,000	3,370	1,740	2,160	1,720
5	4,620	a 7,880	4,310	4,600	8,970	4,690	5,680	3,020	3,660	1,640	1,950	2,110
6	4,460	5,960	3,580	4,700	6,710	4,520	6,100	3,440	3,460	1,360	1,950	2,080
7	4,770	5,160	4,160	4,320	6,180	9,660	6,100	3,400	4,680	1,520	1,960	1,640
8	4,800	5,710	4,520	3,980	5,420	12,800	5,600	3,460	4,520	1,850	1,960	1,680
9	3,660	5,020	4,690	4,240	5,350	8,320	5,360	3,540	4,500	2,560	2,110	1,760
10	2,760	4,760	4,620	3,700	4,790	7,240	4,900	3,220	3,880	2,220	1,760	2,340
11	3,260	4,520	4,660	4,180	4,830	7,220	5,050	5,240	3,890	2,060	1,660	2,840
12	3,370	5,530	4,720	4,580	4,710	6,710	5,080	6,320	3,080	2,220	1,700	2,810
13	3,140	10,300	4,720	4,020	5,070	6,180	4,900	5,180	2,940	2,290	1,840	2,520
14	3,250	12,300	4,240	3,660	5,550	5,760	5,120	10,300	3,100	3,420	1,700	1,920
15	3,590	a 15,000	4,020	4,300	4,940	5,360	580	9,300	2,820	3,280	1,770	1,780
16	3,260	a 13,300	3,840	4,780	4,700	5,200	a 50	6,520	2,800	2,540	2,020	1,980
17	2,930	a 13,000	3,980	4,520	4,740	5,390	a 50	5,680	2,940	2,240	2,200	2,020
18	2,990	a 13,600	4,120	4,360	4,660	5,960	a 50	5,700	3,570	2,840	1,760	2,040
19	2,770	9,500	4,600	3,840	4,560	12,100	1,020	13,500	3,170	3,040	2,100	2,730
20	2,960	8,010	4,940	4,040	4,600	9,860	2,220	9,840	2,780	2,320	1,820	2,740
21	3,530	6,960	4,380	4,500	4,540	7,540	3,440	7,580	2,820	2,060	1,960	2,690
22	4,120	6,400	4,540	5,020	4,320	6,820	3,640	6,340	2,760	2,080	3,000	2,220
23	4,120	6,300	4,580	5,140	4,400	6,440	3,660	5,490	2,720	2,040	2,760	1,660
24	3,900	6,140	4,490	5,020	4,880	6,060	3,720	5,800	2,820	2,480	1,800	1,790
25	3,590	5,920	4,580	4,460	4,940	6,230	3,060	5,060	2,850	2,670	1,800	2,150
26	2,820	6,440	4,180	4,660	4,840	6,220	3,010	4,820	2,820	2,260	2,020	2,810
27	2,460	6,880	3,780	4,400	5,040	5,780	3,160	4,900	2,880	2,020	1,740	2,220
28	3,260	6,500	4,260	4,600	4,620	4,980	3,340	4,300	2,680	2,140	1,780	1,880
29	3,910	6,480	5,530	4,720	------	5,260	3,040	2,900	2,780	1,920	1,920	1,920
30	3,630	6,040	4,700	4,740	------	5,080	3,330	4,550	2,770	1,920	1,810	1,620
31	2,500	------	4,660	4,560	------	5,290	------	3,580	------	1,920	1,820	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,890	2,460	3,850	2.06	2.38
November	15,000	3,260	7,770	4.16	4.64
December	6,190	3,580	4,580	2.45	2.82
January	5,140	3,660	4,470	2.39	2.76
February	8,970	4,240	5,120	2.74	2.85
March	12,800	4,040	6,470	3.46	3.99
April	6,360	50	3,810	2.04	2.28
May	13,500	2,900	5,340	2.86	3.30
June	4,680	2,680	3,260	1.74	1.94
July	3,420	1,360	2,230	1.19	1.37
August	3,000	1,660	2,010	1.07	1.23
September	2,840	1,620	2,110	1.13	1.26
The year	15,000	50	4,240	2.27	30.82

a Estimated.

NOTE.—Gates closed at Calderwood Dam, 2½ miles upstream, Apr. 15–19; leakage estimated 50 second-feet.

LITTLE TENNESSEE RIVER AT McGHEE, TENN.

LOCATION.—Water-stage recorder at junction of Little Tennessee and Tellico Rivers, 200 feet above highway bridge and half a mile south of McGhee, Monroe County. Zero of gage 760.07 feet above mean sea level.

DRAINAGE AREA.—2,470 square miles, including Tellico River.

RECORDS AVAILABLE.—January, 1905, to December, 1913; October, 1918, to September, 1930.

EXTREMES.—Maximum discharge during year, 25,800 second-feet Nov. 18 (gage height, 13.2 feet); minimum, 712 second-feet Apr. 18 (gage height, 2.86 feet). 1905–1913, 1918–1930: Maximum stage, 30.5 feet Apr. 2, 1920 (discharge not determined); minimum discharge, 480 second-feet Oct. 2, 1925. Maximum stage known, 39.0 feet March, 1867.

REMARKS.—Records excellent. Flow regulated somewhat by large power developments upstream. Gates in Calderwood Dam, 23 miles upstream, closed Apr. 14–20.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,160	2,860	6,250	5,640	4,920	5,520	6,250	3,380	3,910	2,860	2,210	1,900
2	8,250	4,130	6,750	6,000	5,040	5,400	6,120	3,480	4,130	2,450	2,660	1,960
3	8,250	11,500	7,500	7,250	5,400	5,160	7,750	3,480	3,910	2,140	2,660	1,930
4	5,520	17,100	6,750	6,250	8,000	5,400	8,500	3,800	3,690	1,960	2,410	1,650
5	5,040	11,000	5,400	5,880	13,000	5,400	7,500	3,270	3,910	1,830	2,070	2,020
6	4,810	7,500	4,350	5,760	9,000	5,280	8,250	3,690	3,910	1,570	2,020	2,320
7	4,920	6,120	4,460	5,520	7,500	12,000	8,250	4,130	5,280	1,620	1,930	1,830
8	5,160	6,500	5,280	4,700	7,000	19,400	7,250	4,130	5,040	1,760	1,830	1,660
9	4,580	6,120	5,520	5,160	6,250	12,200	6,750	4,350	4,810	2,660	2,100	1,620
10	2,760	5,640	5,280	4,350	5,640	9,500	6,000	4,130	4,240	2,660	1,900	2,070
11	3,380	5,040	5,280	4,580	5,760	9,500	5,880	4,580	4,130	2,280	1,600	2,960
12	3,580	5,520	5,280	5,160	5,520	9,250	6,000	8,000	3,270	2,390	1,680	2,860
13	3,270	10,800	5,280	4,700	6,500	8,000	5,760	6,250	3,270	2,450	1,760	2,760
14	3,270	17,900	5,040	4,130	9,250	7,250	5,880	10,500	3,270	3,060	1,840	2,020
15	3,580	21,500	4,580	4,920	7,000	6,750	3,800	13,000	3,060	4,350	1,760	1,880
16	3,690	20,000	4,130	5,640	6,250	6,500	945	8,000	3,060	2,660	1,980	1,880
17	3,060	20,000	4,240	5,160	6,000	6,250	760	7,000	3,480	2,560	2,140	2,000
18	3,160	23,300	4,700	5,160	5,640	7,250	712	6,750	4,020	2,390	1,960	1,980
19	2,960	14,800	5,280	4,350	5,520	15,000	844	18,900	3,270	3,380	2,100	2,340
20	3,060	10,500	6,000	4,460	5,400	14,500	2,210	16,100	3,060	2,660	1,980	3,160
21	3,270	9,000	5,040	5,160	5,400	10,000	3,690	10,000	3,060	2,170	1,930	2,860
22	4,240	8,000	5,160	7,250	5,040	9,000	4,020	8,250	2,960	2,230	2,560	2,560
23	4,920	7,750	5,280	7,000	5,400	8,250	4,130	7,000	2,960	2,240	3,060	1,760
24	4,130	7,500	4,920	6,250	6,120	7,500	4,460	7,000	2,960	2,430	2,000	1,730
25	4,020	7,000	5,040	5,880	6,250	7,750	3,580	6,250	2,960	2,860	1,760	2,100
26	3,270	7,500	5,040	5,280	5,760	8,250	3,480	5,640	3,060	2,560	1,960	3,270
27	2,860	8,500	4,580	5,160	6,250	7,750	3,480	5,640	2,960	2,100	1,930	2,860
28	2,960	8,000	6,750	5,280	5,760	6,500	3,910	5,280	2,860	2,320	1,660	2,050
29	4,130	7,750	7,500	5,400	-------	6,750	3,480	3,480	2,860	2,170	1,950	2,100
30	3,910	7,250	6,750	5,520	-------	6,250	3,910	5,160	2,860	1,960	1,660	1,780
31	3,060	-------	5,760	5,160	-------	6,250	-------	4,130	-------	2,020	1,790	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,250	2,760	4,130	1.67	1.92
November	23,300	2,860	10,200	4.13	4.61
December	7,500	4,130	5,460	2.21	2.55
January	7,250	4,130	5,420	2.19	2.52
February	13,000	4,920	6,450	2.61	2.72
March	19,400	5,160	8,380	3.39	3.91
April	8,500	712	4,790	1.94	2.16
May	18,900	3,270	6,600	2.67	3.08
June	5,280	2,860	3,540	1.43	1.60
July	4,350	1,570	2,410	.976	1.13
August	3,060	1,600	2,030	.822	.95
September	3,270	1,620	2,200	.891	.99
The year	23,300	712	5,120	2.07	28.14

CULLASAJA CREEK AT HIGHLANDS, N. C.

LOCATION.—Water-stage recorder at municipal dam one-fourth mile downstream from mouth of Big Creek and 2 miles northwest of Highlands, Macon County. Zero of gage 3,603.85 feet above mean sea level.

DRAINAGE AREA.—13.3 square miles.

RECORDS AVAILABLE.—December, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 382 second-feet Mar. 7 (gage height, 3.31 feet); minimum (estimated), 8 second-feet several times in September.

1927–1930: Maximum discharge (estimated), 2,420 second-feet Aug. 15, 1928 (gage height, 5.13 feet); minimum, that of September, 1930.

REMARKS.—Records fair except those estimated, which are poor.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	152	96	58	32	33	28	40	30	33	20	12	e 9
2	144	106	80	33	33	28	42	30	32	20	11	e 9
3	93	252	78	37	35	26	46	28	32	18	11	e 8
4	78	156	78	33	35	28	42	28	30	17	11	e 8
5	72	103	75	35	80	28	42	26	35	17	11	e 9
6	72	86	75	35	58	47	64	26	46	18	11	e 9
7	64	78	75	35	51	223	49	32	40	18	10	e 9
8	58	78	64	32	49	75	44	42	32	20	10	e 8
9	53	64	56	32	44	58	44	56	33	18	e 12	e 10
10	51	61	51	32	40	69	42	46	30	18	e 12	e 12
11	46	e 65	42	30	37	56	40	135	26	17	e 11	30
12	46	e 130	37	30	35	51	40	69	26	18	e 10	17
13	44	e 150	35	30	40	49	40	93	28	21	e 10	13
14	44	e 150	35	44	42	49	40	201	32	30	e 12	12
15	42	e 180	35	75	42	46	35	93	33	32	e 11	16
16	40	e 140	37	51	40	44	32	75	32	28	e 10	23
17	37	e 130	37	44	37	46	30	66	30	21	e 11	23
18	35	e 120	80	42	37	53	53	61	26	20	e 11	15
19	35	e 100	86	40	35	56	42	80	26	18	e 11	33
20	33	e 85	53	37	35	46	35	58	25	21	e 10	30
21	51	e 80	46	42	35	44	35	53	25	20	e 18	30
22	61	e 80	49	56	33	44	33	49	25	19	e 14	21
23	44	78	42	46	35	40	33	46	23	19	e 12	17
24	40	69	37	42	33	37	33	42	25	18	e 10	17
25	37	69	35	37	32	42	32	42	33	19	e 10	17
26	37	69	35	37	30	37	32	40	23	19	e 10	21
27	35	66	35	37	30	35	32	37	20	19	e 10	18
28	35	64	40	40	30	35	32	35	23	19	e 10	16
29	37	61	37	40	-------	35	32	35	21	15	e 10	16
30	40	58	33	37	-------	40	30	33	20	13	e 9	15
31	44	-------	33	33	-------	40	-------	32	-------	13	e 9	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	152	33	54.8	4.12	4.75
November	252	58	101	7.60	8.48
December	86	33	51.3	3.88	4.45
January	75	30	38.9	2.92	3.37
February	80	30	39.1	2.94	3.06
March	223	26	49.5	3.72	4.29
April	64	30	38.9	2.92	3.26
May	201	26	55.5	4.17	4.81
June	46	20	28.8	2.17	2.42
July	32	13	18.7	1.41	1.63
August	18	9	11.0	.827	.95
September	33	8	16.4	1.23	1.37
The year	252	8	41.9	3.15	42.84

e Estimated.

CULLASAJA CREEK AT CULLASAJA, N. C.

LOCATION.—Staff gage at Cullasaja, Macon County, 1 mile downstream from mouth of Ellijay Creek and 3½ miles upstream from mouth of creek.

DRAINAGE AREA.—87 square miles.

RECORDS AVAILABLE.—June, 1907, to December, 1909; February, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,230 second-feet Nov. 3 (gage height, 7.30 feet); minimum, 40 second-feet several times in September (gage height, 0.62 foot).

1907–1909, 1921–1930: Maximum discharge (estimated), 9,080 second-feet Aug. 15, 1928 (gage height, 17.04 feet); minimum, 19 second-feet Sept. 18–22, 1925 (gage height, 0.32 foot).

Maximum stage known, 17.2 feet July, 1916.

REMARKS.—Records good. Slight diurnal fluctuation due to milldams.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	798	198	291	228	198	162	171	138	171	96	63	44
2	1,100	208	363	218	198	154	171	138	162	90	68	43
3	565	1,120	314	248	218	146	189	154	162	90	63	41
4	416	808	291	228	503	146	180	138	154	90	62	40
5	416	338	269	228	503	138	180	130	154	84	60	45
6	363	416	248	228	389	256	269	130	218	84	59	47
7	314	389	269	218	314	1,040	218	154	208	78	57	44
8	280	389	269	218	291	444	208	154	189	78	55	42
9	258	338	258	208	269	363	198	208	162	78	60	48
10	248	291	248	198	248	291	189	171	146	73	58	58
11	228	314	238	189	238	291	180	597	146	73	56	189
12	218	629	238	189	228	258	171	389	138	73	52	78
13	198	729	218	189	228	238	171	389	130	84	48	68
14	189	729	218	189	228	228	162	942	154	109	60	73
15	180	905	208	338	218	218	162	444	146	102	57	73
16	180	695	198	228	198	218	154	338	138	96	50	109
17	171	662	198	218	198	218	154	338	138	96	53	96
18	162	597	291	208	189	291	228	389	130	90	56	63
19	162	503	258	198	189	314	198	503	130	84	54	102
20	162	416	218	189	180	258	171	363	123	78	52	109
21	228	389	198	218	180	238	154	314	123	78	90	109
22	269	389	218	269	180	228	162	280	116	73	68	78
23	198	389	248	218	208	218	154	258	116	73	61	68
24	180	363	228	208	180	208	154	248	109	73	52	63
25	162	338	218	198	171	218	146	228	138	73	50	90
26	162	444	218	189	171	208	138	218	116	68	48	84
27	154	363	208	208	162	198	138	208	109	68	52	68
28	162	314	280	218	162	198	146	198	102	63	49	59
29	171	314	258	218	-------	189	138	189	102	58	48	57
30	180	291	238	208	-------	189	138	180	96	63	47	57
31	180	-------	228	198	-------	180	-------	180	-------	63	45	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,100	154	279	3.21	3.70
November	1,120	198	476	5.47	6.10
December	363	198	247	2.84	3.27
January	338	189	216	2.48	2.86
February	503	162	237	2.72	2.83
March	1,040	138	254	2.92	3.37
April	269	138	173	1.99	2.22
May	942	130	281	3.23	3.72
June	218	96	141	1.62	1.81
July	109	58	80.0	.920	1.06
August	90	45	56.5	.649	.75
September	189	40	71.5	.822	.92
The year	1,120	40	209	2.40	32.61

NANTAHALA RIVER AT ALMOND, N. C.

LOCATION.—Staff gage 500 feet downstream from railroad station and highway bridge at Almond, Swain County, and one-fourth mile above mouth.

DRAINAGE AREA.—177 square miles.

RECORDS AVAILABLE.—April, 1912, to November, 1917; January, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,570 second-feet Nov. 15 (gage height, 3.42 feet); minimum, 96 second-feet Sept. 4 (gage height, 0.67 foot).

1912–1917, 1921–1930: Maximum discharge, probably crest of flood Mar. 4, 1917 (record of crest stage not available; mean daily discharge, 15,200 second-feet); minimum discharge, 79 second-feet Sept. 20–22, 1925 (gage height, 0.54 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	910	330	610	470	470	410	535	355	440	240	171	118
2	820	440	820	500	470	440	570	380	410	240	164	110
3	650	1,970	650	610	500	380	730	355	410	232	164	110
4	570	1,530	610	500	1,400	380	650	355	380	224	161	115
5	570	960	570	500	1,010	380	610	355	410	220	164	135
6	500	730	570	470	820	551	775	380	535	216	158	118
7	470	650	535	470	730	2,130	650	440	500	212	208	121
8	440	820	570	440	650	1,350	610	500	380	208	175	115
9	410	650	535	440	570	960	570	500	380	204	154	124
10	380	610	500	440	570	820	535	500	355	204	161	457
11	380	650	500	410	535	865	500	1,120	355	204	151	178
12	355	1,010	470	410	500	730	500	730	330	196	142	158
13	355	1,860	470	380	570	650	500	610	330	438	138	145
14	330	1,850	470	380	610	610	470	1,820	330	330	145	151
15	330	2,570	440	865	535	610	470	1,120	330	285	148	132
16	308	1,990	440	570	500	570	440	910	330	262	138	132
17	308	1,850	440	500	470	570	440	775	355	285	142	148
18	308	1,590	500	500	470	690	570	775	355	470	151	129
19	285	1,290	650	470	470	1,850	500	1,530	308	240	142	592
20	285	1,120	500	440	440	1,180	440	1,120	308	216	142	330
21	355	960	470	535	440	960	440	910	285	200	171	232
22	440	865	500	865	410	865	440	775	285	208	200	164
23	330	910	470	690	500	775	410	690	285	196	151	148
24	308	820	440	610	470	730	410	650	285	285	138	142
25	308	730	470	570	440	775	380	610	380	208	132	164
26	308	910	470	500	440	730	380	570	308	200	121	228
27	285	820	440	500	440	650	380	535	308	216	126	285
28	285	730	650	570	410	610	380	500	262	193	121	171
29	330	690	610	535	-------	610	410	500	262	178	121	154
30	330	610	535	500	-------	570	380	470	240	171	121	142
31	355	-------	500	500	-------	535	-------	440	-------	200	118	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	910	285	406	2.29	2.64
November	2,570	330	1,080	6.10	6.81
December	820	440	529	2.99	3.45
January	865	380	521	2.94	3.39
February	1,400	410	566	3.20	3.33
March	2,130	380	772	4.36	5.03
April	775	380	502	2.84	3.17
May	1,820	355	686	3.88	4.47
June	535	240	348	1.97	2.20
July	470	171	238	1.34	1.54
August	208	118	150	.848	.98
September	592	110	182	1.03	1.15
The year	2,570	110	498	2.81	38.16

TUCKASEGEE RIVER AT DILLSBORO, N. C.

LOCATION.—Staff gage at Dillsboro, Jackson County, 150 feet downstream from mouth of Scott Creek and 1,500 feet downstream from highway bridge.
DRAINAGE AREA.—348 square miles.
RECORDS AVAILABLE.—June, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year (estimated), 3,300 second-feet Nov. 3 (gage height, estimated, 3.90 feet); minimum (estimated), 140 second-feet Sept. 2, 3.

1928–1930: Maximum discharge (estimated), 14,000 second-feet Aug. 15, 1928 (gage height, estimated, 11.2 feet); minimum, that of Sept. 2, 3, 1930.

REMARKS.—Records fair except those estimated, which are poor. Slight diurnal fluctuation caused by operation of small power plant 1,300 feet upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,230	770	1,080	770	655	655	690	515	585	550	250	e 150
2	2,410	850	1,130	770	655	655	730	515	585	420	310	e 140
3	1,440	2,670	1,130	850	655	620	770	515	550	392	338	e 140
4	1,180	3,220	1,030	770	1,080	550	810	515	515	365	260	e 220
5	1,030	2,940	940	730	1,330	940	810	550	515	310	250	e 280
6	940	2,670	940	690	1,180	2,020	940	550	690	310	e 240	e 220
7	895	2,540	940	770	985	2,150	850	620	690	310	220	e 180
8	810	2,150	895	730	850	1,780	810	770	550	310	235	e 180
9	770	1,330	940	770	810	1,080	730	770	550	290	215	e 220
10	730	1,130	895	730	770	985	730	770	515	285	188	365
11	690	1,130	810	690	770	850	690	730	480	285	e 180	985
12	655	1,550	770	655	770	810	690	770	480	285	174	365
13	620	1,900	770	620	810	770	690	850	450	305	206	305
14	585	1,900	770	690	895	730	655	2,410	480	420	192	300
15	585	1,660	730	1,030	895	730	655	2,020	480	420	174	255
16	550	1,780	730	895	770	730	655	1,780	450	392	165	165
17	1,440	1,660	730	810	730	730	655	1,550	515	365	165	165
18	1,440	1,660	940	690	690	1,440	895	1,660	480	338	153	210
19	1,440	1,550	1,130	655	690	1,660	770	1,550	420	e 320	153	690
20	1,440	1,440	810	655	690	1,230	690	1,330	420	e 300	235	585
21	1,330	1,330	690	690	655	985	690	1,230	420	e 280	550	450
22	985	1,230	810	810	690	940	620	1,230	420	260	770	310
23	895	1,180	850	770	730	895	585	1,230	420	265	480	295
24	810	1,030	770	690	690	850	550	1,230	420	270	e 340	310
25	730	1,030	730	620	690	810	550	770	550	295	e 220	730
26	620	1,330	690	655	690	810	550	730	515	285	165	550
27	620	1,130	690	655	655	810	550	690	420	260	188	420
28	585	1,080	810	655	655	810	585	655	420	255	165	275
29	620	1,030	770	730	-------	730	585	655	365	255	e 160	275
30	620	1,130	730	730	-------	730	550	620	365	338	e 160	265
31	690	-------	690	690	-------	690	-------	585	-------	270	e 150	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,410	550	948	2.72	3.14
November	3,220	770	1,600	4.60	5.13
December	1,130	690	850	2.44	2.81
January	1,030	620	731	2.10	2.42
February	1,330	655	791	2.27	2.36
March	2,150	550	973	2.80	3.23
April	940	550	691	1.99	2.22
May	2,410	515	980	2.82	3.25
June	690	365	490	1.41	1.57
July	550	255	323	.928	1.07
August	770	150	247	.710	.82
September	985	140	333	.957	1.07
The year	3,220	140	746	2.14	29.09

e Estimated.

TUCKASEGEE RIVER AT BRYSON, N. C.

LOCATION.—Water-stage recorder 400 feet below Main Street Bridge in Bryson, Swain County, half a mile downstream from mouth of Deep Creek.

DRAINAGE AREA.—673 square miles.

RECORDS AVAILABLE.—November, 1897, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,680 second-feet Nov. 4 (gage height, 4.04 feet); minimum, 310 second-feet Aug. 31, Sept. 4, 7 (gage height, 0.80 foot).

1897–1930: Maximum discharge, 38,600 second-feet Mar. 19, 1899 (gage height, 11.0 feet); minimum, 27 second-feet Sept. 10, 1925 (gage height, 0.48 foot).

REMARKS.—Records excellent. Nonrecording gage used July 21–23.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,340	1,200	1,530	1,380	1,220	1,350	1,480	1,060	1,180	995	516	373
2	3,830	1,560	2,060	1,360	1,290	1,320	1,640	1,100	1,150	790	466	346
3	2,700	4,340	1,960	1,850	1,350	1,200	2,210	1,040	1,110	710	486	346
4	1,990	4,300	1,630	1,550	2,850	1,180	2,200	1,100	1,070	688	466	364
5	1,790	2,610	1,580	1,420	2,430	1,200	1,800	1,070	1,100	655	448	590
6	1,680	2,080	1,530	1,380	2,020	1,250	2,290	1,190	1,360	644	448	516
7	1,520	1,870	1,520	1,380	1,820	4,260	2,080	1,440	1,320	644	457	382
8	1,380	2,160	1,600	1,400	1,690	3,780	1,820	1,180	1,100	644	506	419
9	1,280	1,820	1,470	1,340	1,560	2,700	1,690	1,470	1,100	600	574	457
10	1,190	1,660	1,410	1,290	1,520	2,340	1,630	1,410	1,040	590	655	611
11	1,120	1,660	1,400	1,260	1,420	2,430	1,560	2,370	982	611	516	1,790
12	1,080	2,080	1,360	1,230	1,380	2,180	1,600	2,240	958	590	428	1,170
13	1,070	3,380	1,320	1,200	1,470	1,970	1,460	1,800	945	666	410	722
14	1,040	3,880	1,310	1,200	1,660	1,870	1,410	4,000	958	837	410	590
15	995	4,680	1,280	1,790	1,420	1,790	1,360	2,980	945	995	495	768
16	970	4,080	1,250	1,640	1,430	1,690	1,320	2,430	933	885	438	644
17	945	3,780	1,230	1,380	1,190	1,680	1,280	2,180	1,530	873	410	779
18	909	3,980	1,580	1,340	1,260	2,240	1,720	2,200	1,060	958	457	590
19	897	3,180	2,200	1,230	1,250	4,380	1,550	3,860	921	722	506	980
20	885	2,700	1,610	1,220	1,220	3,180	1,340	2,980	873	677	486	1,180
21	970	2,340	1,400	1,410	1,180	2,610	1,290	2,430	1,020	688	994	921
22	1,900	2,160	1,500	1,820	1,160	2,430	1,260	2,140	1,040	666	1,080	733
23	1,290	2,180	1,470	1,680	1,520	2,230	1,220	1,940	897	655	633	622
24	1,070	2,040	1,310	1,470	1,720	2,020	1,200	1,990	849	622	516	590
25	1,010	1,870	1,250	1,380	1,440	2,110	1,150	1,680	921	688	457	666
26	970	2,210	1,260	1,320	1,470	1,970	1,120	1,560	837	677	438	1,070
27	945	2,110	1,290	1,340	1,460	1,790	1,110	1,470	885	579	438	995
28	933	1,900	1,580	1,380	1,360	1,720	1,110	1,410	768	548	410	699
29	1,020	1,760	1,840	1,380	-------	1,660	1,140	1,350	733	516	391	590
30	1,030	1,550	1,400	1,360	-------	1,600	1,100	1,310	756	495	382	558
31	1,080	-------	1,420	1,280	-------	1,530	-------	1,230	-------	655	373	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,830	885	1,350	2.01	2.32
November	4,680	1,200	2,570	3.82	4.26
December	2,200	1,230	1,500	2.23	2.57
January	1,850	1,200	1,410	2.10	2.42
February	2,850	1,160	1,530	2.27	2.36
March	4,380	1,180	2,120	3.15	3.63
April	2,290	1,100	1,500	2.23	2.49
May	4,000	1,040	1,860	2.76	3.18
June	1,530	733	1,010	1.50	1.67
July	995	495	696	1.03	1.19
August	1,080	373	506	.75	.87
September	1,790	346	702	1.04	1.16
The year	4,680	346	1,390	2.07	28.12

SCOTT CREEK AT SYLVA, N. C.

LOCATION.—Water-stage recorder just downstream from Gunter Creek at Sylva, Jackson County.
DRAINAGE AREA.—56 square miles.
RECORDS AVAILABLE.—May, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 675 second-feet Nov. 3 (gage height, 2.21 feet); minimum, 20 second-feet Sept. 3 (gage height, 0.86 foot). 1928–1930: Maximum discharge, 5,650 second-feet July 10, 1929 (gage height, 6.00 feet); minimum, that of Sept. 3, 1930.
REMARKS.—Records good. Sylva Paperboard Co. diverts 2,000,000 gallons daily past station.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	175	63	109	101	92	83	105	81	a87	62	41	28
2	173	78	177	105	96	83	124	78	a84	59	43	27
3	101	446	129	114	99	76	150	79	81	58	45	27
4	86	208	117	96	198	76	134	86	83	58	41	28
5	88	142	117	94	158	76	126	79	94	55	38	38
6	83	117	114	92	129	92	173	116	124	54	38	34
7	76	120	119	92	117	245	131	96	105	53	104	29
8	69	150	117	92	107	182	121	86	88	a51	54	28
9	66	117	105	88	103	150	119	107	90	a49	44	32
10	63	107	105	86	96	142	114	90	79	a47	49	67
11	62	107	103	86	92	144	107	176	78	a45	44	100
12	62	242	101	86	90	131	107	109	76	a42	40	59
13	62	259	96	83	112	126	117	93	76	a50	37	50
14	59	276	96	84	107	119	112	300	74	53	46	48
15	56	276	96	174	99	114	105	161	76	61	46	43
16	54	221	90	114	92	114	101	161	72	55	37	57
17	53	275	90	105	90	117	99	147	101	55	41	48
18	51	239	134	101	88	170	176	150	72	56	43	37
19	51	204	134	94	83	251	119	230	69	47	43	140
20	54	176	103	90	81	185	107	164	66	a45	39	80
21	97	158	96	121	76	164	105	147	94	a43	150	64
22	104	158	107	150	71	170	96	136	71	a43	62	46
23	63	158	103	121	112	153	99	131	63	43	43	43
24	61	142	92	107	114	144	94	139	68	42	37	43
25	58	134	94	103	88	158	88	119	66	55	32	96
26	58	169	94	101	92	142	86	109	76	44	34	83
27	56	136	96	96	84	131	86	103	71	43	32	115
28	59	126	134	107	84	129	92	99	58	40	29	62
29	66	119	126	101	------	121	92	99	62	40	29	50
30	62	101	109	101	------	117	86	94	65	40	28	46
31	63	------	105	94	------	107	------	90	------	47	29	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	175	51	73.9	1.32	1.52
November	446	63	174	3.11	3.47
December	177	90	110	1.96	2.26
January	174	83	103	1.84	2.12
February	198	71	102	1.82	1.90
March	251	76	136	2.43	2.80
April	176	86	112	2.00	2.23
May	300	78	124	2.21	2.55
June	124	58	79.0	1.41	1.57
July	62	40	49.5	.884	1.02
August	150	28	45.7	.816	.94
September	140	27	54.9	.980	1.09
The year	446	27	96.9	1.73	23.47

a Estimated.

OCONALUFTY RIVER AT CHEROKEE, N. C.

LOCATION.—Staff gage one-fourth mile upstream from Cherokee Indian Reservation, three-fourths mile upstream from Cherokee, Swain County, and 2 miles upstream from mouth of Soco Creek.

DRAINAGE AREA.—133 square miles.

RECORDS AVAILABLE.—January, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,110 second-feet Nov. 15, Mar. 19 (gage height, 5.95 feet); minimum, 99 second-feet Sept. 1–4 (gage height, 3.68 feet).

1921–1930: Maximum discharge (estimated), 8,990 second-feet Jan. 21, 1922 (gage height, 9.50 feet); minimum, 56 second-feet Sept. 9, 1925 (gage height, 3.49 feet).

REMARKS.—Records good. Slight diurnal fluctuation during low stages caused by operation of small power plant one-fourth mile upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	446	259	550	333	271	359	405	248	288	182	131	99
2	1,070	282	515	333	282	333	515	236	271	165	128	99
3	744	773	412	550	282	333	970	231	259	158	125	99
4	515	823	392	412	623	308	744	225	254	150	125	196
5	480	550	372	386	586	308	623	225	248	142	125	138
6	446	446	346	372	480	314	702	282	271	138	118	150
7	366	412	340	359	446	796	623	320	295	138	122	131
8	320	480	346	346	399	1,070	515	320	248	138	125	131
9	288	446	333	340	366	785	480	359	236	128	412	115
10	271	405	320	320	346	662	480	333	220	128	161	173
11	259	399	308	308	333	875	515	1,020	206	131	158	550
12	248	550	295	295	314	702	446	702	196	131	118	282
13	206	922	295	282	359	623	399	515	196	131	115	215
14	201	1,220	282	282	359	586	372	1,170	187	259	128	187
15	220	1,860	282	446	320	550	359	702	187	386	135	211
16	187	1,280	282	340	292	550	346	623	177	182	118	215
17	206	1,390	282	301	271	550	340	550	366	366	118	187
18	206	785	480	308	271	1,070	480	623	248	301	138	165
19	196	970	702	282	271	1,700	366	1,070	206	154	161	265
20	191	830	480	276	271	1,070	340	785	191	138	135	259
21	236	702	446	340	271	830	333	702	623	187	412	242
22	320	623	399	480	271	785	320	586	259	161	248	187
23	225	586	359	412	480	662	320	515	215	158	169	169
24	215	515	346	366	480	623	301	515	191	161	138	161
25	201	480	340	308	386	702	282	446	182	276	128	177
26	191	586	327	236	412	623	271	399	177	177	122	236
27	177	515	359	327	399	550	259	372	201	154	115	242
28	206	480	412	320	372	515	259	359	165	146	112	187
29	225	446	386	301	-------	480	259	327	158	142	112	165
30	259	386	346	320	-------	446	259	314	161	138	108	177
31	276	-------	333	282	-------	412	-------	308	-------	131	105	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,070	177	310	2.33	2.69
November	1,860	259	680	5.11	5.70
December	702	282	376	2.83	3.26
January	550	236	341	2.56	2.95
February	623	271	364	2.74	2.85
March	1,700	308	651	4.89	5.64
April	970	259	429	3.23	3.60
May	1,170	225	496	3.73	4.30
June	623	158	236	1.77	1.98
July	386	128	177	1.33	1.53
August	412	105	150	1.13	1.30
September	550	99	194	1.46	1.63
The year	1,860	99	367	2.76	37.43

TELLICO RIVER NEAR TELLICO PLAINS, TENN.

LOCATION.—Staff gage 500 feet above mouth of Laurel Creek, half a mile above highway bridge, and 1½ miles southeast of Tellico Plains, Monroe County. Zero of gage 855.13 feet above mean sea level.

DRAINAGE AREA.—113 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1930. July, 1925, to October, 1927, at station half a mile downstream.

EXTREMES.—Maximum discharge during year, 4,820 second-feet Nov. 17 (gage height, 7.20 feet); minimum, 19 second-feet Sept. 3.

1925–1930: Maximum discharge, about 9,560 second-feet Mar. 23, 1929 (gage height, 10.9 feet); minimum, 13 second-feet Sept. 7, 1925 (gage height, 0.25 foot, lower gage).

REMARKS.—Records poor.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a 350	a 250	675	455	198	235	302	148	243	75	40	21
2	a 230	675	618	405	184	239	279	138	228	77	32	23
3	a 205	1,570	535	405	171	220	261	128	212	69	40	19
4	a 240	1,500	455	355	1,080	205	380	165	198	63	50	30
5	a 390	890	355	330	825	191	535	148	184	58	44	44
6	a 350	890	306	316	355	675	508	138	209	52	37	49
7	a 300	890	274	283	330	2,700	480	257	209	44	31	37
8	a 260	825	311	252	316	1,570	430	274	188	37	37	31
9	a 240	825	288	235	297	a 950	405	430	168	58	44	30
10	a 220	765	257	220	279	a 600	380	355	151	75	37	84
11	a 210	735	224	205	261	a 700	330	292	132	113	60	113
12	a 200	705	302	191	243	a 680	292	a 270	122	104	58	94
13	a 190	1,360	257	224	405	a 650	270	a 380	113	a 82	37	58
14	a 180	1,890	212	261	562	a 620	257	1,220	104	a 70	35	44
15	a 170	2,320	198	243	618	a 590	248	a 800	138	a 62	28	37
16	a 160	1,730	184	228	590	a 550	231	a 500	132	a 55	23	31
17	a 150	4,050	283	212	562	a1,300	212	a 350	143	a 50	25	26
18	a 145	1,650	380	212	430	a1,100	279	a 600	160	a 45	34	67
19	a 140	1,220	330	191	330	a 780	355	2,230	143	a 42	40	151
20	a 140	825	292	212	292	a 640	292	1,500	132	a 40	65	132
21	405	765	270	316	257	a 560	265	590	122	37	75	106
22	355	675	243	330	228	a 500	228	480	115	113	60	60
23	325	562	480	306	198	455	191	430	108	224	47	49
24	306	405	405	288	184	430	178	405	99	a 150	a 40	40
25	288	325	330	270	171	890	165	380	90	a 90	a 35	99
26	270	a 260	283	252	160	a 650	154	355	99	a 100	a 32	a 113
27	248	a 240	261	235	212	a 540	168	330	101	151	a 29	a 96
28	825	a 220	645	220	212	a 460	184	316	86	138	a 26	a 88
29	a 600	a 200	590	205	------	a 420	171	297	79	120	a 24	a 71
30	a 450	a 190	562	224	------	a 370	160	279	73	115	a 22	a 67
31	a 300	------	508	212	------	a 330	------	261	------	97	a 20	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	825	140	285	2.52	2.90
November	4,050	190	980	8.67	9.67
December	675	184	365	3.23	3.72
January	455	191	268	2.37	2.73
February	1,080	160	355	3.14	3.27
March	2,700	190	671	5.94	6.85
April	535	154	286	2.53	2.82
May	2,230	128	466	4.12	4.75
June	243	73	143	1.27	1.42
July	224	37	84.1	.744	.86
August	75	20	38.9	.344	.40
September	151	19	63.7	.564	.63
The year	4,050	19	333	2.95	40.02

a Estimated.

CLINCH RIVER AT CLEVELAND, VA.

LOCATION.—Chain gage at highway bridge in Cleveland, Russell County.
DRAINAGE AREA.—536 square miles.
RECORDS AVAILABLE.—October, 1920, to September, 1930.
EXTREMES.—Maximum discharge during year, 5,220 second-feet Feb. 5 (gage height, 8.53 feet); minimum, 43 second-feet July 6 (gage height, 1.72 feet).
1920–1930: Maximum gage height, 21.1 feet Dec. 22, 1926 (discharge not determined); minimum discharge, that of July 6, 1930.
REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	132	468	840	723	420	325	176	100	60	66	53
2	269	175	442	723	723	396	325	186	98	54	59	53
3	2,030	965	607	1,160	607	372	420	189	98	53	56	51
4	1,430	3,570	417	a1,640	1,870	420	860	165	85	55	52	51
5	965	2,030	368	a1,500	5,110	470	860	151	79	50	46	54
6	550	1,160	468	a1,290	3,000	420	1,540	159	93	45	49	48
7	392	694	550	965	1,400	740	3,420	156	88	46	48	50
8	294	a607	636	840	a1,120	2,300	1,700	134	92	53	52	53
9	204	a522	723	578	a740	1,540	1,190	116	93	49	58	56
10	204	a360	694	607	a740	a1,780	740	136	85	49	76	60
11	181	298	550	578	445	1,470	685	97	88	49	82	56
12	164	281	417	607	445	1,120	658	146	88	52	72	56
13	198	298	a550	442	548	a1,190	548	167	85	54	73	59
14	226	344	a495	468	a990	990	495	196	83	61	69	72
15	201	723	a607	442	a1,470	800	420	217	82	67	77	61
16	140	1,430	a607	442	1,190	a800	420	202	68	80	69	60
17	122	1,710	a620	392	925	740	372	154	70	77	65	61
18	135	4,120	a840	290	800	685	348	348	76	325	68	58
19	105	3,370	a1,100	260	740	a1,400	372	925	79	116	76	53
20	126	1,710	a1,220	237	685	a1,600	325	740	86	92	60	53
21	128	1,030	a1,000	417	470	a1,330	280	470	75	98	90	56
22	636	781	781	468	575	800	280	325	76	67	740	54
23	344	723	781	522	685	a740	268	276	68	59	445	53
24	120	a710	607	495	a860	a800	235	209	66	60	232	53
25	93	a690	522	442	a800	a685	228	165	67	57	138	56
26	132	a670	550	442	a685	602	213	159	68	77	108	60
27	164	a665	636	522	a600	495	199	134	68	93	82	54
28	132	636	1,100	442	a520	495	206	129	66	114	72	54
29	96	636	1,870	607	-------	396	196	159	61	116	72	49
30	115	321	1,360	694	-------	a370	189	136	59	114	64	51
31	172	-------	1,160	636	-------	a350	-------	112	-------	83	62	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,030	93	329	0.614	0.71
November	4,120	132	1,050	1.96	2.19
December	1,870	368	734	1.37	1.58
January	1,640	237	645	1.20	1.38
February	5,110	445	1,050	1.96	2.04
March	2,300	350	862	1.61	1.86
April	3,420	189	611	1.14	1.27
May	925	97	227	.42[a]	.49
June	100	59	79.7	.149	.17
July	325	45	78.2	.146	.17
August	740	46	109	.203	.23
September	72	48	55.3	.103	.11
The year	5,110	45	481	.897	12.20

[a] Estimated.

CLINCH RIVER AT SPEER FERRY, VA.

LOCATION.—Chain gage at highway bridge half a mile below Copper Creek, three-fourths mile from Speer Ferry, Scott County, and 1½ miles below Clinchport.

DRAINAGE AREA.—1,140 square miles.

RECORDS AVAILABLE.—October, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 13,200 second-feet Nov. 18 (gage height, 13.70 feet); minimum, 93 second-feet Sept. 25, 30 (gage height, 1.34 feet).

1920–1930: Maximum discharge, 37,200 second-feet Feb. 3, 1923 (gage height, 24.35 feet); minimum, 81 second-feet Sept. 10, 1925 (gage height, −0.32 foot).

REMARKS.—Records good. Speer Ferry roller mill, which formerly regulated flow at low stages, was not operated during the year.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	170	468	875	2,240	1,190	1,110	875	495	385	152	200	142
2	179	555	912	1,780	1,190	1,030	840	525	360	142	164	128
3	1,030	2,490	1,110	2,490	1,190	990	1,190	495	312	130	138	115
4	2,880	8,020	1,030	2,880	2,120	912	1,890	525	290	128	122	101
5	875	5,530	950	2,490	8,020	840	2,000	468	290	115	118	103
6	912	3,010	990	2,360	8,790	840	2,120	468	290	115	105	105
7	708	1,780	1,030	2,000	4,930	2,880	4,210	1,780	312	120	122	101
8	645	1,370	1,190	1,570	3,130	4,810	3,970	740	312	118	120	128
9	525	1,190	1,470	1,370	2,490	4,210	2,620	525	290	118	132	200
10	412	950	1,470	1,190	2,240	3,250	2,000	525	290	112	185	142
11	385	875	1,370	1,110	1,570	2,490	1,570	585	270	105	161	125
12	335	840	1,190	990	1,030	2,490	1,370	525	250	108	135	122
13	270	1,190	1,110	950	1,030	2,490	1,280	740	232	103	140	128
14	250	1,370	1,030	950	1,890	2,490	1,190	875	232	200	150	115
15	250	4,930	990	912	2,620	2,240	1,030	912	215	250	200	150
16	232	3,970	950	875	2,620	2,000	950	912	200	200	155	167
17	232	5,650	912	805	2,240	1,190	912	772	215	152	158	150
18	200	12,400	950	740	1,890	1,570	875	912	215	290	170	128
19	200	8,680	1,780	772	1,670	2,620	990	5,410	215	440	158	122
20	185	4,930	2,000	772	1,570	3,490	950	4,450	200	312	138	122
21	215	2,880	1,780	805	1,470	2,750	875	2,240	215	215	173	115
22	9,670	2,240	1,470	950	1,370	2,240	805	1,470	200	185	555	101
23	4,450	2,000	1,370	1,030	1,280	1,890	740	1,110	200	182	1,470	105
24	3,730	1,670	1,190	1,110	1,570	1,670	708	875	200	185	912	103
25	3,010	1,570	1,110	1,030	1,470	1,470	645	740	215	164	495	97
26	2,240	1,370	1,030	990	1,370	1,470	615	645	200	290	335	115
27	1,470	1,370	1,190	950	1,280	1,370	585	555	185	215	270	118
28	585	1,370	2,000	990	1,190	1,110	585	495	185	200	215	115
29	555	1,280	3,850	990	-------	1,030	525	468	173	215	200	110
30	555	1,190	3,490	1,110	-------	990	525	440	164	200	185	97
31	525	-------	2,880	1,370	-------	950	-------	440	-------	215	152	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,670	170	1,220	1.07	1.23
November	12,400	468	2,900	2.54	2.83
December	3,850	875	1,440	1.26	1.45
January	2,880	740	1.310	1.15	1.33
February	8,790	1,030	2,300	2.02	2.10
March	4,810	840	1,960	1.72	1.98
April	4,210	525	1,320	1.16	1.29
May	5,410	440	1,040	.912	1.05
June	385	164	244	.214	.24
July	440	103	183	.161	.19
August	1,470	105	256	.225	.26
September	200	97	122	.107	.12
The year	12,400	97	1,180	1.04	14.07

CLINCH RIVER NEAR TAZEWELL, TENN.

LOCATION.—Water-stage recorder at Evans Ferry, 600 feet below highway bridge on Tazewell-Morristown road, 2½ miles above mouth of Indian Creek, and 7 miles southeast of Tazewell, Claiborne County. Zero of gage 1,012.55 feet above mean sea level.

DRAINAGE AREA.—1,500 square miles.

RECORDS AVAILABLE.—August, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 15,900 second-feet Nov. 18 (gage height, 8.9 feet); minimum, 152 second-feet Sept. 7 (gage height, 1.11 feet). 1927–1930: Maximum discharge, about 28,000 second-feet Mar. 24, 1929 (gage height, 13.0 feet); minimum, that of Sept. 7, 1930.

REMARKS.—Records excellent. Daily readings of staff gage used Jar. 19–23.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	346	646	1,450	3,040	1,610	1,540	1,260	738	630	262	280	228
2	312	638	1,260	2,500	1,530	1,450	1,180	721	582	262	280	218
3	305	1,340	1,360	2,940	1,520	1,380	1,360	721	552	286	262	198
4	1,940	7,310	1,430	3,520	2,090	1,320	2,760	704	515	223	228	180
5	2,330	7,310	1,270	3,520	6,150	1,220	2,760	712	492	198	193	172
6	1,440	4,240	1,280	3,040	9,770	1,170	2,760	678	492	193	180	156
7	1,050	2,580	1,280	2,580	7,310	2,760	3,040	654	478	180	160	164
8	845	1,940	1,460	2,250	4,790	5,800	5,120	1,300	470	176	176	168
9	704	1,620	1,800	1,940	3,420	5,800	3,930	905	470	176	160	160
10	614	1,490	1,870	1,730	2,670	4,460	2,850	730	455	172	172	305
11	552	1,210	1,870	1,570	2,250	3,520	2,250	712	425	172	213	292
12	500	1,170	1,740	1,430	1,940	3,520	1,940	738	403	168	228	218
13	470	1,660	1,580	1,320	2,170	3,320	1,760	721	388	172	213	193
14	433	2,580	1,440	1,260	4,350	3,130	1,600	1,170	366	228	208	188
15	403	5,920	1,360	1,230	3,930	2,940	1,460	1,100	346	366	286	180
16	388	6,840	1,320	1,210	3,520	2,580	1,360	1,070	332	381	339	218
17	366	7,310	1,300	1,140	2,940	2,330	1,280	1,080	339	359	274	218
18	346	15,100	1,620	1,070	2,580	2,670	1,200	966	332	286	318	223
19	339	12,900	2,500	1,030	2,330	6,380	1,180	3,720	332	346	339	203
20	332	7,790	3,040	945	2,170	5,460	1,230	7,550	292	568	268	188
21	325	4,680	2,760	966	2,020	4,350	1,200	4,040	359	478	238	[a] 184
22	2,670	3,220	2,330	1,330	1,870	3,420	1,120	2,410	346	366	256	180
23	8,520	2,670	2,090	1,660	1,800	2,850	1,060	1,700	305	325	630	180
24	3,420	2,410	1,940	1,670	2,250	2,410	987	1,360	280	305	1,530	164
25	1,940	2,090	1,660	1,530	2,250	2,170	945	1,130	256	403	1,010	164
26	1,400	2,410	1,430	1,380	2,020	2,020	895	976	298	286	662	168
27	1,080	1,870	1,530	1,290	1,870	1,870	855	845	318	274	500	180
28	875	1,770	2,330	1,350	1,690	1,670	809	764	318	396	388	180
29	773	1,730	5,120	1,440	-------	1,530	791	738	286	346	318	172
30	712	1,620	5,010	1,530	-------	1,430	755	687	280	318	280	164
31	670	-------	4,040	1,610	-------	1,340	-------	654	-------	298	256	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,520	305	1,170	0.780	0.90
November	15,100	638	3,870	2.58	2.88
December	5,120	1,260	2,020	1.35	1.56
January	3,520	945	1,770	1.18	1.36
February	9,790	1,520	3,030	2.02	2.10
March	6,380	1,170	2,830	1.89	2.18
April	5,120	755	1,720	1.15	1.28
May	7,550	654	1,350	.900	1.04
June	630	256	391	.261	.29
July	568	168	289	.193	.22
August	1,530	160	350	.234	.27
September	305	156	194	.129	.14
The year	15,100	156	1,570	1.05	14.22

[a] Estimated.

CLINCH RIVER NEAR COAL CREEK, TENN.

LOCATION.—Water-stage recorder 300 feet upstream from highway bridge at Massengill's store, three-fourths mile above mouth of Coal Creek, and 3½ miles east of town of Coal Creek, Anderson County. Zero of gage 808.95 feet above mean sea level.

DRAINAGE AREA.—2,960 square miles.

RECORDS AVAILABLE.—May, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 31,000 second-feet Nov. 19 (gage height, 17.7 feet); minimum, 420 second-feet Sept. 6, 7 (gage height, 0.60 foot).

1927–1930: Maximum discharge, about 63,400 second-feet Mar. 23, 1929 (gage height, 30.7 feet); minimum, that of Sept. 6, 7, 1930.

REMARKS.—Records excellent.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	995	1,220	3,160	6,680	3,160	3,820	3,050	1,610	1,510	752	626	572
2	896	1,460	2,940	5,560	3,050	3,600	2,940	1,610	1,410	761	626	536
3	860	4,910	2,660	5,300	2,940	3,380	2,940	1,610	1,310	752	626	509
4	815	6,390	2,560	5,690	3,820	3,270	3,490	1,560	1,260	725	617	468
5	2,010	13,900	2,610	6,110	7,280	3,050	5,170	1,510	1,220	671	590	436
6	2,830	11,200	2,510	5,830	12,700	2,940	5,170	1,510	1,220	635	554	420
7	2,010	6,250	2,460	5,300	16,000	5,970	5,170	1,510	1,180	608	500	460
8	1,560	4,300	2,660	4,780	11,200	8,900	5,300	1,810	1,100	590	484	440
9	1,360	3,380	3,050	4,300	7,590	11,200	6,980	2,160	1,080	572	492	452
10	1,130	2,830	3,380	3,820	5,970	10,700	5,560	1,710	1,080	545	484	545
11	1,040	2,460	3,710	3,490	4,910	8,730	5,540	1,660	1,080	527	518	1,310
12	986	2,260	3,600	3,160	4,300	7,910	3,940	1,660	1,030	509	509	1,220
13	950	2,560	3,380	2,940	5,560	7,280	a 3,600	1,610	1,000	545	492	797
14	896	6,980	3,160	2,720	10,700	6,830	3,270	1,860	959	950	500	743
15	851	14,800	2,830	2,610	10,500	6,110	3,050	2,310	a 950	1,090	527	788
16	833	16,500	2,830	2,560	9,070	5,560	2,830	2,260	950	977	545	779
17	797	21,000	2,940	2,460	7,430	5,040	2,660	2,110	959	905	617	671
18	770	26,900	3,600	2,410	6,250	5,830	2,510	2,160	1,000	860	752	662
19	743	29,300	5,560	2,210	5,430	14,100	2,410	5,300	986	815	797	617
20	734	24,500	7,280	2,160	4,780	13,500	2,360	10,300	923	770	878	599
21	725	14,100	8,070	2,110	4,300	10,800	2,410	15,400	905	869	788	572
22	770	8,230	6,680	2,210	4,060	8,560	2,410	7,750	878	959	743	545
23	3,820	6,110	5,300	2,660	3,940	6,980	2,260	5,040	1,050	878	779	527
24	9,240	5,170	4,540	3,160	4,420	5,830	2,110	3,820	950	869	788	500
25	5,040	4,660	4,060	3,160	5,040	5,430	2,010	3,050	869	842	1,910	509
26	3,160	4,300	3,600	2,940	5,040	4,910	1,960	2,560	851	950	1,560	527
27	2,260	3,940	3,160	2,720	4,660	4,540	1,860	2,210	815	860	1,130	554
28	1,860	3,600	3,820	2,720	4,300	4,180	1,810	1,960	842	743	968	492
29	1,510	3,490	5,830	2,830	-------	3,820	1,760	1,810	779	743	815	468
30	1,360	3,380	8,070	2,940	-------	3,490	1,660	1,760	770	770	707	452
31	1,260	-------	8,230	3,050	-------	3,270	-------	1,610	-------	680	644	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,240	725	1,740	0.588	0.68
November	29,300	1,220	8,670	2.93	3.27
December	8,230	2,460	4,140	1.40	1.61
January	6,680	2,110	3,570	1.21	1.40
February	16,000	2,940	6,370	2.15	2.24
March	14,100	2,940	6,440	2.18	2.51
April	6,980	1,660	3,240	1.09	1.22
May	15,400	1,510	3,060	1.03	1.19
June	1,510	770	1,030	.348	.39
July	1,090	509	765	.258	.30
August	1,910	484	728	.246	.28
September	1,310	420	606	.205	.23
The year	29,300	420	3,340	1.13	15.32

a Estimated.

POWELL RIVER NEAR PENNINGTON GAP, VA.

LOCATION.—Chain gage at highway bridge 1,000 feet below North Fork and 3 miles southeast of Pennington Gap, Lee County.

DRAINAGE AREA.—304 square miles.

RECORDS AVAILABLE.—October, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 9,900 second-feet May 19 (gage height, 12.98 feet); minimum, 13 second-feet several days in September (gage height, 1.50 feet).

1920–1930: Maximum discharge, 28,900 second-feet Mar. 23, 1929 (gage height, 27.66 feet); minimum, that of September, 1930.

REMARKS.—Records good. Two small gristmills above gage cause considerable diurnal fluctuation, and a large steam plant on North Fork uses practically entire flow of that stream during low-water season for condenser and boiler feed water.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	114	229	470	214	350	244	134	108	34	31	19
2	30	114	276	408	244	312	276	123	96	42	28	18
3	34	4,280	244	658	229	294	470	143	88	37	21	17
4	100	2,440	158	633	428	276	658	138	79	47	19	17
5	71	880	168	584	3,080	260	633	123	68	37	19	15
6	54	514	186	537	1,620	229	633	123	146	21	18	14
7	52	350	229	428	940	1,200	537	118	110	24	19	15
8	38	294	388	388	658	1,940	470	118	96	23	15	57
9	42	229	492	331	514	1,550	388	110	79	25	19	18
10	36	200	470	229	449	1,000	350	214	73	26	28	32
11	31	200	408	260	428	1,000	312	214	66	23	18	21
12	31	214	369	244	331	1,200	276	186	59	21	20	18
13	31	294	294	229	537	764	244	158	48	25	18	24
14	30	537	276	229	658	764	244	200	52	94	28	25
15	30	3,180	260	276	1,130	658	229	200	48	100	50	28
16	28	1,620	294	200	658	514	214	186	45	61	54	30
17	25	4,080	312	183	608	449	186	165	50	40	37	24
18	23	6,380	940	181	470	470	186	200	59	37	38	23
19	21	1,860	2,440	132	428	1,130	273	7,150	59	79	36	21
20	20	940	1,270	153	369	820	200	1,860	54	45	28	19
21	43	633	820	186	350	764	200	940	62	32	25	17
22	2,890	470	608	229	331	560	200	560	66	30	66	15
23	1,060	428	537	244	388	470	186	408	47	48	108	13
24	408	388	388	168	633	388	178	312	50	50	86	13
25	260	331	350	186	608	428	160	244	43	38	50	13
26	181	312	312	200	537	428	146	200	43	37	38	18
27	150	312	312	229	470	369	129	181	59	70	32	14
28	118	312	880	260	388	331	123	168	55	57	25	15
29	127	312	1,060	260	-------	312	129	183	40	73	21	15
30	125	244	820	244	-------	312	127	155	37	52	20	15
31	129	-------	633	244	-------	276	-------	123	-------	42	20	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,890	20	202	0.664	0.77
November	6,380	114	1,080	3.55	3.96
December	2,440	158	530	1.74	2.01
January	658	132	297	.977	1.13
February	3,080	214	632	2.08	2.17
March	1,940	229	639	2.10	2.42
April	658	123	287	.944	1.05
May	7,150	110	495	1.63	1.88
June	146	37	66.2	.218	.24
July	100	21	44.5	.146	.17
August	108	15	33.4	.110	.13
September	57	13	20.1	.066	.07
The year	7,150	13	358	1.18	16.00

POWELL RIVER NEAR ARTHUR, TENN.

LOCATION.—Water-stage recorder at highway bridge at McHenry's ford on State highway 32, 2⅓ miles east of Arthur, Claiborne County, and 2⅓ miles below mouth of Indian Creek. Zero of gage 1,045.84 feet above mean sea level.

DRAINAGE AREA.—685 square miles.

RECORDS AVAILABLE.—October, 1919, to September, 1930.

EXTREMES.—Maximum discharge during year, 11,900 second-feet Nov. 19 (gage height, 12.63 feet); minimum, 88 second-feet Sept. 6 (gage height, 0.13 foot).

1919–1930: Maximum discharge, about 27,800 second-feet Mar. 24, 1929 (gage height, 23.8 feet); minimum, 82 second-feet Sept. 10, 11, 1925 (gage height, 0.00 foot).

Maximum stage known, 27.2 feet Jan. 29, 1918.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	228	280	728	1,460	694	1,020	782	380	415	190	168	114
2	204	480	645	1,240	667	960	755	375	380	200	150	111
3	193	2,240	650	1,400	645	900	840	390	355	172	129	105
4	176	4,530	645	1,500	1,080	840	1,400	370	330	168	126	102
5	172	4,230	590	1,430	2,930	782	1,460	390	321	159	114	102
6	204	1,770	557	1,330	4,630	755	1,460	375	308	156	114	92
7	232	1,110	596	1,200	3,290	1,300	1,360	350	321	156	105	92
8	200	870	656	1,110	2,160	2,570	1,300	360	355	147	100	85
9	186	700	810	990	1,600	3,290	1,040	335	335	141	144	105
10	182	596	960	900	1,300	2,320	990	330	308	132	114	350
11	168	546	960	810	1,040	2,000	900	345	267	132	100	220
12	159	543	900	755	1,020	2,080	840	415	249	129	108	165
13	150	870	810	700	1,400	2,160	782	460	236	147	105	141
14	150	1,960	728	678	2,480	1,840	755	470	236	285	105	156
15	147	5,430	700	672	2,840	1,630	700	480	224	285	129	153
16	144	5,970	700	650	2,160	1,400	662	470	220	186	190	132
17	141	6,080	700	628	1,700	1,240	628	450	232	228	172	120
18	141	9,440	960	590	1,460	1,530	601	590	254	208	220	117
19	135	8,720	2,240	540	1,270	3,110	590	2,750	232	193	244	126
20	135	4,230	3,560	508	1,110	2,930	628	8,120	220	168	186	114
21	141	2,320	2,750	496	990	2,400	612	3,650	298	186	224	111
22	165	1,630	1,770	645	930	1,960	568	1,800	308	182	254	108
23	1,270	1,330	1,430	755	930	1,600	540	1,270	228	186	232	105
24	1,500	1,240	1,240	755	1,300	1,360	518	990	232	193	176	100
25	782	1,110	1,050	689	1,500	1,270	491	782	208	204	193	114
26	540	990	900	618	1,430	1,240	465	684	193	172	224	120
27	420	900	870	640	1,300	1,170	440	590	179	186	182	123
28	335	870	1,200	645	1,040	1,020	425	524	186	159	156	114
29	298	840	1,840	755	-------	930	415	535	176	147	138	108
30	285	782	2,160	782	-------	900	390	480	200	135	129	111
31	272	-------	1,800	728	-------	900	-------	460	-------	168	123	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,500	135	305	0.445	0.51
November	9,440	280	2,420	3.53	3.94
December	3,560	557	1,160	1.69	1.95
January	1,500	496	858	1.25	1.44
February	4,630	645	1,600	2.34	2.44
March	3,290	755	1,590	2.32	2.68
April	1,460	390	778	1.14	1.27
May	8,120	330	967	1.41	1.63
June	415	176	267	.390	.44
July	285	129	177	.258	.30
August	254	100	157	.229	.26
September	350	92	128	.187	.21
The year	9,440	92	862	1.26	17.07

EMERY RIVER AT OAKDALE, TENN.

LOCATION.—Water-stage recorder 1,000 feet below highway bridge and mouth of Mud Lick Creek, at Oakdale, Morgan County. Zero of gage 763.26 feet above mean sea level.

DRAINAGE AREA.—758 square miles.

RECORDS AVAILABLE.—October, 1929, to September, 1930.

EXTREMES.—Maximum discharge during year, 23,800 second-feet Nov. 17 (gage height, 15.7 feet); minimum, 0.4 second-foot Sept. 6, 7 (gage height, 1.20 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a 380	296	820	1,740	1,090	1,800	1,070	168	198	7.1	53	1.3
2	a 330	4,300	796	1,560	955	1,620	1,040	155	168	6.6	32	1.4
3	a 240	12,900	788	2,460	910	1,360	2,340	158	145	5.5	22	1.5
4	204	6,050	660	2,280	3,360	1,170	4,580	160	126	3.9	17	1.3
5	180	3,230	632	1,980	6,050	1,050	3,300	148	112	3.1	12	.7
6	170	2,100	625	1,680	4,020	955	2,580	175	110	2.8	11	.4
7	168	1,460	764	1,400	2,900	8,460	2,100	180	112	2.6	7.6	.4
8	162	1,130	1,260	1,270	2,220	8,880	1,620	a 168	122	2.4	6.1	.6
9	150	928	1,620	1,460	1,680	4,860	1,290	a 219	110	2.0	5.8	.7
10	130	740	1,560	1,380	1,460	3,360	1,090	a 505	94	1.5	5.5	1.5
11	110	625	1,380	1,220	1,240	4,580	910	a 1,000	78	1.2	5.3	2.0
12	100	611	1,190	1,110	1,050	5,000	788	a 928	67	1.0	3.6	4.7
13	96	780	1,040	1,000	7,650	3,490	684	646	60	.5	2.9	5.3
14	86	5,590	901	946	13,200	2,640	604	597	51	3.6	2.9	5.3
15	74	15,100	1,050	910	6,210	2,100	530	625	47	3.6	2.9	10
16	62	6,890	2,710	812	4,020	1,680	480	525	40	3.6	2.8	19
17	60	18,000	2,580	676	3,040	1,510	435	466	39	4.1	2.0	54
18	56	11,300	4,860	625	2,340	6,210	408	462	36	18	2.6	51
19	50	5,290	5,890	554	1,860	13,200	362	4,160	29	53	2.8	36
20	41	3,300	3,880	490	1,510	6,370	326	3,230	26	24	2.9	27
21	43	2,340	2,640	515	1,270	4,020	296	2,040	25	17	3.1	19
22	57	1,800	2,160	700	1,090	2,970	275	1,310	24	12	5.0	15
23	72	1,620	1,860	788	1,510	2,280	258	910	21	12	5.8	12
24	140	1,460	1,510	578	4,440	1,860	240	1,160	17	27	5.0	11
25	172	1,310	1,290	618	3,620	3,490	222	1,000	16	22	3.6	18
26	152	1,370	1,170	604	2,840	4,160	207	660	14	47	3.1	20
27	128	1,620	1,250	780	2,460	3,230	189	495	11	46	2.8	14
28	112	1,560	2,840	1,620	2,040	2,520	183	399	9.0	25	2.4	15
29	108	1,330	3,750	1,740	-------	2,100	183	322	7.1	57	2.0	20
30	106	1,060	2,840	1,510	-------	1,680	178	275	6.1	120	1.7	25
31	128	-------	2,220	1,310	-------	1,320	-------	231	-------	90	1.4	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	380	41	131	0.173	0.20
November	18,000	296	3,870	5.11	5.70
December	5,890	625	1,890	2.49	2.87
January	2,460	490	1,170	1.54	1.78
February	13,200	910	3,070	4.05	4.22
March	13,200	955	3,550	4.68	5.40
April	4,580	178	959	1.27	1.42
May	4,160	148	757	.999	1.15
June	198	6.1	64.0	.084	.09
July	120	.5	20.2	.027	.03
August	53	1.4	7.70	.010	.01
September	54	.4	13.1	.017	.02
The year	18,000	.4	1,280	1.69	22.89

a Estimated.

DADDY CREEK NEAR GRASSY COVE, TENN.

LOCATION.—Staff gage at highway bridge on Crossville-Grassy Cove road 3 miles northwest of Grassy Cove, Cumberland County, and 5 miles above mouth of Bird Creek.

DRAINAGE AREA.—46.4 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1930 (discontinued).

EXTREMES.—Maximum discharge during year, 1,480 second-feet Nov. 17 (gage height, 9.55 feet); no flow July 28 to Sept. 13, Sept. 20–25.

1925–1930: Maximum discharge, about 14,600 second-feet Mar. 23, 1929 (gage height, from high-water mark, 26.3 feet); no flow Sept. 6, 15–28, 1925, July 28 to Sept. 13, Sept. 20–25, 1930.

REMARKS.—Records fair below and poor above 1,000 second-feet.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.
1	39	78	79	118	62	144	79	11	8.6	0.4	0
2	30	320	83	118	65	118	71	8.6	7.4	.3	0
3	24	1,010	92	275	83	105	245	6.4	6.4	.2	0
4	21	510	98	215	390	89	305	50	5.5	.2	0
5	19	260	105	158	495	79	200	13	4.6	.2	0
6	19	165	105	131	290	84	165	19	6.1	.1	0
7	16	118	118	105	200	1,310	131	14	5.2	.3	0
8	13	88	124	105	138	610	98	98	5.5	.5	0
9	a 12	73	131	151	105	340	80	105	5.2	.4	0
10	a 11	60	118	124	98	230	69	86	4.6	.3	0
11	a 10	60	98	98	79	475	60	67	4.0	.3	0
12	a 9	62	87	87	72	405	53	54	3.4	.5	0
13	a 8	98	77	78	690	260	47	45	2.9	.4	0
14	a 8	355	66	74	790	179	43	61	2.5	2.9	.2
15	a 7	1,210	60	68	420	138	38	55	2.3	2.3	.5
16	a 7	710	65	59	260	105	35	48	2.1	1.2	.3
17	a 6	1,420	67	52	215	105	35	42	2.5	.5	.2
18	a 6	770	200	45	151	355	33	46	2.5	.5	.1
19	a 5	370	275	48	118	860	28	200	2.1	.4	.1
20	a 5	230	186	52	98	530	22	172	1.7	.2	0
21	a 6	165	144	51	79	138	21	112	1.9	.2	0
22	a 7	131	124	72	68	179	18	66	1.2	.2	0
23	a 8	112	118	65	305	112	16	65	.6	1.0	0
24	a 15	112	105	51	495	105	15	89	1.1	.6	0
25	a 20	105	89	40	290	370	14	63	.6	.8	0
26	a 15	131	74	51	260	320	12	44	.4	.3	.5
27	a 13	158	92	62	230	260	10	34	.2	.1	1.3
28	a 11	131	320	98	186	186	13	25	.2	0	1.1
29	a 11	112	305	92	------	144	12	19	.1	0	.6
30	a 11	83	200	79	------	112	10	17	.1	0	.3
31	a 15	------	151	72	------	92	------	14	------	0	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	39	5	13.1	0.282	0.31
November	1,420	60	307	6.62	7.39
December	320	60	128	2.76	3.18
January	275	40	93.4	2.01	2.32
February	790	62	240	5.17	5.38
March	1,310	79	275	5.93	6.84
April	305	10	65.9	1.42	1.58
May	200	6.4	56.4	1.22	1.41
June	8.6	.1	3.05	.066	.07
July	2.9	0	.49	.011	.01
September	1.3	0	.17	.0037	.004
The year	1,420	0	97.4	2.10	28.49

a Estimated.

NOTE.—No flow during August.

PINEY RIVER AT SPRING CITY, TENN.

LOCATION.—Staff gage at highway bridge on Dayton-Harriman pike 175 feet below Southern Railway bridge and 1 mile north of Spring City, Rhea County. Zero of gage 755.76 feet above mean sea level.

DRAINAGE AREA.—96.7 square miles.

RECORDS AVAILABLE.—June, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 4,580 second-feet Mar. 7 (gage height, 5.10 feet); no flow Sept. 3–10.

1927–1930: Maximum discharge, about 16,500 second-feet Mar. 23, 1929 (gage height, 8.25 feet); no flow several days during October and November, 1927, and Sept. 3–10, 1930.

REMARKS.—Records good above and fair below 10 second-feet.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	55	133	218	105	318	175	34	25	1.6	3.0	0.1
2	52	477	175	218	100	281	178	29	21	1.5	1.7	.1
3	42	2,310	155	357	94	190	383	30	18	1.5	1.4	0
4	37	850	140	305	660	160	447	52	14	1.4	1.2	0
5	38	542	119	257	800	130	371	47	20	1.3	.9	0
6	41	357	122	218	505	133	347	39	31	1.1	.8	0
7	38	257	122	170	383	3,500	291	38	30	1.1	.7	0
8	32	196	150	160	287	1,100	240	41	21	1.1	.6	0
9	27	150	140	150	223	640	204	68	16	.9	.7	0
10	23	119	133	126	175	495	178	66	13	.8	.7	0
11	21	105	122	112	140	680	156	64	11	.8	.6	.7
12	19	105	108	102	119	565	135	57	8.0	.7	.4	1.1
13	18	212	97	97	580	440	116	50	6.9	.6	.4	1.3
14	16	1,900	89	89	970	347	106	68	5.9	1.6	.4	1.3
15	15	2,200	83	81	580	291	98	64	5.0	2.1	.5	1.3
16	13	910	74	72	435	230	86	68	4.2	1.6	.4	1.3
17	13	3,760	78	62	344	230	77	79	44	1.5	.5	1.2
18	12	1,240	170	58	269	565	70	77	44	1.7	.5	1.1
19	12	660	396	41	212	1,100	63	204	22	1.4	.7	1.0
20	11	470	331	49	165	725	54	221	15	1.8	1.0	1.1
21	14	344	257	62	133	495	54	156	11	1.8	.8	1.1
22	36	281	223	100	112	383	48	111	9.3	1.4	.7	.8
23	44	240	190	89	580	302	44	90	6.9	1.3	.6	.8
24	33	212	150	94	705	260	44	171	5.4	1.7	.4	.8
25	28	201	130	97	505	495	41	116	4.6	1.6	.4	1.3
26	25	293	112	78	456	495	38	86	3.4	1.4	.3	6.4
27	25	344	126	97	396	434	35	68	2.3	1.4	.2	6.4
28	24	305	416	133	338	377	35	54	1.8	1.4	.2	4.2
29	27	240	435	126	-------	308	35	44	1.6	1.3	.1	3.4
30	32	180	350	122	-------	240	35	36	1.5	4.2	.1	1.9
31	43	-------	275	112	-------	204	-------	31	-------	5.0	.1	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	62	11	28.2	0.292	0.34
November	3,760	55	650	6.72	7.50
December	435	74	181	1.87	2.16
January	357	41	131	1.35	1.56
February	970	94	370	3.83	3.99
March	3,500	130	520	5.38	6.20
April	447	35	139	1.44	1.61
May	221	29	76.1	.787	.91
June	44	1.5	14.1	.146	.16
July	5.0	.6	1.57	.016	.02
August	3.0	.1	.68	.0070	.01
September	6.4	0	1.29	.013	.01
The year	3,760	0	174	1.80	24.47

RICHLAND CREEK AT DAYTON, TENN.

LOCATION.—Staff gage at highway bridge on Dayton-Chattanooga pike in Dayton, Rhea County, 1,000 feet below Southern Railway bridge. Zero of gage 684.73 feet above sea level.

DRAINAGE AREA.—71.7 square miles.

RECORDS AVAILABLE.—June, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,130 second-feet Nov. 17 (gage height, 5.0 feet); minimum, 0.3 second-foot Sept. 6–10 (gage height, 1.08 feet).

1927–1930: Maximum discharge, about 7,940 second-feet Mar. 23, 1929 (gage height, 8.0 feet); no flow July 28, Aug. 19 to Sept. 12, 1929.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	74	128	143	80	153	97	12	8.2	0.8	0.9	0.8
2	71	855	128	140	78	133	92	10	6.2	.8	.9	.7
3	100	1,300	126	207	76	119	153	12	4.4	.8	.9	.7
4	90	565	112	176	600	105	222	153	3.7	.7	.8	.5
5	71	237	101	158	290	99	193	74	3.3	.7	.8	.4
6	62	28	103	140	254	86	179	47	12	.7	.8	.3
7	57	25	110	128	207	1,580	158	34	13	.7	.8	.3
8	39	41	105	119	166	500	130	32	7.8	.7	.8	.3
9	25	32	99	103	140	320	114	31	4.6	.8	.8	.3
10	19	48	92	90	123	300	101	28	3.2	.8	.7	.3
11	14	80	88	78	110	300	82	25	2.7	.8	.7	.4
12	12	101	82	74	193	232	71	22	2.2	.8	.7	.7
13	10	193	78	71	465	199	67	23	1.9	.8	.7	.8
14	8.5	1,300	73	67	680	144	58	31	1.7	.8	.7	1.0
15	8.5	1,400	67	63	530	122	47	63	1.5	.8	.7	1.3
16	8.2	810	65	60	310	99	37	50	1.3	.8	.8	1.3
17	7.8	2,130	73	56	193	115	35	44	14	.8	.8	1.3
18	7.8	765	128	53	169	279	33	84	13	.8	.8	1.3
19	9.1	405	136	50	146	242	28	103	7.8	.8	.8	1.2
20	12	290	146	47	123	260	24	94	4.2	.8	.8	1.2
21	12	222	153	65	105	183	21	86	2.8	.8	.9	1.3
22	22	193	146	71	130	144	20	74	2.0	.8	1.0	1.3
23	74	176	136	65	310	139	18	67	1.7	.7	.9	1.3
24	56	163	126	65	254	117	17	55	1.5	1.3	.8	1.3
25	33	158	112	65	237	279	16	47	1.3	3.1	.8	3.3
26	30	207	101	65	207	237	14	41	1.2	2.3	.8	6.5
27	26	207	112	80	193	193	14	32	1.1	1.8	.8	3.7
28	23	171	153	92	174	169	13	24	1.0	2.3	.8	2.5
29	34	169	171	88	------	136	13	19	.9	3.3	.8	1.9
30	41	146	193	84	------	121	13	13	.8	1.2	.8	1.5
31	69	------	166	80	------	103	------	10	------	1.0	.8	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	100	7.8	36.0	0.502	0.58
November	2,130	25	416	5.80	6.47
December	193	65	116	1.62	1.87
January	207	47	91.7	1.28	1.48
February	680	76	234	3.26	3.40
March	1,580	86	233	3.25	3.75
April	222	13	69.3	.967	1.08
May	153	10	46.4	.647	.75
June	14	.8	4.37	.061	.07
July	3.3	.7	1.10	.015	.02
August	1.0	.7	.80	.011	.01
September	6.5	.3	1.32	.018	.02
The year	2,130	.3	103	1.44	19.50

HIWASSEE RIVER AT MURPHY, N. C.

LOCATION.—Water-stage recorder 500 feet downstream from bridge in Murphy, Cherokee County, and half a mile upstream from mouth of Valley River.

DRAINAGE AREA.—410 square miles.

RECORDS AVAILABLE.—June, 1896, to June, 1917; October, 1918, to September, 1930.

EXTREMES.—Maximum discharge during year, 7,330 second-feet Nov. 3 (gage height, 6.90 feet); minimum 76 second-feet Sept. 3 (gage height, 1.55 feet). 1896–1917, 1918–1930: Maximum discharge, 23,100 second-feet Mar. 19, 1899 (gage height, 18.4 feet); minimum stage, 2.10 feet Dec. 6, 1924 (discharge not determined).

REMARKS.—Records excellent except those estimated, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,940	605	1,160	1,050	1,020	a 810	918	614	655	376	276	160
2	1,680	1,010	1,520	1,020	1,000	a 780	954	606	625	348	252	179
3	1,300	4,670	1,420	1,050	1,120	755	1,320	696	605	386	235	156
4	1,190	4,260	1,240	1,010	1,980	735	1,200	740	556	314	257	196
5	1,140	2,150	1,200	935	2,290	735	1,100	686	615	352	235	213
6	1,080	1,710	1,160	913	1,690	849	1,260	671	848	290	208	197
7	990	1,470	1,120	880	1,390	3,570	1,140	720	817	330	282	188
8	828	1,680	1,140	880	1,300	2,510	1,040	693	655	302	239	188
9	870	1,440	1,080	859	1,170	1,670	945	920	605	322	386	233
10	786	1,240	1,040	838	1,100	1,440	957	854	575	330	490	370
11	775	1,500	968	891	1,060	1,350	898	1,120	547	322	235	257
12	655	2,990	1,000	745	979	1,240	878	1,030	528	322	246	257
13	635	4,170	913	796	1,120	1,080	862	885	528	398	224	283
14	715	3,870	979	848	1,130	1,120	800	2,410	528	474	2 3	224
15	575	5,530	935	1,510	1,120	990	844	1,640	490	383	212	202
16	595	4,540	891	1,290	968	968	848	1,220	564	369	240	240
17	556	4,570	913	1,060	979	1,060	737	1,090	625	360	218	252
18	556	3,260	968	1,050	924	1,160	844	1,170	538	752	213	230
19	595	2,510	1,220	968	913	2,330	838	2,560	519	402	208	536
20	547	2,010	990	828	902	1,660	748	1,800	415	352	208	466
21	666	1,800	946	990	880	1,570	767	1,380	440	296	218	358
22	1,030	1,670	957	1,570	859	1,290	700	1,160	423	309	283	270
23	705	1,650	1,010	1,420	870	1,270	705	1,020	440	436	257	240
24	715	1,440	935	1,220	935	1,120	694	1,010	398	440	218	235
25	635	1,370	891	1,190	870	1,210	685	859	508	302	213	315
26	665	1,800	891	1,000	880	1,200	705	817	440	296	202	416
27	655	1,550	817	1,040	859	980	632	786	460	302	188	416
28	625	1,470	1,290	1,080	a 830	979	665	745	440	296	193	278
29	675	1,390	1,340	1,060	-------	979	615	725	346	283	184	238
30	615	1,240	1,070	1,060	-------	957	605	765	394	257	180	230
31	725	-------	1,080	1,050	-------	890	-------	675	-------	364	170	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,940	547	830	2.02	2.33
November	4,670	605	2,350	5.74	6.40
December	1,520	817	1,070	2.61	3.01
January	1,570	745	1,040	2.54	2.93
February	2,290	830	1,110	2.71	2.82
March	3,570	735	1,270	3.10	3.57
April	1,320	605	863	2.10	2.34
May	2,560	606	1,030	2.51	2.89
June	848	346	538	1.31	1.46
July	752	257	357	.871	1.00
August	490	170	238	.580	.67
September	536	156	267	.651	.73
The year	4,670	156	911	2.22	30.15

a Estimated.

HIWASSEE RIVER NEAR RELIANCE, TENN.

LOCATION.—Water-stage recorder just above notch between rock bluffs half a mile below mouth of Spring Creek and 3 miles below highway bridge at Reliance, Polk County. Zero of gage 718.66 feet above mean sea level.

DRAINAGE AREA.—1,220 square miles.

RECORDS AVAILABLE.—October, 1926, to September, 1930. Records obtained at Reliance, 3 miles upstream, from August, 1900, to December, 1913, February, 1919, to September, 1926.

EXTREMES.—Maximum discharge during year, 18,600 second-feet Nov. 15 (gage height, 13.3 feet); minimum, 286 second-feet Sept. 5 (gage height, 2.33 feet).
1926–1930: Maximum discharge, 24,600 second-feet Sept. 3, 1928 (gage height, 16.0 feet); minimum, that of Sept. 5, 1930.

REMARKS.—Records good except those for extremely low stages which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,080	1,690	3,080	2,830	2,710	2,360	2,710	1,880	1,930	1,080	a 856	350
2	3,540	1,980	3,470	2,770	2,710	2,360	2,830	1,830	1,830	1,120	a 870	330
3	3,020	6,980	4,180	3,140	2,950	2,250	3,750	1,780	1,780	1,040	702	310
4	2,530	10,200	3,400	2,950	4,940	2,200	4,030	2,140	1,740	1,040	722	303
5	2,470	5,260	3,210	2,710	6,800	2,140	3,470	2,080	1,690	975	683	400
6	2,530	3,890	3,140	2,650	4,780	2,420	4,030	1,980	2,080	975	670	716
7	2,360	3,280	3,020	2,530	4,030	10,900	3,750	2,360	2,250	912	631	557
8	2,200	3,890	3,080	2,590	3,610	9,580	3,340	2,710	1,980	a 975	670	475
9	1,980	3,610	3,020	2,420	3,280	5,750	3,020	2,830	1,740	a 940	754	418
10	1,880	3,210	2,830	2,420	3,080	4,480	2,890	2,710	1,640	a 842	1,040	670
11	1,830	3,020	2,830	2,250	2,890	4,180	2,830	2,530	1,600	a 1,080	975	1,080
12	1,740	4,180	2,710	2,300	2,830	3,890	2,710	2,950	1,510	a 975	670	926
13	1,640	10,200	2,830	2,140	3,140	3,470	2,590	2,530	1,460	a 940	650	884
14	1,690	14,800	2,650	2,200	4,030	3,210	2,590	4,630	1,460	a 1,230	624	870
15	1,640	17,000	2,710	2,950	3,340	3,080	2,590	5,100	1,510	a 1,460	657	683
16	1,550	12,000	2,650	3,610	3,140	2,890	2,420	3,540	1,380	1,270	650	593
17	1,550	12,900	2,710	2,890	2,830	2,890	2,360	3,080	1,550	1,190	683	650
18	1,550	11,800	2,950	2,770	2,830	3,210	2,420	3,080	1,640	1,510	650	670
19	1,510	7,550	3,470	2,590	2,650	6,800	2,420	7,740	1,460	1,420	624	940
20	1,460	5,920	3,340	2,420	2,590	5,920	2,360	6,260	1,340	1,120	618	2,030
21	1,510	4,940	3,020	2,650	2,590	4,630	2,200	4,330	1,300	1,010	618	1,420
22	2,250	4,480	2,950	3,890	2,530	4,030	2,140	3,540	1,380	975	696	1,010
23	2,140	4,330	3,080	4,330	2,590	3,610	2,140	3,080	1,340	1,160	870	828
24	1,740	4,030	2,950	3,610	2,770	3,400	2,140	2,950	1,270	1,460	735	761
25	1,640	3,610	2,770	3,140	2,590	3,610	2,080	2,650	1,340	1,300	638	761
26	1,550	4,030	2,770	2,890	a 2,530	3,610	2,140	2,470	1,340	975	593	1,010
27	1,510	4,480	2,830	2,830	a 2,420	3,340	2,080	a 2,360	1,230	919	575	1,230
28	1,550	4,030	3,890	2,830	a 2,360	3,080	1,930	2,140	1,230	926	557	1,230
29	1,600	3,610	4,330	2,950	-------	2,950	2,030	2,080	1,190	870	540	870
30	1,640	3,340	3,400	2,950	-------	2,950	1,880	2,140	1,080	821	431	728
31	1,640	-------	3,080	2,770	-------	2,830	-------	2,030	-------	742	386	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,540	1,460	1,950	1.60	1.84
November	17,000	1,690	6,140	5.03	5.61
December	4,330	2,650	3,110	2.55	2.94
January	4,330	2,140	2,840	2.33	2.69
February	6,800	2,360	3,200	2.62	2.73
March	10,900	2,140	3,940	3.23	3.72
April	4,030	1,880	2,660	2.18	2.43
May	7,740	1,780	3,020	2.48	2.86
June	2,250	1,080	1,540	1.26	1.41
July	1,510	742	1,070	.877	1.01
August	1,040	386	679	.557	.64
September	2,230	303	790	.648	.72
The year	17,000	303	2,570	2.11	28.60

a Gage height partly estimated.

HIWASSEE RIVER AT CHARLESTON, TENN.

LOCATION.—Water-stage recorder 250 feet above Southern Railway bridge at Charleston, Bradley County. Zero of gage 665.53 feet above mean sea level.

DRAINAGE AREA.—2,300 square miles.

RECORDS AVAILABLE.—January, 1899, to December, 1902; October, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 33,600 second-feet Nov. 15 (gage height, 21.2 feet); minimum, 750 second-feet Sept. 5 (gage height, 1.1 feet).

1920–1930: Maximum discharge, about 49,500 second-feet Jan. 22, 1922 (gage height, 28.2 feet); minimum, 260 second-feet Sept. 14, 1925 (gage height, 0.22 foot).

Maximum stage known, 34.0 feet Mar. 31, 1886.

REMARKS.—Records good below and fair above 20,000 second-feet. High-water flow affected by backwater from Tennessee River. Considerable regulation during low and medium stages caused by operation of power plants on Ocoee River.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,740	3,540	5,720	6,000	5,300	5,020	5,300	a 4,190	2,940	2,400	1,400	860
2	5,300	2,400	6,000	5,720	4,000	3,670	5,440	a 3,670	3,420	2,400	1,360	1,180
3	4,880	5,720	7,960	6,700	4,600	4,190	6,000	3,540	3,670	2,300	1,080	1,360
4	4,880	12,700	7,120	6,280	7,260	5,160	6,840	2,610	3,670	1,780	1,140	860
5	4,190	9,920	6,420	4,740	11,200	5,020	6,140	3,420	3,060	1,600	1,400	890
6	3,180	6,700	6,000	4,740	9,500	5,300	7,260	3,930	3,060	1,680	1,560	980
7	3,540	6,000	5,860	5,440	7,960	13,600	7,960	4,000	3,300	1,680	1,360	980
8	3,800	5,580	4,880	5,300	6,840	17,600	5,440	4,740	2,940	2,400	1,080	890
9	3,800	5,720	4,600	5,300	5,160	11,000	6,140	4,060	3,180	2,400	1,040	890
10	3,800	4,600	5,580	5,160	5,300	8,380	5,860	3,540	3,800	2,400	1,320	1,180
11	3,420	4,600	5,440	4,740	5,860	8,240	5,720	3,300	3,060	2,400	1,600	2,000
12	3,180	6,000	5,440	3,540	5,580	7,820	5,020	3,800	2,940	2,200	1,680	1,560
13	2,400	11,300	5,300	3,930	5,860	7,120	3,930	3,930	2,940	1,480	1,960	1,320
14	2,400	20,200	5,300	4,740	8,240	6,420	4,460	4,880	2,830	1,600	1,320	1,280
15	3,800	31,500	4,190	5,300	6,840	6,000	5,160	8,240	2,050	2,400	1,180	1,080
16	3,060	29,500	3,930	6,560	5,440	4,600	5,020	6,140	2,300	2,000	1,140	1,020
17	2,720	24,200	5,160	5,720	5,300	4,880	4,740	5,020	2,830	1,910	1,020	950
18	2,830	30,000	5,860	5,020	6,140	6,140	4,740	4,000	3,300	1,800	1,140	1,110
19	2,720	21,100	6,700	3,800	5,860	9,780	4,740	11,300	3,180	2,300	1,320	1,220
20	2,100	14,400	6,840	4,190	6,000	12,000	3,540	12,600	2,830	1,680	1,250	2,500
21	2,610	10,600	5,860	5,160	5,580	9,500	3,670	8,520	2,300	1,640	1,360	2,200
22	3,180	9,360	4,600	6,420	5,160	8,240	4,600	6,840	1,800	1,730	1,220	2,050
23	3,670	8,520	4,320	7,540	3,800	6,560	6,000	5,720	2,400	2,000	1,280	2,200
24	2,720	8,100	4,880	6,840	4,600	6,560	5,720	4,880	3,060	2,400	1,500	1,860
25	2,720	7,400	4,060	6,000	5,580	7,120	4,060	3,800	3,180	2,200	1,320	1,820
26	2,500	7,260	3,800	4,460	5,580	7,120	3,670	4,190	3,180	1,860	1,910	2,200
27	2,400	8,380	5,020	4,320	5,300	6,560	3,000	4,460	3,180	1,480	1,480	1,780
28	2,610	7,680	6,140	5,160	5,300	6,000	3,420	4,320	2,610	1,560	1,320	1,820
29	3,000	7,260	6,840	5,580	-------	5,440	4,320	4,320	1,730	1,560	1,080	1,480
30	3,000	6,840	6,280	5,580	-------	4,320	a 5,580	4,000	1,820	1,640	1,020	1,730
31	3,180	-------	6,560	5,580	-------	4,600	-------	3,800	-------	1,480	920	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,300	2,100	3,300	1.43	1.65
November	31,500	2,400	11,200	4.87	5.43
December	7,960	3,800	5,570	2.42	2.79
January	7,540	3,540	5,340	2.32	2.68
February	11,200	3,800	6,040	2.63	2.74
March	17,600	3,670	7,220	3.14	3.62
April	7,960	3,000	5,120	2.23	2.49
May	12,600	2,610	5,030	2.19	2.52
June	3,800	1,730	2,890	1.26	1.41
July	2,400	1,480	1,950	.848	.98
August	1,960	920	1,320	.574	.66
September	2,500	860	1,440	.626	.70
The year	31,500	860	4,690	2.04	27.67

a Interpolated.

VALLEY RIVER AT TOMOTLA, N. C.

LOCATION.—Chain gage on highway bridge at Tomotla, Cherokee County, half a mile upstream from Rodgers Creek.
DRAINAGE AREA.—106 square miles.
RECORDS AVAILABLE.—June, 1904, to December, 1909; January, 1914, to April, 1917; October, 1918, to September, 1930.
EXTREMES.—Maximum discharge during year, 2,340 second-feet Nov. 15 (gage height, 7.30 feet); minimum, 29 second-feet Sept 6–9 (gage height, 0.74 foot). 1904–1909, 1914–1917, 1918–1930: Maximum discharge (estimated), 7,780 second-feet Nov. 19, 1906 (gage height, 17.3 feet); minimum, 12 second-feet several times in August and September, 1925 (gage height, 0.52 foot).
REMARKS.—Records good except those estimated, which are poor.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	207	116	280	294	254	218	280	154	164	67	48	32
2	230	125	379	267	280	218	336	154	154	72	45	32
3	207	703	394	308	280	207	394	185	154	77	43	32
4	196	848	322	267	322	196	379	154	144	72	40	32
5	185	590	294	254	590	196	336	154	164	67	39	30
6	174	456	294	242	456	207	364	144	185	67	37	29
7	174	456	294	242	394	1,400	322	174	154	65	37	29
8	154	350	280	230	350	827	308	280	134	62	37	29
9	134	308	254	218	322	590	280	242	134	56	40	47
10	125	294	254	207	294	488	267	207	123	74	40	58
11	119	322	242	196	280	556	267	242	119	70	39	56
12	116	522	230	196	254	522	254	218	116	67	37	55
13	112	1,360	218	196	322	456	242	196	114	125	37	51
14	110	1,690	218	196	336	364	230	856	110	134	36	50
15	108	2,170	218	424	308	308	230	456	108	108	42	55
16	104	1,580	218	379	267	294	230	322	119	110	43	56
17	101	1,670	218	322	254	294	218	294	117	196	39	55
18	99	1,330	218	267	254	456	218	364	114	267	34	50
19	104	984	218	254	242	1,330	207	1,060	108	185	34	a 170
20	104	660	207	230	242	804	196	660	104	134	34	a 110
21	144	456	207	280	230	624	196	456	102	97	36	a 75
22	174	522	207	624	218	522	185	379	99	79	39	a 50
23	144	456	207	488	218	424	174	322	99	79	37	a 43
24	123	394	207	394	207	379	174	280	97	70	34	47
25	116	364	207	350	207	456	174	242	154	67	34	47
26	114	394	196	308	230	379	174	230	134	67	34	65
27	112	424	230	294	230	350	164	207	116	63	34	125
28	112	379	424	308	218	336	164	196	92	60	34	84
29	117	322	379	280	------	322	164	196	70	58	34	58
30	125	294	336	267	------	308	164	185	67	55	32	45
31	121	------	322	267	------	294	------	174	------	51	32	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	230	99	138	1.30	1.50
November	2,170	116	685	6.46	7.21
December	424	196	264	2.49	2.87
January	624	196	292	2.75	3.17
February	590	207	288	2.72	2.83
March	1,400	196	462	4.36	5.03
April	394	164	243	2.29	2.56
May	1,060	144	303	2.86	3.30
June	185	67	122	1.15	1.28
July	267	51	91.0	.858	.99
August	48	32	37.5	.354	.41
September	170	29	56.6	.534	.60
The year	2,170	29	248	2.34	31.75

a Estimated.

NOTTELY RIVER NEAR RANGER, N. C.

LOCATION.—Staff gage 200 feet upstream from highway bridge, half a mile downstream from Ranger, Cherokee County, and 7½ miles southwest of Murphy.

DRAINAGE AREA.—272 square miles.

RECORDS AVAILABLE.—February, 1901, to December, 1905; January, 1914, to April, 1917; October, 1918, to September, 1930.

EXTREMES.—Maximum discharge during year, 2,660 second-feet Nov. 16, Mar. 7 (gage height, 8.00 feet); minimum, 98 second-feet Sept. 9–11 (gage height, 1.48 feet).

1901–1905, 1914–1917, 1918–1930: Maximum stage, 21.0 feet Feb. 28, 1902 (discharge not determined); minimum discharge, 41 second-feet Sept. 6, 7, 23, 24, 1925 (gage height, 1.80 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	786	396	712	606	640	444	508	412	572	263	192	180
2	606	444	940	572	572	396	540	476	540	253	168	171
3	476	268	786	572	712	348	572	540	540	237	207	159
4	284	508	712	540	640	316	640	572	508	222	284	153
5	364	572	572	508	606	300	712	712	476	222	268	141
6	252	940	508	508	572	748	786	824	476	207	252	126
7	186	1,020	444	508	540	1,960	712	940	444	207	252	115
8	650	786	640	476	508	1,310	676	1,020	444	193	284	107
9	444	712	606	444	572	786	640	1,140	412	237	268	112
10	396	824	572	444	572	712	606	1,300	412	263	252	110
11	348	940	508	412	444	786	572	1,180	396	332	252	101
12	380	1,220	572	380	412	712	572	940	380	391	237	118
13	380	1,500	640	476	396	676	540	712	364	444	222	508
14	364	1,740	980	572	380	640	508	824	348	444	222	540
15	348	2,190	786	540	348	606	508	940	332	364	207	572
16	316	2,610	640	476	676	606	476	1,020	316	222	207	540
17	268	1,780	712	444	640	572	476	1,140	300	263	207	540
18	207	1,420	508	380	640	606	444	1,340	348	364	316	508
19	153	940	396	508	606	640	412	2,010	396	444	412	444
20	268	786	332	572	572	640	712	1,700	380	380	348	412
21	332	606	268	640	572	676	676	1,420	348	364	284	380
22	444	508	300	572	540	676	640	1,260	348	348	252	364
23	396	444	412	508	540	676	572	940	364	332	252	348
24	380	1,060	540	444	540	640	572	862	364	315	237	332
25	364	862	572	380	508	640	540	824	364	300	222	316
26	348	824	676	572	508	640	508	786	348	284	222	300
27	396	712	786	640	476	606	508	712	332	263	207	268
28	332	676	900	712	476	606	476	676	316	263	207	252
29	284	572	1,020	712	-------	572	444	640	300	253	192	237
30	222	508	1,100	676	-------	572	412	606	284	237	192	237
31	177	-------	1,460	640	-------	540	-------	572	-------	222	186	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	786	153	360	1.32	1.52
November	2,610	268	946	3.48	3.88
December	1,460	268	665	2.44	2.81
January	712	380	530	1.95	2.25
February	712	348	543	2.00	2.08
March	1,960	300	666	2.45	2.82
April	786	412	565	2.08	2.32
May	2,010	412	937	3.44	3.97
June	572	284	392	1.44	1.61
July	444	192	296	1.09	1.26
August	412	168	242	.89	1.03
September	572	101	290	1.07	1.19
The year	2,610	101	536	1.97	26.74

TOCCOA RIVER NEAR DIAL, GA.

LOCATION.—Water-stage recorder half a mile above Shallow Ford, 1 mile above Stanley Creek, and 4 miles northwest of Dial, Fannin County. Zero of gage 1,781.13 feet above mean sea level.

DRAINAGE AREA.—175 square miles.

RECORDS AVAILABLE.—January, 1913, to September, 1930. May, 1907, to June, 1908, at Butts Bridge, 2 miles above Dial.

EXTREMES.—Maximum discharge during year, 3,660 second-feet Mar. 7 (gage height, 5.61 feet); minimum, 130 second-feet Sept. 4 (gage height, 0.67 foot).

1913–1930: Maximum discharge, about 9,200 second-feet July 9, 1916 (gage height, 10.0 feet); minimum, 60 second-feet Sept. 6, 1925 (gage height, 0.40 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	673	437	710	542	513	452	534	422	379	276	194	140
2	573	628	853	586	534	449	610	418	372	274	201	134
3	521	2,220	738	605	591	437	722	464	362	262	206	132
4	500	1,320	700	529	1,280	433	638	500	359	256	186	130
5	496	793	683	517	1,020	433	610	430	452	248	184	167
6	492	653	668	513	766	710	643	418	577	246	181	167
7	464	663	683	508	688	2,620	591	433	472	246	176	198
8	449	673	683	504	638	1,200	564	568	393	254	163	176
9	422	605	643	492	605	886	546	673	372	237	186	194
10	411	568	624	488	591	766	534	521	359	232	194	201
11	400	766	614	480	564	738	525	546	352	237	201	227
12	397	1,320	605	480	555	668	517	500	345	232	167	235
13	393	1,600	595	480	577	633	513	476	345	227	163	198
14	393	2,220	582	591	582	610	508	988	352	229	163	174
15	386	3,300	582	653	542	624	500	628	342	229	174	167
16	376	1,940	577	542	525	610	492	551	342	240	167	174
17	376	2,120	577	513	513	638	484	534	430	279	163	188
18	369	1,810	673	508	508	738	496	582	349	304	160	170
19	352	1,440	688	488	496	1,090	484	722	329	279	160	297
20	352	1,240	600	484	488	823	472	586	319	251	165	254
21	372	1,130	568	529	480	738	468	529	329	232	201	235
22	404	1,090	591	648	476	710	464	492	376	229	224	188
23	366	1,020	573	568	488	673	452	476	319	268	176	172
24	355	918	551	529	484	648	452	460	307	294	170	219
25	352	886	542	517	472	683	445	441	304	243	165	194
26	342	1,060	534	500	464	628	437	430	300	227	156	310
27	342	918	560	500	452	591	437	418	297	224	151	243
28	345	853	668	591	449	577	437	408	282	224	149	191
29	352	793	610	555	------	560	437	404	274	214	147	176
30	355	738	577	542	------	551	430	400	274	211	140	176
31	366	------	560	525	------	542	------	383	------	206	140	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	673	342	411	2.35	2.71
November	3,300	437	1,190	6.80	7.59
December	853	534	626	3.58	4.13
January	653	480	532	3.04	3.50
February	1,280	449	584	3.34	3.48
March	2,620	433	724	4.14	4.77
April	722	430	515	2.94	3.28
May	988	383	510	2.91	3.36
June	577	274	355	2.03	2.26
July	304	206	245	1.40	1.61
August	224	140	173	.99	1.14
September	310	130	194	1.11	1.24
The year	3,300	130	504	2.88	39.07

TOCCOA RIVER NEAR MORGANTON, GA.

LOCATION.—Water-stage recorder 1⅛ miles below highway bridge on Blue Ridge-Morganton Road, 1¾ miles below mouth of Star Creek, and 2 miles west of Morganton, Fannin County. Zero of gage 1,539.34 feet above mean sea level.

DRAINAGE AREA.—232 square miles.

RECORDS AVAILABLE.—November, 1898, to March, 1903; April, 1913, to September, 1930.

EXTREMES.—Maximum discharge during year, 3,330 second-feet Nov. 15 (gage height, 7.4 feet); minimum, 175 second-feet Aug. 30 to Sept. 3 (gage height, 1.62 feet).

1913–1930: Maximum discharge, about 13,900 second-feet July 9, 1916 (gage height, 13.0 feet); minimum, 73 second-feet Sept. 10, 24, 25, 1925.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	818	486	885	660	615	530	682	522	454	333	228	175
2	728	660	1,100	660	638	530	750	510	454	312	222	175
3	660	2,060	980	705	705	510	930	522	430	302	245	175
4	615	1,680	885	615	1,440	506	840	638	414	290	222	178
5	660	980	862	615	1,280	494	772	530	474	284	220	198
6	660	818	840	615	955	682	818	498	728	278	218	190
7	592	795	840	615	840	2,880	750	518	660	284	220	228
8	570	885	862	615	772	1,800	728	682	474	299	210	195
9	530	750	818	592	728	1,100	705	840	450	278	225	210
10	518	705	818	570	705	955	682	638	422	269	218	245
11	494	885	795	570	660	955	660	638	406	272	218	232
12	486	1,340	750	550	660	862	660	615	396	272	208	290
13	486	1,740	728	550	682	795	638	570	392	287	202	240
14	486	2,390	728	570	728	772	638	1,080	403	272	202	208
15	470	3,180	705	885	638	750	638	795	382	272	215	195
16	462	2,740	705	705	615	728	615	682	382	278	215	205
17	450	2,260	705	638	615	772	615	638	478	275	208	222
18	438	2,190	795	615	592	862	615	728	396	396	210	202
19	438	1,680	885	592	592	1,340	615	1,060	368	330	210	358
20	434	1,440	750	592	570	1,060	570	795	347	287	210	354
21	446	1,310	705	638	570	930	570	660	350	266	232	281
22	510	1,230	728	795	550	885	570	615	418	254	287	240
23	458	1,200	750	705	570	840	570	570	372	322	220	220
24	434	1,100	705	638	570	818	550	550	354	392	208	245
25	414	1,060	705	615	550	862	550	518	358	281	200	232
26	403	1,260	705	570	550	818	530	506	354	254	192	358
27	396	1,130	728	570	530	750	522	502	347	251	192	305
28	403	1,060	862	682	530	728	530	490	330	248	188	232
29	414	980	795	660	-------	728	550	490	308	245	182	218
30	414	930	750	660	-------	705	530	486	333	240	175	218
31	422	-------	728	638	-------	682	-------	466	-------	240	175	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	818	396	507	2.19	2.52
November	3,180	486	1,360	5.86	6.54
December	1,100	705	793	3.42	3.94
January	885	550	635	2.74	3.16
February	1,440	530	695	3.00	3.12
March	2,880	494	891	3.84	4.43
April	930	522	646	2.78	3.10
May	1,080	466	624	2.69	3.10
June	728	308	414	1.78	1.99
July	396	240	286	1.23	1.42
August	287	175	212	.914	1.05
September	358	175	234	1.01	1.13
The year	3,180	175	607	2.62	35.50

OCOEE RIVER AT McHARGE, TENN.

LOCATION.—Staff gage at highway bridge half a mile downstream from McHarge railroad siding, Polk County, half a mile below Potato Creek, and 2½ miles downstream from Copperhill, Tenn. Zero of gage 1,430.46 feet above mean sea level.

DRAINAGE AREA.—451 square miles.

RECORDS AVAILABLE.—May, 1917, to September, 1930.

EXTREMES.—Maximum discharge during year, 5,930 second-feet Mar. 7 (gage height, 5.88 feet); minimum, 243 second-feet Sept. 4 (gage height, 0.34 foot). 1917–1930: Maximum discharge, 13,100 second-feet Jan. 21, 1922 (gage height, 11.4 feet); minimum, 118 second-feet Sept. 22, 23, 1925 (gage height, 0.07 foot).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,270	730	1,440	1,190	1,110	1,030	1,190	918	880	692	445	270
2	1,190	880	1,880	1,190	1,190	1,030	1,360	918	842	655	419	252
3	1,030	3,620	1,620	1,360	1,270	992	1,800	918	842	585	445	252
4	992	3,260	1,440	1,190	2,470	955	1,620	1,110	805	585	432	805
5	1,110	1,620	1,440	1,110	2,370	955	1,440	955	842	550	426	393
6	1,030	1,360	1,360	1,110	1,800	1,110	1,620	918	1,440	550	406	310
7	955	1,270	1,360	1,110	1,520	5,540	1,440	992	1,190	585	386	356
8	918	1,620	1,440	1,110	1,440	3,140	1,360	1,190	918	585	380	332
9	880	1,270	1,360	1,110	1,360	1,980	1,270	1,440	880	515	445	368
10	842	1,190	1,270	1,110	1,270	1,700	1,270	1,190	842	480	393	426
11	805	1,360	1,270	1,030	1,270	1,700	1,190	1,190	805	445	412	412
12	805	2,170	1,270	1,030	1,190	1,520	1,190	1,110	805	445	374	620
13	805	3,740	1,270	1,030	1,440	1,440	1,190	1,030	768	515	356	445
14	768	5,150	1,270	1,030	1,440	1,360	1,110	1,980	805	515	362	374
15	768	5,540	1,190	1,700	1,270	1,360	1,110	1,700	768	515	393	332
16	730	4,370	1,190	1,270	1,270	1,270	1,110	1,190	768	480	386	344
17	730	4,240	1,190	1,190	1,190	1,270	1,110	1,110	880	2,080	368	350
18	730	3,740	1,270	1,110	1,190	1,440	1,110	1,620	805	805	356	320
19	730	2,800	1,440	1,110	1,110	2,470	1,110	2,470	730	692	356	1,270
20	692	2,370	1,270	1,110	1,110	1,800	1,030	1,620	730	620	332	768
21	730	2,170	1,190	1,190	1,110	1,620	1,030	1,360	805	585	419	585
22	842	1,980	1,270	1,520	1,030	1,520	1,030	1,270	842	585	585	515
23	768	1,980	1,270	1,360	1,110	1,440	1,030	1,190	730	585	412	432
24	730	1,800	1,190	1,190	1,110	1,440	992	1,110	692	880	380	412
25	692	1,700	1,190	1,190	1,030	1,620	992	1,030	692	692	356	480
26	692	2,080	1,110	1,110	1,030	1,440	992	992	655	620	326	620
27	655	1,880	1,190	1,110	1,030	1,360	955	992	655	585	310	655
28	692	1,700	1,440	1,190	1,030	1,270	955	955	620	550	305	480
29	730	1,620	1,360	1,190	-------	1,270	992	955	620	515	290	412
30	692	1,520	1,270	1,190	-------	1,270	955	955	585	515	270	393
31	692	-------	1,190	1,190	-------	1,190	-------	880	-------	480	275	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,270	655	829	1.84	2.12
November	5,540	730	2,360	5.23	5.84
December	1,880	1,110	1,320	2.93	3.38
January	1,700	1,030	1,180	2.62	3.02
February	2,470	1,030	1,310	2.90	3.02
March	5,540	955	1,600	3.55	4.09
April	1,800	955	1,190	2.64	2.94
May	2,470	880	1,200	2.66	3.07
June	1,440	585	808	1.79	2.00
July	2,080	445	629	1.39	1.60
August	585	270	381	.845	.97
September	1,270	252	466	1.03	1.15
The year	5,540	252	1,100	2.44	33.20

OCOEE RIVER AT EMF, TENN.

LOCATION.—Water-stage recorder 700 feet below Tennessee Electric Power Co.'s plant No. 2, known as "Caney Creek Plant," half a mile upstream from Emf, Polk County, and 1½ miles downstream from mouth of Goforth Creek. Zero of gage 830.00 feet above mean sea level.

DRAINAGE AREA.—530 square miles.

RECORDS AVAILABLE.—January, 1913, to September, 1930.

EXTREMES.—Maximum discharge during year, 6,370 second-feet Nov. 14 (gage height, 7.75 feet); minimum, 24 second-feet Sept. 14 (gage height, 2.39 feet). 1913–1930: Maximum discharge, about 21,400 second-feet July 10, 1916 (gage height, 13.7 feet); minimum, that of Sept. 14, 1930.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,220	786	1,510	1,280	1,220	1,120	1,310	1,020	910	681	424	336
2	1,270	1,190	1,910	1,290	1,260	1,110	1,460	1,000	862	625	402	326
3	1,110	3,790	1,910	1,510	1,370	1,080	2,030	1,030	795	569	386	320
4	1,050	3,170	1,620	1,330	2,470	1,080	1,910	1,170	824	555	419	342
5	1,070	1,850	1,510	1,290	2,540	1,050	1,680	1,090	852	548	402	490
6	1,140	1,460	1,510	1,270	1,910	1,400	1,790	1,050	1,200	542	392	392
7	795	1,340	1,510	1,230	1,680	5,470	1,680	1,020	1,270	542	392	358
8	990	1,680	1,560	1,210	1,510	3,400	1,510	1,160	990	583	364	397
9	940	1,460	1,460	1,190	1,460	2,280	1,460	1,320	842	542	424	375
10	910	1,290	1,400	1,160	1,400	1,970	1,390	1,260	824	510	442	460
11	862	1,340	1,380	1,140	1,340	1,850	1,380	1,230	795	496	414	490
12	833	1,970	1,360	1,120	1,340	1,730	1,340	1,190	759	460	375	562
13	852	3,790	1,330	1,120	1,460	1,620	1,290	1,090	732	466	364	522
14	824	5,830	1,310	1,120	1,790	1,510	1,290	1,790	768	536	358	348
15	795	5,650	1,300	1,620	1,510	1,460	1,270	1,560	768	510	380	392
16	777	4,440	1,290	1,510	1,460	1,460	1,240	1,290	732	510	392	392
17	768	4,950	1,290	1,290	1,340	1,460	1,220	1,210	814	750	380	386
18	750	4,270	1,400	1,240	1,300	1,560	1,220	1,280	824	665	375	380
19	741	3,100	1,620	1,190	1,270	2,670	1,220	2,810	714	681	380	1,180
20	750	2,540	1,460	1,150	1,240	2,150	1,070	1,850	697	583	364	910
21	777	2,280	1,320	1,240	1,210	1,850	1,160	1,400	705	522	419	625
22	940	2,150	1,370	1,680	1,180	1,730	1,140	1,260	824	496	576	522
23	862	2,150	1,400	1,560	1,190	1,620	1,120	1,190	750	510	466	448
24	777	1,970	1,290	1,390	1,240	1,560	1,110	1,150	657	814	408	448
25	750	1,850	1,260	1,300	1,200	1,680	1,090	1,120	649	597	386	490
26	732	2,150	1,270	1,300	1,150	1,620	1,070	1,050	633	510	419	555
27	723	2,030	1,330	1,210	1,140	1,510	1,040	1,000	657	529	348	759
28	723	1,910	1,620	1,250	1,110	1,460	1,060	970	618	496	336	522
29	795	1,790	1,560	1,330	-------	1,400	1,090	970	597	478	331	442
30	777	1,620	1,460	1,310	-------	1,460	1,040	1,040	597	448	320	414
31	768	-------	1,330	1,240	-------	1,390	-------	910	-------	430	331	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,270	723	873	1.65	1.90
November	5,830	786	2,530	4.77	5.32
December	1,910	1,260	1,450	2.74	3.16
January	1,680	1,120	1,290	2.43	2.80
February	2,540	1,110	1,440	2.72	2.83
March	5,470	1,050	1,760	3.32	3.83
April	2,030	1,040	1,320	2.49	2.78
May	2,810	910	1,240	2.34	2.70
June	1,270	597	789	1.49	1.66
July	814	430	554	1.05	1.21
August	576	320	393	.742	.86
September	1,180	320	486	.917	1.02
The year	5,830	320	1,170	2.21	30.07

OCOEE RIVER AT PARKSVILLE, TENN.

LOCATION.—Water-stage recorder 1,500 feet downstream from dam and power plant No. 1 of Tennessee Electric Power Co. at Parksville, Polk County. Zero of gage 717.58 feet above mean sea level.

DRAINAGE AREA.—600 square miles.

RECORDS AVAILABLE.—January, 1911, to September, 1916; March, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 8,600 second-feet Nov. 15 (gage height, 10.52 feet); minimum, 17 second-feet Nov. 9 (gage height, 2.50 feet). 1911–1916, 1921–1930: Maximum discharge, 17,000 second-feet July 10, 1916 (gage height, 15.75 feet); minimum mean daily discharge, 6 second-feet Oct. 28, 1925 (gage height, 2.40 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,400	900	e1,050	1,680	1,130	1,020	1,780	1,771	125	925	315	292
2	1,170	304	e2,250	1,820	178	165	1,880	1,440	1,520	862	222	912
3	1,570	223	2,250	1,930	1,930	2,050	1,720	552	1,570	860	138	180
4	1,730	1,730	2,120	1,210	2,000	2,070	1,790	125	1,270	85	422	215
5	858	1,650	2,060	128	1,980	2,170	1,480	1,320	875	730	580	162
6	196	1,900	1,970	1,840	1,920	1,990	2,050	1,360	662	100	662	145
7	1,160	1,690	1,500	1,780	1,980	2,180	2,410	1,300	408	938	398	105
8	1,420	1,230	170	1,920	1,160	1,660	1,880	1,290	295	1,200	140	175
9	1,570	1,220	1,890	1,850	182	338	1,980	498	1,670	1,220	350	212
10	1,370	300	1,850	1,830	1,890	2,080	1,980	162	1,360	1,120	220	275
11	1,210	1,870	1,890	1,000	1,900	2,180	1,790	121	1,080	1,240	448	296
12	646	2,180	1,920	150	1,860	2,040	958	578	1,050	470	930	132
13	99	2,410	2,050	1,770	1,940	1,960	205	678	1,150	204	972	167
14	1,620	3,110	1,430	1,830	1,990	2,040	1,610	942	638	625	295	113
15	1,540	8,180	190	1,890	848	1,090	1,840	1,440	88	635	400	220
16	856	6,080	1,900	1,870	159	388	1,820	1,410	770	508	192	136
17	973	7,340	1,960	1,790	2,120	2,040	1,430	838	858	440	200	352
18	915	5,660	1,860	1,040	2,060	1,910	1,820	252	1,040	488	388	266
19	614	3,530	2,040	215	2,320	2,180	1,120	1,520	1,080	262	338	348
20	634	2,340	2,000	1,890	2,070	2,120	105	1,530	1,040	138	485	342
21	848	2,350	1,570	1,920	2,060	2,150	1,730	1,630	282	585	462	170
22	1,230	2,320	132	1,990	1,010	1,570	2,030	1,580	190	605	272	1,270
23	708	1,860	1,530	1,920	204	1,670	3,240	1,510	1,340	502	568	850
24	674	2,450	895	1,970	1,890	1,780	2,440	790	1,380	435	305	1,040
25	713	2,130	104	1,170	2,010	2,460	1,470	125	1,240	462	760	762
26	992	2,180	1,240	170	2,050	2,000	975	1,360	1,500	408	990	739
27	504	2,290	1,650	1,620	1,930	1,880	155	1,530	1,330	295	642	260
28	1,140	1,590	1,140	1,960	2,160	1,760	1,740	1,640	549	392	400	118
29	1,380	2,540	126	1,980	-------	858	2,120	1,640	135	448	280	642
30	1,320	1,660	2,000	2,040	-------	135	2,480	1,090	941	585	220	925
31	1,460	-------	1,830	2,030	-------	1,660	-------	1,160	-------	432	120	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,730	99	1,050	1.75	2.02
November	8,180	223	2,510	4.18	4.66
December	2,250	104	1,500	2.50	2.88
January	2,040	128	1,550	2.58	2.97
February	2,320	159	1,600	2.67	2.78
March	2,460	135	1,660	2.77	3.19
April	3,240	105	1,670	2.78	3.10
May	1,770	121	1,070	1.78	2.05
June	1,670	88	911	1.52	1.70
July	1,240	85	587	.978	1.13
August	990	120	423	.705	.81
September	1,270	105	394	.657	.73
The year	8,180	85	1,240	2.07	28.02

e Partly estimated.

CHICKAMAUGA CREEK NEAR CHICKAMAUGA, TENN.

LOCATION.—Staff gage one-fourth mile above bridge on Chattanooga-Cleveland highway 1½ miles south of Chickamauga, Hamilton County, and 12 miles above confluence with Tennessee River.

DRAINAGE AREA.—426 square miles.

RECORDS AVAILABLE.—October, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 15,100 second-feet Nov. 15 (gage height, 15.90 feet); minimum, 108 second-feet Aug. 28, 30, 31, Sept. 1, 5 (gage height, 0.65 foot).

1928–1930: Maximum discharge, 15,400 second-feet Mar. 15, 1929 (gage height, 15.95 feet); minimum, same as given above.

REMARKS.—Records good. Possibly slight regulation caused by operation of small gristmills upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	212	240	644	866	607	498	607	302	302	338	150	108
2	208	1,440	940	718	644	462	570	302	285	312	135	135
3	201	2,750	978	1,130	607	498	1,710	320	285	295	120	120
4	212	1,750	940	940	2,660	426	1,710	355	268	238	120	115
5	250	829	792	792	2,660	408	978	338	268	250	135	108
6	285	644	792	681	1,360	390	2,320	302	355	232	120	112
7	268	498	755	644	1,130	5,040	1,870	268	320	215	120	135
8	243	570	755	644	866	5,570	1,130	320	302	215	135	320
9	215	570	718	607	792	3,060	866	320	285	198	120	426
10	201	570	644	570	718	1,630	792	320	268	198	135	355
11	190	570	607	534	681	1,170	718	320	268	190	215	285
12	198	570	570	498	644	1,050	644	302	250	194	e 174	215
13	162	3,620	534	462	2,320	681	644	320	243	198	132	215
14	174	6,210	534	498	1,990	570	570	302	236	198	135	198
15	180	14,800	498	829	1,210	498	570	285	232	215	126	180
16	180	10,300	498	681	940	498	534	268	232	198	138	150
17	180	7,350	644	607	866	607	498	268	1,020	180	144	150
18	180	9,570	1,280	570	755	1,240	498	285	940	180	138	135
19	174	4,520	978	570	718	1,790	462	3,250	320	177	153	150
20	180	2,880	866	570	681	1,710	426	2,490	285	174	150	755
21	268	1,280	755	1,240	644	1,020	390	866	285	171	144	498
22	498	1,320	718	1,440	607	903	355	792	268	174	285	285
23	462	1,360	644	1,020	607	792	338	718	268	174	215	250
24	285	1,050	607	866	644	718	320	644	250	215	180	215
25	246	607	607	644	607	978	320	570	232	355	150	250
26	222	1,480	644	681	570	829	320	498	218	320	120	390
27	201	1,360	1,130	681	570	718	320	426	208	268	120	355
28	204	1,090	2,070	644	534	644	320	372	198	180	108	302
29	208	866	1,630	644	-------	607	320	355	190	150	115	250
30	215	607	1,090	644	-------	570	320	338	180	150	108	198
31	246	-------	940	607	-------	570	-------	320	-------	144	108	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	498	162	231	0.542	0.62
November	14,800	240	2,710	6.36	7.10
December	2,070	498	832	1.95	2.25
January	1,440	462	727	1.71	1.97
February	2,660	534	987	2.32	2.42
March	5,570	390	1,170	2.75	3.17
April	2,320	320	715	1.68	1.87
May	3,250	268	553	1.30	1.50
June	1,020	180	309	.725	.81
July	355	144	216	.507	.58
August	285	108	143	.336	.39
September	755	108	245	.575	.64
The year	14,800	108	731	1.72	23.32

• Estimated.

SEQUATCHIE RIVER NEAR WHITWELL, TENN.

LOCATION.—Staff gage at highway bridge 2 miles east of Whitwell, Marion County. Records prior to Sept. 16, 1927, referred to a gage whose zero was 0.03 foot above zero of present gage, which is 632.30 feet above mean sea level.

DRAINAGE AREA.—389 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 8,330 second-feet Nov. 15 (gage height, 14.13 feet); minimum, 39 second-feet Sept. 4–6 (gage height, 0.97 foot).

1920–1930: Maximum discharge, 13,000 second-feet Mar. 24, 1929 (gage height, from high-water mark, 16.0 feet); minimum, 19 second-feet Sept. 6–21, 27, 28, 1925 (gage height, 0.73 foot).

REMARKS.—Records fair. Slight regulation caused by operation of two small mills above station.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	304	289	763	905	461	978	763	230	187	80	88	44
2	244	626	763	798	429	905	694	230	184	78	71	42
3	215	5,050	798	1,520	429	798	763	215	174	77	67	40
4	187	3,960	728	1,520	1,020	728	1,130	244	163	85	63	39
5	215	2,450	660	1,280	3,320	694	1,200	259	160	80	60	39
6	215	1,440	626	1,050	2,450	626	1,090	335	155	75	56	39
7	215	1,020	626	941	1,680	3,410	941	274	171	72	54	40
8	201	833	626	833	1,280	5,900	833	244	160	80	46	42
9	182	728	626	763	1,020	3,900	728	244	155	74	46	43
10	160	592	626	728	869	2,530	660	259	147	85	46	54
11	155	559	592	660	763	2,240	592	259	137	86	46	66
12	150	526	592	626	694	2,240	559	274	127	80	46	54
13	139	592	559	592	660	1,920	526	259	120	77	46	60
14	134	3,360	526	559	4,310	1,520	493	320	116	77	45	129
15	125	8,330	493	559	3,540	1,240	493	382	113	75	61	63
16	120	7,180	493	526	2,410	1,050	461	350	109	72	49	58
17	116	4,390	461	493	1,720	905	429	320	107	71	51	66
18	111	7,640	592	461	1,360	905	413	335	103	70	62	63
19	107	5,200	798	429	1,130	2,700	382	526	101	70	59	59
20	103	3,320	905	397	941	3,320	366	905	99	68	50	59
21	111	2,000	869	397	833	2,530	335	728	97	68	51	62
22	274	1,520	798	429	763	1,800	320	559	95	67	50	54
23	335	1,320	763	413	694	1,360	320	461	93	66	50	50
24	304	1,130	694	413	1,520	1,130	304	429	93	97	49	45
25	274	1,020	626	429	1,840	1,200	289	626	91	70	48	41
26	244	1,020	592	429	1,440	1,720	274	397	89	89	48	44
27	215	1,320	592	413	1,200	1,680	259	335	88	80	47	304
28	187	1,200	559	429	1,050	1,400	289	289	85	71	46	105
29	187	1,090	798	461	------	1,200	244	259	83	70	46	71
30	187	941	1,240	461	------	1,050	244	230	80	67	45	60
31	230	------	1,050	461	------	905	------	201	------	152	45	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	335	103	192	0.494	0.57
November	8,330	289	2,350	6.04	6.74
December	1,240	461	691	1.78	2.05
January	1,520	397	657	1.69	1.95
February	4,310	429	1,420	3.65	3.80
March	5,900	626	1,760	4.52	5.21
April	1,200	244	545	1.40	1.56
May	905	201	354	.910	1.05
June	187	80	123	.316	.35
July	152	66	78.4	.202	.23
August	88	45	52.8	.136	.16
September	304	39	64.5	.166	.19
The year	8,330	39	684	1.76	23.86

FLINT RIVER NEAR CHASE, ALA.

LOCATION.—Staff gage at Nashville, Chattanooga & St. Louis Railway bridge 5 miles northeast of Chase, Madison County. Zero of gage 639.87 feet above mean sea level.

DRAINAGE AREA.—353 square miles.

RECORDS AVAILABLE.—May to September, 1930.

EXTREMES.—Maximum discharge during period, 1,700 second-feet May 24 (gage height, 3.8 feet); minimum, 83 second-feet Sept. 4, 10, 16 (gage height, 1.20 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1930

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1		202	113	110	89	16	191	149	110	151	87
2		181	115	105	87	17	188	154	105	151	97
3		178	115	110	87	18	202	149	110	157	95
4		169	110	105	85	19	932	140	115	149	89
5		154	108	105	87	20	540	138	105	110	140
6		1,120	110	105	87	21	334	132	110	110	110
7		388	105	103	87	22	249	130	113	105	108
8		253	110	105	89	23	309	132	108	105	95
9		212	101	93	87	24	1,360	127	108	93	99
10		178	108	91	83	25	572	125	108	93	143
11		166	110	89	95	26	334	122	110	89	117
12		151	105	93	103	27	276	115	105	93	105
13		151	110	89	99	28	236	110	110	89	101
14		149	105	99	103	29	219	110	105	89	113
15		140	108	154	103	30	223	110	103	87	97
						31	216		105	87	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
May 16–31	1,360	188	398	1.13	0.67
June	1,120	110	191	.541	.60
July	115	101	108	.306	.35
August	157	87	107	.303	.35
September	143	83	98.9	.280	.31

HUNTSVILLE SPRING AT HUNTSVILLE, ALA.

LOCATION.—Water-stage recorder just above weir at city pumping plant in Huntsville, Madison County.

RECORDS AVAILABLE.—November, 1928, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 38 second-feet Nov. 16–18, Apr. 14 (gage height, 2.57 feet); minimum, 7.9 second-feet Sept. 16–18 (gage height, 2.21 feet).

1928–1930: Maximum mean daily discharge, 45 second-feet Mar. 23, 24, 1929 (gage height, 2.62 feet); minimum, that of Sept. 16–18, 1930.

REMARKS.—Records fair. Water supply for city of Huntsville diverted just above gage; this flow is included in discharge tables.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	25	35	35	29	26	36	27	25	17	11	10
2	18	25	35	35	29	26	36	27	25	17	11	10
3	18	28	35	35	29	28	36	27	24	17	11	10
4	18	28	35	35	30	29	36	25	24	16	11	10
5	18	28	35	35	30	29	36	25	24	16	11	10
6	19	28	35	35	29	30	36	23	24	14	10	9.7
7	19	28	35	35	29	35	37	23	24	14	11	9.7
8	19	27	34	35	29	36	36	24	24	14	10	10
9	19	26	34	35	29	35	36	24	22	14	10	10
10	19	26	34	35	29	35	37	24	22	13	11	10
11	19	26	34	35	30	35	37	24	22	14	9.7	10
12	19	25	34	35	30	34	36	24	22	14	9.7	9.7
13	19	28	34	35	31	34	37	25	22	14	9.7	9.1
14	19	31	34	34	30	34	38	25	22	14	9.7	8.5
15	20	36	33	33	29	35	36	25	22	13	9.7	8.5
16	20	38	33	33	28	35	32	25	21	12	9.7	7.9
17	20	38	34	32	28	34	32	24	21	12	11	7.9
18	20	38	35	31	28	34	30	23	20	12	11	7.9
19	19	37	35	31	28	35	30	22	20	12	11	8.5
20	19	37	35	31	29	34	29	21	19	12	12	8.5
21	20	37	35	31	30	34	28	22	19	12	12	9.1
22	21	37	36	30	28	34	28	21	19	12	11	9.7
23	22	37	36	30	29	34	29	22	19	12	10	10
24	21	36	36	30	28	34	29	24	18	12	11	9.7
25	21	35	36	30	28	33	29	24	18	12	11	9.7
26	21	35	36	30	28	33	29	24	18	12	11	9.7
27	21	35	35	30	27	33	27	24	18	12	12	9.7
28	21	35	35	30	27	33	27	26	18	11	12	9.1
29	21	35	35	30	-------	33	27	26	17	11	12	9.1
30	22	35	35	29	-------	34	27	25	17	11	10	9.1
31	24	-------	35	29	-------	33	-------	25	-------	11	10	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	24	18	19.8	May	27	21	24.2
November	38	25	32.0	June	25	17	21.0
December	36	33	34.8	July	17	11	13.2
January	35	29	32.5	August	12	9.7	10.7
February	31	27	28.9	September	10	7.9	9.36
March	36	26	32.9				
April	38	27	32.6	The year	38	7.9	24.3

ELK RIVER AT ESTILL SPRINGS, TENN.

LOCATION.—Water-stage recorder at highway bridge 400 feet downstream from Nashville, Chattanooga & St. Louis Railway bridge, 800 feet below Estill Springs hydroelectric plant, and three-fourths mile southeast of Estill Springs, Franklin County. Zero of gage 850.25 feet above mean sea level.

DRAINAGE AREA.—263 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 4,930 second-feet Nov. 16 (gage height, 8.30 feet); minimum, 44 second-feet Aug. 2 (gage height, 1.18 feet).

1920–1930: Maximum discharge, about 19,800 second-feet Mar. 23, 1929 (gage height, 20.2 feet); minimum, 10 second-feet Oct. 9, 10, 1925.

REMARKS.—Records good except those for estimated periods, which are fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a 195	a 760	538	582	357	750	560	182	198	82	56	48
2	a 165	640	569	628	172	700	538	183	218	82	44	48
3	a 140	1,590	605	1,170	322	a 605	910	96	210	73	58	48
4	a 118	1,500	524	965	515	a 515	1,320	166	189	87	56	48
5	a 122	1,050	497	800	1,230	a 448	1,020	161	187	87	54	48
6	144	750	465	675	938	a 1,200	775	159	139	70	48	48
7	155	628	479	605	725	a 3,600	650	165	252	92	48	48
8	148	560	484	564	628	a 3,150	560	a 222	270	106	48	48
9	133	524	466	542	542	2,090	538	a 515	210	92	48	48
10	132	418	456	528	515	1,200	a 515	a 538	145	85	48	48
11	137	386	436	506	425	1,820	a 470	560	178	82	48	50
12	142	369	402	371	416	1,690	a 440	428	176	58	48	50
13	130	517	394	398	1,200	1,230	402	352	135	58	48	50
14	72	2,090	399	380	3,060	965	a 390	524	179	68	52	50
15	129	4,400	399	382	2,230	800	a 370	650	123	68	56	50
16	110	4,600	323	333	1,320	725	a 350	560	143	58	56	50
17	102	3,800	383	327	992	650	a 330	425	132	58	56	52
18	101	2,880	828	342	828	700	a 310	360	129	58	56	52
19	78	1,880	910	a 350	700	a 1,950	a 300	1,080	124	58	56	52
20	48	1,230	800	a 360	628	a 1,760	a 290	1,260	124	48	56	58
21	143	965	650	a 380	360	a 1,320	a 275	855	104	58	56	136
22	a 400	855	569	421	538	a 965	a 260	650	120	62	52	75
23	a 360	800	546	417	828	a 800	a 245	538	80	64	52	52
24	a 260	775	533	329	1,530	a 700	a 235	650	92	152	62	68
25	a 225	700	448	334	1,140	a 1,140	a 225	675	98	73	58	48
26	a 190	725	461	292	992	a 1,140	220	538	92	56	58	75
27	196	800	520	316	992	910	189	416	92	52	56	68
28	178	775	650	393	855	800	196	344	92	52	54	48
29	a 200	675	775	401	-------	750	192	305	87	52	48	64
30	a 1,200	605	725	346	-------	700	178	296	87	56	48	48
31	a 950	-------	650	321	-------	628	-------	228	-------	60	48	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,200	48	219	0 833	0. 96
November	4,600	369	1,270	4 83	5. 39
December	910	323	545	2. 07	2. 39
January	1,170	292	476	1. 81	2. 09
February	3,060	172	892	3 39	3. 53
March	3,600	448	1,170	4 45	5. 13
April	1,320	178	442	1. 68	1. 87
May	1,260	96	454	1. 73	1. 99
June	270	80	147	. 559	. 62
July	152	48	71. 2	. 271	. 31
August	62	44	52. 6	. 200	. 23
September	136	48	55. 9	. 213	. 24
The year	4,600	44	480	1. 83	24. 75

a Estimated.

ELK RIVER NEAR FAYETTEVILLE, TENN.

LOCATION.—Water-stage recorder at dam and power house of Tennessee Electric Power Co., 2 miles southwest of Fayetteville, Lincoln County. Zero of gage 637.67 feet above mean sea level.

DRAINAGE AREA.—857 square miles.

RECORDS AVAILABLE.—October, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 15,300 second-feet Mar. 7 (gage height, 18.85 feet); minimum, 50 second-feet several days during September (gage height, 0.80 foot).

1925–1930: Maximum discharge, about 45,600 second-feet Mar. 23, 1929 (gage height, from high-water mark, 28.2 feet); minimum, that of September, 1930.

REMARKS.—Records good. Gage height based on daily staff reading Nov. 2–9.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	680	1,950	1,590	1,650	892	1,830	1,590	550	790	324	265	192
2	565	8,030	1,770	1,830	865	1,770	1,500	535	690	328	253	192
3	515	8,630	1,770	2,490	815	1,590	1,770	540	740	307	259	195
4	430	4,730	1,650	2,550	3,390	1,470	2,250	535	665	307	235	178
5	515	3,390	1,470	2,250	3,150	1,360	2,370	515	665	300	235	180
6	530	2,490	1,360	1,950	2,850	2,250	2,070	505	1,220	318	235	178
7	485	1,950	1,360	1,710	2,310	12,900	1,770	442	865	272	229	180
8	455	1,590	1,650	1,590	1,830	10,700	1,590	3,150	815	304	229	170
9	410	1,380	1,530	1,500	1,590	6,600	1,390	3,890	715	335	205	172
10	405	1,230	1,420	1,390	1,390	4,170	1,280	3,390	665	300	217	155
11	347	1,090	1,330	1,300	1,250	5,160	1,200	3,150	590	300	223	160
12	356	1,090	1,250	1,220	1,170	4,730	1,140	2,010	520	310	200	185
13	365	4,030	1,170	1,110	4,590	3,750	1,140	1,470	490	318	211	205
14	296	7,670	1,140	1,140	6,440	2,910	1,000	1,650	465	307	195	198
15	259	12,600	1,080	1,080	6,040	2,430	975	1,500	465	290	892	180
16	320	12,500	1,030	1,000	4,870	2,130	920	1,470	438	276	355	180
17	273	11,900	2,190	948	2,910	1,890	865	1,300	475	264	256	180
18	266	10,100	3,690	948	2,310	2,370	865	1,650	434	300	1,080	160
19	280	6,120	3,630	865	2,010	4,590	840	4,730	420	282	300	155
20	288	3,890	2,910	790	1,830	4,870	765	3,510	420	293	256	300
21	410	2,910	2,310	920	1,590	3,630	765	2,790	438	293	217	265
22	1,470	2,490	1,950	1,140	1,470	2,850	690	2,070	420	277	217	265
23	1,410	2,250	1,770	1,080	1,500	2,370	715	1,650	420	279	205	235
24	1,090	2,190	1,590	1,110	2,430	2,130	665	2,130	393	600	205	247
25	950	2,130	1,470	1,060	3,090	2,670	665	2,010	384	465	195	321
26	758	2,250	1,470	920	2,490	3,150	635	1,590	300	384	180	355
27	653	2,370	1,420	920	2,190	2,910	625	1,330	339	300	195	268
28	540	2,310	1,770	1,000	2,070	2,490	575	1,140	321	286	180	253
29	675	2,070	1,950	975	------	2,190	610	1,030	318	259	188	214
30	3,820	1,830	2,010	975	------	1,950	570	1,080	335	265	178	195
31	2,430	------	1,830	920	------	1,770	------	892	------	259	188	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,820	259	718	0.838	0.97
November	12,600	1,090	4,310	5.03	5.61
December	3,690	1,030	1,760	2.05	2.36
January	2,550	790	1,300	1.52	1.75
February	6,440	815	2,480	2.89	3.01
March	12,900	1,360	3,470	4.05	4.67
April	2,370	570	1,130	1.32	1.47
May	4,730	442	1,750	2.04	2.35
June	1,220	300	540	.630	.70
July	600	244	311	.363	.42
August	1,080	178	273	.319	.37
September	355	155	210	.245	.27
The year	12,900	155	1,510	1.76	23.95

ELK RIVER NEAR ELKMONT, ALA.

LOCATION.—Chain gage at highway bridge 2½ miles above mouth of Shoal Creek, 4 miles below Tennessee State line, and 5 miles northwest of Elkmont, Limestone County. Zero of gage 549.45 feet above mean sea level.

DRAINAGE AREA.—1,700 square miles.

RECORDS AVAILABLE.—July, 1904, to February, 1908; January, 1919, to September, 1930.

EXTREMES.—Maximum discharge during year, 24,800 second-feet Mar. 8 (gage height, 20.1 feet); minimum, 197 second-feet Aug. 31 (gage height, 1.28 feet).

1904–1908, 1919–1930: Maximum discharge, about 51,800 second-feet Mar. 24, 1929 (gage height, from high-water mark, 30.5 feet); minimum, 85 second-feet Sept. 18–20, 1925 (gage height, 1.05 feet).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	940	9,080	3,880	3,330	1,770	3,600	2,260	725	1,330	1,130	270	232
2	850	13,700	3,600	3,330	1,660	3,330	2,520	765	1,230	475	260	232
3	685	19,800	3,330	6,620	1,660	3,050	2,520	765	1,040	445	290	241
4	685	14,200	2,780	5,520	6,340	2,780	3,600	765	1,130	445	300	280
5	808	7,030	2,520	4,700	8,810	2,520	3,740	725	1,040	415	290	260
6	1,330	4,970	2,390	4,290	6,340	3,460	3,330	685	1,330	379	250	250
7	1,040	3,880	2,260	3,600	7,710	21,100	2,650	685	2,520	367	241	232
8	895	3,050	3,330	3,050	4,420	24,800	2,390	2,650	1,230	379	290	232
9	808	2,520	3,460	3,190	3,600	21,700	2,010	12,600	1,130	367	270	232
10	725	2,010	3,050	2,920	3,050	9,630	1,890	4,700	988	475	250	260
11	685	1,890	2,780	2,650	2,650	10,000	1,770	11,000	895	415	250	241
12	648	1,770	2,520	2,520	2,260	10,400	1,770	5,520	808	344	250	280
13	1,500	6,070	2,260	2,260	6,340	8,530	1,550	3,050	725	344	260	445
14	540	15,100	2,010	2,260	18,000	6,340	1,550	5,250	765	344	260	300
15	540	20,000	[a] 2,360	3,460	14,200	5,250	1,500	3,880	685	355	280	322
16	540	19,000	[a] 2,700	3,050	10,200	4,150	1,440	3,330	648	300	1,440	300
17	508	18,700	3,050	2,520	7,300	3,600	1,330	2,780	648	280	685	280
18	475	16,500	7,990	2,260	4,700	3,330	1,330	2,010	685	333	415	280
19	445	12,900	7,160	2,010	4,150	9,490	1,180	12,800	610	270	1,230	270
20	445	7,850	6,340	1,770	3,330	8,530	1,130	9,770	610	333	575	280
21	540	5,790	4,970	1,660	3,050	7,160	1,130	6,070	575	280	367	322
22	1,040	5,250	4,290	1,770	2,780	5,520	1,080	4,560	610	300	311	403
23	1,550	4,420	3,600	2,010	2,520	4,700	1,040	3,460	610	300	311	391
24	1,660	3,600	3,050	2,010	6,890	3,880	1,040	5,930	610	988	270	415
25	1,280	3,600	3,050	1,890	5,520	4,840	1,040	3,740	540	850	270	322
26	1,130	4,150	2,780	1,660	5,380	4,970	988	3,050	475	610	270	391
27	895	4,290	2,780	1,660	4,700	4,970	895	2,390	475	610	241	725
28	850	4,420	3,330	2,260	4,010	4,150	850	2,130	415	475	270	415
29	765	4,420	4,700	1,770	------	3,600	850	1,890	445	344	214	333
30	5,660	4,150	4,290	2,010	------	3,050	808	1,770	415	367	241	300
31	7,990	------	3,880	1,890	------	2,780	------	1,550	------	300	197	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,990	445	1,240	0.729	0.84
November	20,000	1,770	8,140	4.79	5.34
December	7,990	2,010	3,560	2.09	2.41
January	6,620	1,660	2,770	1.63	1.88
February	18,000	1,660	5,480	3.22	3.35
March	24,800	2,520	6,940	4.08	4.70
April	3,740	808	1,710	1.01	1.13
May	12,800	685	3,900	2.29	2.64
June	2,520	415	841	.495	.55
July	1,130	270	440	.259	.30
August	1,440	197	365	.215	.25
September	725	232	316	.186	.21
The year	24,800	197	2,960	1.74	23.60

[a] Interpolated.

ELK RIVER NEAR ROGERSVILLE, ALA.

LOCATION.—Staff gage at highway bridge on Huntsville–Florence road 4 miles east of Rogersville, Lauderdale County. Zero of gage 518.02 feet above mean sea level.

DRAINAGE AREA.—2,100 square miles.

RECORDS AVAILABLE.—October, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 29,600 second-feet Mar. 8 (gage height, 13.5 feet); minimum, 255 second-feet several days in August and September (gage height, 0.8 foot).

1927–1930: Maximum discharge, about 61,600 second-feet Mar. 25, 1929 (gage height, from high-water mark, 22.4 feet); minimum, 200 second-feet Oct. 8, 27–31, 1927 (gage height, 0.8 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,240	4,990	3,490	4,220	2,480	4,410	3,140	1,070	1,780	815	348	255
2	1,020	10,800	3,490	4,220	2,320	4,030	3,140	1,070	1,640	680	315	255
3	960	20,800	3,850	7,390	2,320	3,670	3,670	1,070	1,500	640	348	285
4	860	14,200	3,490	6,790	6,990	3,490	4,030	1,070	1,430	600	380	315
5	1,780	8,440	3,140	6,190	14,200	3,140	4,220	1,070	1,360	520	380	255
6	1,780	6,190	2,800	4,990	9,490	3,850	4,030	1,020	1,360	520	380	255
7	1,500	4,600	2,800	4,220	7,390	23,600	3,490	960	2,160	520	380	255
8	1,240	3,670	3,490	3,850	5,790	29,000	2,970	1,020	1,570	600	348	255
9	1,020	2,970	4,220	3,850	4,790	25,500	2,800	11,000	1,430	680	315	255
10	960	2,480	3,850	3,490	3,850	14,200	2,480	7,810	1,300	600	348	285
11	815	2,320	3,140	3,140	3,490	12,400	2,320	15,700	1,180	560	315	348
12	770	2,320	3,140	3,140	2,800	12,200	2,160	7,810	1,120	520	315	380
13	680	6,790	2,800	2,800	8,860	9,490	2,160	4,220	1,070	520	315	380
14	680	18,200	2,640	2,800	20,200	7,390	2,010	5,390	1,070	485	315	450
15	680	23,900	2,480	4,030	15,700	5,790	1,860	4,990	1,020	450	380	380
16	640	23,600	2,320	3,850	11,300	4,790	1,860	4,030	960	450	485	380
17	600	22,600	2,800	3,140	8,230	4,220	1,780	3,490	1,070	415	910	348
18	600	20,800	7,810	2,800	6,190	4,220	1,710	3,670	960	380	640	315
19	600	18,400	8,860	2,640	4,990	14,400	1,710	13,200	860	380	770	315
20	600	14,900	7,390	2,320	4,220	15,200	1,570	13,900	815	380	770	485
21	1,020	12,200	6,190	2,480	3,850	9,280	1,570	9,070	770	380	485	415
22	1,180	10,800	5,190	2,800	3,310	7,190	1,500	6,390	770	380	415	450
23	1,780	8,650	4,410	2,800	4,220	6,190	1,430	4,600	770	380	380	450
24	2,010	6,390	3,850	2,640	7,600	5,390	1,300	7,190	725	680	380	450
25	1,640	4,790	3,670	2,480	6,190	6,790	1,240	5,390	680	815	380	415
26	1,360	4,790	3,850	2,160	6,190	5,790	1,180	4,220	640	960	315	680
27	1,240	5,190	3,850	2,160	5,390	5,790	1,180	3,310	600	725	315	520
28	1,120	4,990	3,850	2,480	4,600	5,390	1,180	2,800	600	600	315	520
29	1,070	4,410	5,390	2,640	-------	4,410	1,180	2,480	600	485	285	415
30	3,850	3,850	4,990	2,640	-------	3,850	1,120	2,970	600	415	255	380
31	8,230	-------	4,790	2,480	-------	3,490	-------	2,480	-------	380	255	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,230	600	1,400	0.667	0.77
November	23,900	2,320	9,970	4.75	5.30
December	8,860	2,320	4,130	1.97	2.27
January	7,390	2,160	3,470	1.65	1.90
February	20,200	2,320	6,680	3.18	3.31
March	29,000	3,140	8,660	4.12	4.75
April	4,220	1,120	2,200	1.05	1.17
May	15,700	960	4,980	2.37	2.73
June	2,160	600	1,080	.514	.57
July	960	380	546	.260	.30
August	910	255	404	.192	.22
September	680	255	372	.177	.20
The year	29,000	255	3,640	1.73	23.49

SHOAL CREEK AT IRON CITY, TENN.

LOCATION.—Staff gage at Louisville & Nashville Railroad bridge one-fourth mile east of Iron City, Lawrence County, and half a mile below mouth of Holly Creek. Zero of gage 532.74 feet above mean sea level.

DRAINAGE AREA.—355 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, about 9,600 second-feet Mar. 7 (gage height, 12.05 feet); minimum, 82 second-feet Aug. 6, 9 (gage height, 1.50 feet).

1925–1930: Maximum discharge, about 21,800 second-feet Mar. 13, 1927 (gage height, 23.1 feet); minimum, 39 second-feet Sept. 22, 1925 (gage height, 0.60 foot).

REMARKS.—Records fair except those for extremely high stages, which are poor. Some regulation caused by operation of power plant at Lawrenceburg.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	218	650	440	680	650	830	490	290	344	137	106	129
2	218	1,280	465	1,020	595	710	490	270	324	129	113	124
3	235	1,150	395	1,960	540	710	540	270	204	196	129	129
4	290	955	372	1,350	2,980	622	490	252	284	202	102	124
5	740	770	350	1,080	3,080	595	490	235	304	188	98	120
6	418	595	350	955	1,960	770	490	235	304	188	98	113
7	350	440	372	830	1,350	8,500	490	252	304	174	86	98
8	290	290	595	890	1,020	3,680	465	395	284	168	92	98
9	235	235	595	1,280	890	2,140	440	395	267	161	86	111
10	235	270	595	1,150	740	1,640	418	6,960	267	148	304	113
11	218	176	490	1,020	710	2,050	395	2,500	250	148	233	113
12	200	252	515	830	1,020	1,350	395	1,190	250	144	188	168
13	218	1,960	465	830	5,200	1,220	395	910	250	168	148	168
14	185	3,880	440	1,640	5,310	1,020	395	1,880	233	188	174	153
15	185	2,780	395	3,380	2,230	955	395	1,400	233	196	233	153
16	200	1,800	395	1,800	1,560	830	350	1,050	196	188	233	144
17	165	1,490	395	1,350	1,280	710	350	845	267	168	202	153
18	165	1,220	395	1,020	1,020	770	350	910	267	161	179	148
19	150	955	440	830	830	1,490	330	4,540	250	148	174	144
20	185	770	440	710	740	1,220	330	2,320	233	148	153	144
21	194	595	395	710	710	1,080	310	1,480	202	137	148	148
22	218	568	440	650	650	890	330	1,120	179	129	129	144
23	235	540	418	622	650	830	310	1,050	148	106	129	137
24	252	490	395	595	830	770	310	980	144	137	120	129
25	185	490	395	490	830	740	310	845	233	233	106	124
26	165	540	418	540	955	770	310	655	188	267	106	129
27	207	595	395	710	830	622	310	537	161	233	102	106
28	235	595	1,080	955	830	568	310	483	148	188	106	106
29	290	540	1,080	890	-------	540	310	433	129	148	106	106
30	290	465	955	830	-------	540	310	387	124	120	113	102
31	395	-------	830	710	-------	515	-------	387	-------	102	120	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	740	150	251	0.707	0.82
November	3,880	176	911	2.57	2.87
December	1,080	350	506	1.43	1.65
January	3,380	490	1,040	2.93	3.38
February	5,310	540	1,430	4.03	4.20
March	8,500	515	1,280	3.61	4.16
April	540	310	387	1.09	1.22
May	6,960	235	1,140	3.21	3.70
June	344	124	236	.665	.74
July	267	102	166	.468	.54
August	304	86	142	.400	.46
September	168	98	129	.363	.40
The year	8,500	86	631	1.78	24.14

TUSCUMBIA SPRING AT TUSCUMBIA, ALA.

LOCATION.—Water-stage recorder and weir at outlet of small lake formed by Tuscumbia Spring, near city park in Tuscumbia, Colbert County.

RECORDS AVAILABLE.—November, 1928, to April, 1930 (discontinued).

EXTREMES.—Maximum mean daily discharge during year, 147 second-feet Mar. 15; maximum gage height, 6.98 feet Mar. 7 (caused by backwater from creek); minimum mean daily discharge, 31 second-feet Oct. 27–29 (gage height, 4.40 feet).

1928–1930: Maximum mean daily discharge, 160 second-feet Mar. 9, 1929; maximum gage height, 15.05 feet Mar. 23, 1929 (caused by backwater from creek); minimum mean daily discharge, 19 second-feet Dec. 23, 1928 (gage height, 0.88 foot).

REMARKS.—Records good. Gage height based on staff-gage readings Mar. 11–15, 30, Apr. 2–5. Discharge determined from weir formula.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1	72	35	97	86	62	80	* 112
2	70	51	98	86	62	79	108
3	66	60	97	86	65	76	108
4	66	58	96	86	72	76	108
5	68	64	95	78	70	76	104
6	66	66	95	74	70	88	95
7	64	66	97	74	71	* 105	92
8	62	66	98	76	70	122	90
9	61	66	96	76	68	122	92
10	60	66	94	76	68	128	90
11	60	66	93	76	70	124	88
12	48	68	91	76	71	136	88
13	47	86	89	76	81	141	88
14	45	88	86	76	81	146	88
15	43	88	87	75	82	147	87
16	42	90	86	75	80	127	86
17	41	94	86	75	81	126	85
18	40	99	87	74	81	126	-------
19	38	97	87	75	82	126	-------
20	36	99	86	75	82	121	-------
21	36	100	84	76	82	112	-------
22	35	101	83	76	81	110	-------
23	34	102	83	76	82	108	-------
24	33	100	81	76	81	108	-------
25	32	99	81	74	81	109	-------
26	32	99	80	72	81	109	-------
27	31	99	80	72	82	109	-------
28	31	98	83	69	81	110	-------
29	31	98	82	66	-------	111	-------
30	32	98	84	66	-------	115	-------
31	32	-------	85	64	-------	114	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	72	31	46.9	February	82	62	75.7
November	102	35	82.2	March	147	76	112
December	98	80	88.6	April 1–17	112	85	94.6
January	86	64	75.4				

* Interpolated.

BEAR CREEK AT BISHOP, ALA.

LOCATION.—Staff gage in T. 4 S., R. 15 W., at highway bridge half a mile below Little Bear Creek and three-fourths mile southwest of Bishop. Zero of gage 414.85 feet above mean sea level.

DRAINAGE AREA.—621 square miles.

RECORDS AVAILABLE.—August, 1926, to September, 1930.

EXTREMES.—Maximum discharge during year, 10,700 second-feet Mar. 7 (gage height, 20.4 feet); minimum, 34 second-feet Aug. 14 (gage height, 5.37 feet). 1926–1930: Maximum discharge, about 21,400 second-feet Dec. 26, 1926 (gage height, from high-water mark, 27.0 feet); minimum, 28 second-feet Sept. 21, 1927 (gage height, 5.2 feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929								
1	-------	2,520	1,690	3,070	448	448	496	60
2	-------	2,200	1,780	3,350	796	352	352	59
3	-------	1,740	2,400	2,820	608	304	268	56
4	-------	1,780	4,600	1,930	424	892	198	56
5	-------	2,580	3,350	1,600	352	1,100	244	59
6	-------	2,520	2,400	1,690	352	992	160	60
7	-------	2,080	1,980	3,000	328	448	198	63
8	-------	1,830	1,560	3,140	400	424	400	80
9	-------	1,740	1,460	4,800	400	304	376	122
10	580	1,560	1,460	3,100	328	268	304	102
11	550	1,200	1,830	2,840	292	292	208	198
12	520	1,080	1,600	1,860	280	700	256	160
13	490	1,330	1,600	1,360	244	376	1,600	1,170
14	460	10,700	1,280	1,060	232	280	352	1,520
15	430	11,800	1,640	892	232	232	232	1,030
16	615	11,900	3,280	860	188	256	208	448
17	720	6,980	2,400	764	188	304	160	3,800
18	685	5,060	1,640	668	178	244	136	1,520
19	615	2,880	1,460	668	244	424	122	668
20	840	2,230	1,280	1,140	304	280	115	400
21	3,490	1,780	1,120	1,140	496	208	102	304
22	4,780	2,760	1,000	992	448	168	96	256
23	4,420	15,800	920	760	280	152	96	198
24	2,760	18,200	920	580	352	144	85	188
25	2,880	13,400	1,420	524	892	136	85	208
26	3,420	6,120	1,720	552	860	108	80	178
27	3,140	3,230	1,560	796	732	198	80	178
28	3,140	2,820	1,120	956	1,200	304	75	178
29	-------	2,340	2,760	700	828	256	70	160
30	-------	2,030	2,580	732	580	232	68	144
31	-------	1,780	-------	552	-------	496	63	-------

Daily and monthly discharge, in second-feet of Bear Creek at Bishop, Ala., 1929–30—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	828	892	924	608	700	668	232	49[illegible]	90	67	108
2	129	1,320	860	1,000	580	700	636	220	472	115	58	102
3	122	3,240	1,100	1,680	580	668	668	208	42[illegible]	129	55	102
4	115	2,420	1,060	1,480	2,540	636	700	198	376	129	46	108
5	268	2,100	956	1,210	3,100	608	796	178	32[illegible]	115	37	90
6	448	1,170	860	1,060	1,950	2,200	700	168	32[illegible]	102	47	85
7	376	796	796	956	1,520	10,200	636	178	376	96	47	80
8	328	956	1,100	992	1,440	8,800	580	198	352	85	44	68
9	256	552	1,140	924	1,140	4,440	552	178	352	80	47	90
10	178	496	1,060	828	1,030	3,380	496	232	280	85	47	80
11	168	448	956	764	892	2,540	472	992	244	72	56	160
12	152	764	860	700	828	2,780	448	524	244	72	39	168
13	136	2,600	796	668	1,000	1,950	448	376	256	75	35	178
14	129	6,480	732	828	1,060	1,560	424	1,210	220	66	34	160
15	122	7,150	700	860	892	1,280	424	1,170	20[illegible]	72	90	152
16	122	8,650	668	796	860	1,140	400	828	18[illegible]	63	41	108
17	122	7,600	608	700	796	1,060	400	992	20[illegible]	54	352	108
18	115	4,800	668	636	700	956	376	2,150	19[illegible]	52	2,720	96
19	115	3,170	1,240	580	668	1,440	352	6,220	17[illegible]	48	2,100	80
20	115	2,360	1,280	552	636	1,320	352	6,850	16[illegible]	46	1,600	80
21	129	1,860	1,170	580	608	1,280	328	7,300	16[illegible]	42	992	90
22	152	1,720	992	796	580	1,100	304	5,850	144	41	400	80
23	152	1,140	892	700	668	956	304	2,600	144	47	292	232
24	144	1,060	860	668	668	892	292	2,050	136	43	232	160
25	152	1,060	796	608	636	1,210	280	2,000	129	304	188	122
26	144	1,100	796	552	700	1,170	268	1,480	115	144	168	96
27	136	1,720	796	732	700	1,100	256	1,060	115	208	152	102
28	144	1,680	1,170	924	668	892	256	860	102	144	129	178
29	152	1,280	1,210	796	-------	524	256	764	102	108	129	280
30	198	1,100	1,060	732	-------	764	244	636	96	90	108	152
31	496	-------	992	668	-------	732	-------	580	-------	85	102	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
February 10–28	4,780	430	1,820	2.93	2.07
March	18,200	1,080	4,740	7.63	8.80
April	4,690	920	1,870	3.01	3.36
May	4,800	524	1,580	2.54	2.93
June	1,280	178	452	.728	.81
July	1,100	108	365	.588	.68
August	1,600	63	235	.378	.44
September	3,800	56	454	.731	.82
1929–30					
October	496	115	182	.293	.34
November	8,650	448	2,390	3.85	4.30
December	1,280	608	938	1.51	1.74
January	1,680	552	837	1.35	1.56
February	3,100	580	1,000	1.61	1.68
March	10,200	524	1,900	3.06	3.53
April	796	244	444	.715	.80
May	7,300	168	1,560	2.51	2.89
June	496	96	238	.383	.43
July	304	41	93.6	.151	.17
August	2,720	34	337	.543	.63
September	232	68	123	.198	.22
The year	10,200	34	837	1.35	18.29

NOTE.—The records of daily and monthly discharge February to September, 1929, supersede the figures published in Water-Supply Paper 683.

HORSE CREEK NEAR SAVANNAH, TENN.

LOCATION.—Staff gage 700 feet above highway bridge 1½ miles east of Savannah, Hardin County, and 4½ miles above confluence with Tennessee River.
DRAINAGE AREA.—146 square miles.
RECORDS AVAILABLE.—August, 1929, to September, 1930.
EXTREMES.—Maximum discharge during year, 3,050 second-feet Mar. 7 (gage height, 9.94 feet); minimum, 29 second-feet Aug. 9, 10, 13 (gage height, 0.68 foot).
1929–30: Maximum and minimum discharge, same as given above.
REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	76	96	154	196	162	139	73	73	46	34	37
2	53	280	110	260	187	162	139	69	69	46	32	35
3	53	170	103	260	170	146	154	69	67	45	32	35
4	53	132	96	222	930	139	162	69	64	42	32	35
5	470	110	90	204	560	139	132	69	62	42	31	34
6	187	96	90	178	370	280	124	69	62	42	31	32
7	124	96	96	162	300	2,780	124	67	62	40	31	32
8	103	90	154	1,180	260	1,570	117	96	62	40	31	139
9	90	81	132	1,000	222	560	110	96	58	45	29	45
10	78	78	124	530	204	395	110	124	58	42	29	58
11	73	78	117	370	187	470	103	162	56	40	31	154
12	69	96	110	300	170	320	103	110	56	39	31	90
13	67	930	110	280	965	280	103	187	56	37	29	58
14	67	420	103	1,490	500	241	103	187	55	37	32	49
15	62	280	96	1,180	370	222	96	139	55	37	96	45
16	62	241	96	500	280	204	96	124	56	37	62	42
17	58	222	103	395	241	187	96	110	56	37	56	42
18	58	196	103	300	222	222	103	132	55	35	49	42
19	58	162	117	241	196	320	96	445	53	35	46	42
20	56	146	103	222	178	241	90	320	53	35	42	42
21	117	132	96	260	162	213	90	241	49	35	40	55
22	78	132	103	222	162	204	90	187	48	35	38	48
23	69	124	96	196	170	187	83	162	48	37	37	45
24	67	124	96	187	154	178	83	154	46	42	37	45
25	64	117	96	178	146	232	81	124	46	56	37	45
26	64	117	103	170	213	196	81	110	45	45	35	45
27	62	117	96	320	178	178	81	96	45	42	35	45
28	62	110	320	320	170	178	81	96	42	39	35	42
29	64	103	222	280	------	162	76	90	42	37	34	42
30	76	96	187	241	------	154	73	83	40	34	34	40
31	73	------	170	222	------	146	------	73	------	34	32	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	470	53	86.8	0.595	0.69
November	930	76	172	1.18	1.32
December	320	90	120	.822	.95
January	1,490	154	388	2.66	3.07
February	965	146	288	1.97	2.05
March	2,780	139	357	2.45	2.82
April	162	73	104	.712	.79
May	445	67	133	.911	1.05
June	73	40	54.6	.374	.42
July	56	34	39.8	.273	.32
August	96	29	38.1	.261	.30
September	154	32	51.3	.351	.39
The year	2,780	29	152	1.04	14.17

DUCK RIVER AT NORMANDY, TENN.

LOCATION.—Staff gage at county highway bridge half a mile nortl of Normandy, Bedford County, and 2 miles above Nashville, Chattanooga & St. Louis Railway bridge. Zero of gage, 785.47 feet above mean sea level.

DRAINAGE AREA.—214 square miles.

RECORDS AVAILABLE.—December, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year 4,020 second-feet Nov. 2 (gage height, 8.00 feet); minimum, 60 second-feet several days in August and September (gage height, 0.90 foot).

1920–1930: Maximum discharge, about 20,400 second-feet Mar. 23, 1929 (gage height, 18.1 feet); minimum, 45 second-feet July 30 to Oct. 3, Oct. 5–7, 1925 (gage height, 0.6 foot).

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	308	a 350	320	195	420	295	130	a 150	80	70	60
2	88	2,570	370	370	a 195	a 420	282	126	140	80	70	62
3	80	3,600	345	920	195	420	500	122	130	78	70	60
4	78	1,350	282	705	560	370	830	a 121	130	78	70	60
5	88	595	232	a 550	1,180	345	745	120	130	78	70	60
6	94	470	245	395	595	420	a 582	110	232	a 78	66	60
7	86	370	258	370	470	3,020	420	110	182	78	66	a 60
8	80	270	a 339	320	395	2,170	370	420	a 156	95	66	60
9	80	232	420	320	a 345	a 1,420	295	420	130	80	66	60
10	75	232	345	320	295	665	282	420	120	80	a 73	60
11	74	170	320	320	270	1,180	245	a 358	120	78	80	68
12	74	150	295	a 301	245	630	245	295	110	78	80	95
13	a 74	270	258	282	1,350	830	a 238	220	110	a 78	75	95
14	74	1,020	245	270	3,800	595	232	270	107	78	70	a 88
15	76	2,840	a 232	245	2,010	470	232	258	a 104	78	80	80
16	78	1,530	220	220	830	a 420	208	208	102	78	74	70
17	76	2,090	258	220	530	370	195	182	102	78	a 74	70
18	75	1,350	970	220	470	370	182	a 681	102	78	74	70
19	75	745	875	a 220	445	2,010	170	1,180	101	78	74	70
20	a 85	530	705	220	370	1,180	a 165	1,180	95	76	72	70
21	95	420	470	208	320	745	160	595	95	74	70	a 69
22	220	370	a 420	295	295	560	150	395	a 90	72	70	68
23	170	395	370	282	665	a 478	150	370	86	70	70	66
24	130	a 395	370	232	1,590	395	150	420	86	70	a 68	70
25	110	395	320	195	785	830	150	a 345	86	70	66	120
26	102	420	270	a 202	560	830	150	270	83	80	64	95
27	a 102	420	258	208	530	530	a 140	220	83	a 78	64	89
28	102	420	245	295	470	470	130	195	80	75	62	a 78
29	110	370	595	282	-------	420	140	182	a 80	75	60	68
30	500	320	445	245	-------	370	130	170	80	72	60	66
31	395	-------	370	220	-------	370	-------	160	-------	70	a 60	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	500	74	117	0.547	0.63
November	3,600	150	821	3.84	4.28
December	970	220	377	1.76	2.03
January	920	195	315	1.47	1.70
February	3,800	195	713	3.33	3.47
March	3,020	345	765	3.57	4.12
April	830	130	272	1.27	1.42
May	1,180	110	331	1.55	1.79
June	232	80	113	.528	.59
July	95	70	77.1	.360	.42
August	80	60	69.5	.325	.37
September	120	60	72.2	.337	.38
The year	3,800	60	334	1.56	21.20

a Interpolated.

DUCK RIVER AT COLUMBIA, TENN.

LOCATION.—Water-stage recorder at highway bridge two blocks north of public square at Columbia, Maury County. Zero of gage, 537.78 feet above mean sea level.

DRAINAGE AREA.—1,210 square miles.

RECORDS AVAILABLE.—October, 1904, to December, 1908; April, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 18,100 second-feet Feb. 14 (gage height, 21.3 feet); minimum, 13 second-feet Oct. 18 (gage height, —0.78 foot).

1904–1908, 1920–1930: Maximum discharge, about 43,000 second-feet probably on Mar. 25, 1929 (gage height, from high-water mark, 40.7 feet); no flow Oct. 22, 1922 (power plant shut down).

Maximum stage known, 45.6 feet Mar. 30, 1902.

REMARKS.—Records fair. Low-water flow completely regulated at Tennessee Electric Power Co.'s dam three-fourths mile above gage.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	263	4,740	1,410	2,240	1,370	2,400	1,220	294	679	100	91	59
2	238	5,420	1,300	3,040	1,120	2,080	1,150	396	386	136	85	19
3	222	11,600	1,180	6,730	1,120	2,000	2,560	313	396	111	21	183
4	172	12,800	1,220	5,420	4,320	1,800	5,080	174	440	88	106	85
5	270	6,640	1,120	3,980	9,700	1,640	3,460	422	371	106	103	108
6	367	3,460	978	2,960	6,190	1,520	2,640	362	398	59	67	78
7	661	2,320	1,010	2,400	4,230	8,170	2,080	326	430	165	95	61
8	400	1,720	1,600	2,560	3,460	14,600	1,760	368	774	261	92	119
9	370	1,370	2,560	3,640	2,320	10,200	1,480	4,820	305	186	97	16
10	276	1,150	2,240	3,210	1,960	6,020	1,260	4,060	404	478	248	101
11	244	1,010	1,920	2,480	1,680	10,100	1,120	5,680	332	a 480	185	154
12	193	749	1,680	2,160	1,440	10,600	916	3,800	278	a 390	145	125
13	180	2,400	1,440	1,880	7,900	6,550	836	2,160	281	a 310	84	a 165
14	234	8,620	1,330	3,120	17,400	4,320	818	2,000	256	a 230	86	a 104
15	171	11,400	1,260	4,570	13,600	3,120	745	2,400	261	a 180	798	a 186
16	127	11,600	1,120	3,210	7,540	2,560	679	1,600	258	a 140	1,410	105
17	98	9,700	1,040	2,320	4,480	2,160	673	1,300	197	a 125	550	215
18	134	8,440	2,400	1,880	4,140	2,160	562	1,300	203	a 125	380	152
19	74	6,190	4,320	1,640	2,560	3,640	604	6,370	270	a 120	269	97
20	21	3,460	4,320	1,410	2,160	5,160	547	10,100	215	a 110	291	a 95
21	299	2,720	a 3,210	1,300	1,840	4,320	348	5,340	a 215	a 100	197	a 85
22	420	2,160	a 2,480	1,370	1,560	2,960	468	3,120	a 240	a 85	176	a 80
23	1,490	1,880	a 2,080	1,440	3,550	a 2,320	431	2,560	a 270	a 80	116	a 105
24	1,760	1,840	1,920	1,330	5,590	a 1,920	425	3,460	a 220	a 250	145	a 95
25	1,080	2,080	1,720	1,260	5,080	2,160	445	2,800	a 130	a 400	70	a 170
26	614	2,480	1,720	1,120	4,060	3,210	431	1,920	a 170	a 475	78	a 120
27	520	2,640	1,960	1,150	3,300	2,800	165	1,480	a 130	80	129	a 125
28	242	2,480	3,210	1,920	2,720	2,240	474	1,180	a 140	124	127	121
29	319	2,080	a 4,140	2,160	-------	1,800	359	1,010	86	288	133	a 106
30	582	1,760	a 3,300	1,800	-------	1,600	326	807	94	174	66	a 133
31	3,630	-------	a 2,720	1,560	-------	1,410	-------	555	-------	109	154	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,630	21	506	0.418	0.48
November	12,800	749	4,560	3.77	4.21
December	4,320	978	2,060	1.70	1.96
January	6,730	1,120	2,490	2.06	2.38
February	17,400	1,120	4,510	3.73	3.88
March	14,600	1,410	4,110	3.40	3.92
April	5,080	165	1,140	.942	1.05
May	10,100	174	2,340	1.93	2.22
June	774	86	294	.243	.27
July	480	59	196	.162	.19
August	1,410	21	213	.176	.20
September	215	19	112	.093	.10
The year	17,400	19	1,860	1.54	20.86

a Estimated.

DUCK RIVER AT CENTERVILLE, TENN.

LOCATION.—Water-stage recorder at highway bridge three-fourths mile north of Centerville, Hickman County, and 1 mile above Nashville, Chattanooga & St. Louis Railway bridge. Zero of gage 451.33 feet above mean sea level.

DRAINAGE AREA.—2,070 square miles.

RECORDS AVAILABLE.—March, 1919, to September, 1930.

EXTREMES.—Maximum discharge during year, 23,800 second-feet Feb. 15 (gage height, 16.8 feet); minimum, 182 second-feet Sept. 5 (gage height, 0.93 foot).

1919–1930: Maximum discharge, about 45,400 second-feet Mar. 27, 1929; maximum gage height (estimated), 28.0 feet Apr. 2, 1920; minimum discharge, 68 second-feet Aug. 30, 1925 (gage height, 0.39 foot).

REMARKS.—Records excellent. Some regulation at low water caused by operation of power plant at Columbia.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	554	4,850	2,260	3,810	2,760	4,400	2,090	737	1,110	282	355	250
2	566	7,180	1,980	3,590	2,440	3,960	1,980	709	1,050	272	286	304
3	500	8,800	1,780	7,180	2,260	3,450	3,810	765	892	295	250	242
4	484	12,900	1,680	8,960	4,700	3,170	6,860	751	825	300	226	206
5	554	11,700	1,680	6,700	11,700	2,900	6,540	573	772	290	230	202
6	625	5,760	1,580	4,300	12,500	2,640	5,000	765	765	277	210	222
7	802	3,590	1,540	4,100	8,300	8,140	3,960	702	765	264	226	234
8	908	2,570	1,880	5,920	6,080	18,000	3,240	870	730	290	226	286
9	702	2,090	2,830	10,600	4,700	18,200	2,700	1,780	968	566	222	308
10	660	1,780	3,240	8,300	3,810	11,300	2,320	7,180	765	489	1,440	304
11	548	1,580	2,830	6,080	3,240	14,200	2,040	5,460	688	580	1,270	390
12	512	1,540	2,570	4,850	2,760	17,300	1,820	6,540	639	456	524	295
13	472	2,700	2,200	4,100	7,180	13,000	1,680	3,810	632	401	401	445
14	445	8,140	1,980	5,920	21,100	8,470	1,580	2,570	542	370	385	952
15	450	12,700	1,820	10,800	23,100	6,080	1,490	2,640	530	350	606	500
16	445	14,600	1,680	8,640	16,000	4,700	1,400	2,700	500	331	1,820	390
17	401	13,200	1,580	5,920	9,130	3,960	1,320	1,980	518	304	1,540	390
18	380	11,300	1,680	4,550	6,230	5,000	1,320	1,930	548	308	1,070	350
19	340	9,130	3,810	3,660	4,850	7,340	1,190	3,960	489	304	737	370
20	390	6,540	5,000	3,100	4,100	6,860	1,150	11,300	484	286	660	318
21	478	4,400	4,400	2,830	3,380	7,020	1,110	9,460	518	295	586	282
22	744	3,450	3,450	2,700	2,960	5,460	900	5,460	512	268	434	250
23	825	2,830	2,900	2,510	5,000	4,250	998	3,810	548	250	380	277
24	1,880	2,570	2,570	2,440	8,800	3,660	982	4,700	542	548	360	259
25	1,720	2,640	2,380	2,260	8,640	3,810	922	4,550	390	716	295	246
26	1,320	2,960	2,260	2,090	7,500	4,250	915	3,380	440	802	282	238
27	998	3,310	2,440	2,200	6,080	4,400	840	2,380	360	524	250	246
28	855	3,450	3,590	3,170	5,150	3,810	632	1,880	390	360	214	246
29	632	3,100	5,610	3,810	-------	3,170	915	1,680	308	401	250	234
30	646	2,700	5,760	3,660	-------	2,700	788	1,490	272	512	234	268
31	960	-------	4,700	3,170	-------	2,380	-------	1,270	-------	518	259	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,880	340	703	0.340	0.39
November	14,600	1,540	5,800	2.80	3.12
December	5,760	1,540	2,760	1.33	1.53
January	10,800	2,090	4,930	2.38	2.74
February	23,100	2,260	7,300	3.53	3.68
March	18,200	2,380	6,710	3.24	3.74
April	6,860	632	2,080	1.00	1.12
May	11,300	573	3,150	1.52	1.75
June	1,110	272	616	.298	.33
July	802	250	394	.190	.22
August	1,820	210	523	.253	.29
September	952	202	317	.153	.17
The year	23,100	202	2,910	1.41	19.08

DUCK RIVER NEAR HURRICANE MILLS, TENN.

LOCATION.—Staff gage at highway bridge on road between Waverly and Buffalo 4 miles south of Hurricane Mills, Humphreys County, and 5 miles above mouth of Buffalo River. Zero of gage 362.30 feet above mean sea level.

DRAINAGE AREA.—2,610 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 23,700 second-feet Feb. 15 (gage height, 15.8 feet); minimum, 350 second-feet Sept. 5, 6.

1925–1930: Maximum discharge, about 50,500 second-feet Mar. 14, 1927 (gage height, 24.95 feet); minimum, 185 second-feet Sept. 11, 12, 1925 (gage height, 0.44 foot).

REMARKS.—Records good. Possibly slight regulation during low water caused by operation of small power plants upstream.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,110	1,920	2,830	4,780	4,000	5,740	3,160	1,250	1,830	540	625	458
2	745	6,020	2,500	4,130	3,760	a 5,060	3,050	1,180	1,650	540	540	430
3	715	7,650	2,200	5,880	3,280	4,390	3,280	1,110	1,570	512	485	485
4	685	11,600	2,100	9,080	3,520	4,130	7,650	1,250	1,330	540	430	458
5	715	13,700	2,010	7,960	11,800	3,760	8,600	1,110	1,330	540	402	350
6	775	7,800	1,920	6,160	15,000	4,130	6,750	905	1,330	512	375	350
7	808	4,650	1,920	5,040	10,900	6,300	5,460	840	1,250	512	375	430
8	970	3,520	1,920	10,400	7,960	17,200	4,520	1,180	1,250	512	375	568
9	1,180	2,720	2,500	20,400	6,160	20,600	3,880	1,830	1,330	485	375	595
10	840	2,300	3,520	13,900	5,180	15,500	3,400	6,600	1,410	745	402	685
11	808	2,010	3,520	8,920	4,390	14,100	3,050	6,750	1,410	685	2,200	685
12	715	1,920	3,050	7,050	3,880	19,900	2,830	7,050	1,180	970	1,180	655
13	685	1,830	2,830	6,160	5,460	17,000	2,400	5,180	1,110	655	715	595
14	625	7,050	2,500	6,600	18,300	11,300	2,200	3,640	970	625	655	1,040
15	625	10,900	2,300	13,300	23,700	8,120	2,100	4,000	905	625	685	1,040
16	595	13,200	2,200	11,600	22,400	6,450	2,010	3,520	840	568	1,110	715
17	595	13,900	2,010	8,120	12,300	5,460	1,920	2,830	808	512	1,830	625
18	568	9,570	2,010	6,600	8,120	6,160	1,830	13,700	970	485	1,920	655
19	568	8,440	2,500	5,180	6,450	13,700	1,740	18,900	775	485	1,330	595
20	512	7,800	4,780	4,390	5,740	9,080	1,740	11,600	775	485	970	568
21	655	5,740	5,180	4,000	4,650	9,240	1,650	9,240	745	485	840	540
22	745	4,260	4,260	3,880	4,390	7,800	1,490	7,650	775	512	775	485
23	970	4,000	4,260	3,640	4,130	6,020	1,410	5,460	905	512	595	458
24	1,040	3,160	3,400	3,400	9,240	5,180	1,410	5,740	905	485	568	485
25	2,300	2,940	2,830	3,280	9,910	5,320	1,490	5,600	745	1,040	540	458
26	1,740	3,160	2,720	3,050	8,760	5,040	1,410	5,040	685	1,110	512	430
27	1,410	3,520	2,720	3,050	7,650	5,740	1,410	3,640	655	905	485	402
28	1,180	3,760	3,520	3,880	6,450	5,180	1,330	2,940	625	715	430	402
29	1,110	3,640	5,320	4,780	-------	4,520	1,330	2,500	655	595	402	430
30	970	3,160	6,600	4,780	-------	4,000	1,330	2,300	568	745	375	375
31	970	-------	5,600	4,260	-------	3,520	-------	1,920	-------	685	458	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,300	512	901	0.345	0.40
November	13,900	1,830	5,860	2.25	2.51
December	6,600	1,920	3,150	1.21	1.40
January	20,400	3,050	6,700	2.57	2.96
February	23,700	3,280	8,480	3.25	3.38
March	20,600	3,520	8,380	3.21	3.70
April	8,600	1,330	2,860	1.10	1.23
May	18,900	840	4,720	1.81	2.09
June	1,830	568	1,040	.398	.44
July	1,110	485	623	.239	.28
August	2,200	375	741	.284	.33
September	1,040	350	548	.210	.23
The year	23,700	350	3,640	1.39	18.95

a Estimated.

PINEY RIVER AT VERNON, TENN.

LOCATION.—Chain gage at highway bridge 600 feet above mouth of Pretty Creek, half a mile west of Vernon, Hickman County, and 2 miles below mouth of Mill Creek. Zero of gage 470.67 feet above mean sea level.

DRAINAGE AREA.—209 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, about 7,000 second-feet May 18 (gage height, 10.0 feet); minimum discharge, 56 second-feet Sept. 28–30; minimum gage height, 1.80 feet Oct. 12, 13, 19, 20.

1925–1930: Maximum discharge, about 14,200 second-feet Dec. 21, 1926 (gage height, 16.5 feet); minimum, 42 second-feet Oct. 13, 14, 1928.

REMARKS.—Records fair. Possibly slight regulation caused by operation of small milldam at Pinewood.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	92	76	173	288	390	302	147	234	109	78	70
2	74	188	82	184	265	365	320	147	212	109	75	70
3	72	115	78	196	242	320	575	144	204	106	75	68
4	78	95	74	176	820	316	575	153	196	103	72	65
5	82	90	74	166	980	302	520	144	188	103	72	60
6	78	86	76	159	740	298	465	141	184	100	70	60
7	76	84	78	152	600	1,580	415	138	173	100	70	58
8	74	82	82	3,120	470	985	365	293	166	109	68	176
9	74	82	80	3,730	410	760	342	179	162	106	68	94
10	74	80	82	1,320	355	635	302	342	159	106	97	152
11	72	88	82	860	306	1,410	280	221	152	112	82	124
12	70	82	80	670	278	985	263	186	156	103	72	88
13	70	159	80	635	1,500	795	251	186	148	97	75	121
14	74	196	78	1,500	1,410	635	243	193	139	106	127	115
15	74	166	82	2,240	905	548	235	186	139	100	315	85
16	74	142	80	820	695	465	224	176	142	94	106	75
17	72	118	82	635	605	415	214	172	148	85	173	75
18	72	112	95	530	520	2,780	214	5,350	139	85	229	70
19	70	102	98	410	465	1,750	204	3,410	133	85	106	68
20	70	95	100	350	415	985	193	1,270	133	85	85	65
21	102	90	95	385	365	795	186	930	133	85	80	65
22	86	98	95	345	320	635	179	690	184	85	75	62
23	82	90	95	292	492	548	176	690	139	85	75	60
24	78	86	90	260	415	548	172	545	133	173	72	60
25	78	82	90	247	390	575	165	450	127	115	70	60
26	76	78	88	234	440	520	162	392	121	127	70	58
27	76	82	86	301	390	465	159	340	118	100	70	58
28	78	80	283	360	390	415	156	315	115	91	68	56
29	76	78	288	360	-------	415	153	300	115	88	65	56
30	115	78	229	345	-------	365	150	280	112	85	70	56
31	92	-------	196	320	-------	320	-------	260	-------	80	75	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	115	70	77.8	0.372	0.43
November	196	78	103	.493	.55
December	288	74	106	.507	.58
January	3,730	152	660	3.16	3.64
February	1,500	242	553	2.65	2.76
March	2,780	298	720	3.44	3.97
April	575	150	272	1.30	1.45
May	5,350	138	593	2.84	3.27
June	234	112	153	.732	.82
July	173	80	101	.483	.56
August	315	65	93.7	.448	.52
September	176	56	78.3	.375	.42
The year	5,350	56	292	1.40	18.97

BUFFALO RIVER NEAR FLATWOODS, TENN.

LOCATION.—Staff gage one-fourth mile upstream from bridge on Flatwoods-Linden road, half a mile below mouth of Little Opossum Creek, and 1½ miles northwest of Flatwoods, Wayne County. Zero of gage 513.47 feet above mean sea level.

DRAINAGE AREA.—439 square miles.

RECORDS AVAILABLE.—May, 1920, to September, 1930.

EXTREMES.—Maximum discharge during year, 9,200 second-feet Mar. 8 (gage height, 12.0 feet); minimum, 120 second-feet Aug. 10 (gage height, 1.16 feet).

1920–1930: Maximum discharge, about 34,800 second-feet Mar. 13, 1927 (gage height, 29.3 feet); minimum, 65 second-feet Sept. 9, 1925.

REMARKS.—Records good.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	201	255	430	910	810	1,360	575	288	375	165	135	148
2	195	490	430	860	710	1,180	552	288	340	178	130	148
3	183	810	410	1,540	665	1,020	710	270	322	183	128	140
4	192	620	392	1,730	1,600	910	910	288	288	175	125	138
5	392	552	375	1,180	3,520	760	810	288	270	175	140	130
6	510	430	358	1,020	2,340	760	710	270	270	168	145	125
7	450	358	358	910	1,730	5,130	665	255	255	162	135	125
8	358	322	490	2,200	1,360	7,590	620	322	270	155	128	150
9	270	305	530	5,790	1,080	2,940	620	392	255	225	125	204
10	240	288	530	3,520	910	2,400	552	965	240	210	120	175
11	225	305	530	1,990	810	3,180	510	1,480	240	189	710	198
12	225	305	510	1,480	710	3,780	470	910	240	172	305	270
13	210	1,130	490	1,180	2,630	2,260	470	665	240	162	201	240
14	198	2,200	470	2,120	6,960	1,600	450	710	240	158	207	225
15	183	2,480	450	5,130	3,350	1,240	430	710	225	158	305	255
16	178	1,800	430	2,700	1,990	1,130	410	665	225	155	270	210
17	170	1,420	410	1,860	1,540	965	392	552	240	148	225	201
18	165	1,240	410	1,540	1,300	910	392	530	270	145	210	180
19	170	1,020	430	1,130	1,080	1,180	375	710	240	142	240	165
20	178	810	450	910	910	1,130	358	1,240	210	145	210	158
21	186	710	410	910	810	1,020	340	1,130	198	142	178	158
22	240	620	392	860	760	910	340	860	189	140	168	165
23	240	575	410	760	3,780	860	322	760	183	135	158	170
24	225	530	410	665	6,600	810	322	1,130	178	140	152	168
25	225	490	410	620	3,180	910	305	1,130	178	160	150	158
26	210	470	410	552	2,260	910	305	860	178	225	145	158
27	207	490	410	665	1,990	810	305	665	172	204	138	158
28	198	490	860	1,020	1,600	760	305	552	170	170	135	152
29	204	470	1,240	1,020	-------	710	288	490	158	158	140	148
30	210	450	1,180	910	-------	665	305	450	155	148	140	142
31	225	-------	1,080	860	-------	620	-------	410	-------	140	145	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	510	165	234	0.533	0.61
November	2,480	255	748	1.70	1.90
December	1,240	358	519	1.18	1.36
January	5,790	552	1,570	3.58	4.13
February	6,960	665	2,040	4.65	4.84
March	7,590	620	1,630	3.71	4.28
April	910	288	471	1.07	1.19
May	1,480	255	653	1.49	1.72
June	375	155	234	.533	.59
July	225	135	166	.378	.44
August	710	120	188	.428	.49
September	270	125	172	.392	.44
The year	7,590	120	710	1.62	21.99

BUFFALO RIVER NEAR LOBELVILLE, TENN.

LOCATION.—Staff gage at Standing Rock Bridge, 4 miles north of Lobelville, Perry County. Zero of gage 403.54 feet above mean sea level.

DRAINAGE AREA.—723 square miles.

RECORDS AVAILABLE.—November, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 8,260 second-feet Jan. 9, Feb. 15 (gage height, 12.18 feet); minimum, 180 second-feet Aug. 9 (gage height, 0.56 foot).

1927–1930: Maximum discharge, about 15,200 second-feet Mar. 24, 1929 (gage height, 16.25 feet); minimum, 158 second-feet Sept. 29, 30, 1928 (gage height, 0.61 foot).

REMARKS.—Records good below and fair above 7,000 second-feet. Slight regulation caused by operation of mill and power plant at Lobelville.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	330	665	705	1,020	1,510	2,290	1,060	475	835	285	222	210
2	330	880	665	925	1,260	1,990	1,020	475	790	285	222	210
3	300	835	625	1,160	1,160	1,750	2,050	475	705	285	222	200
4	285	745	625	1,930	1,410	1,570	2,230	475	545	272	210	200
5	315	665	545	1,870	4,460	1,360	1,990	440	440	272	200	200
6	510	625	545	1,630	4,140	2,800	1,810	440	422	272	200	210
7	545	625	510	1,510	3,010	5,590	1,460	422	405	260	190	210
8	475	545	585	3,660	2,800	7,880	1,360	422	405	260	190	260
9	440	545	665	8,260	2,410	7,180	1,210	440	390	260	180	300
10	390	475	745	6,780	1,870	3,900	1,110	585	390	272	200	345
11	345	440	745	4,140	925	4,780	970	705	390	315	200	405
12	330	440	745	2,800	745	5,180	925	880	390	300	475	422
13	315	475	705	2,290	1,510	4,780	880	1,160	390	285	375	440
14	315	1,160	705	3,430	6,040	3,150	880	1,160	390	285	375	475
15	300	2,410	665	4,620	8,260	2,410	790	1,260	390	285	475	440
16	300	2,660	665	3,980	4,940	2,050	790	1,210	375	272	405	390
17	300	2,230	625	3,290	2,660	1,690	705	1,160	375	260	375	345
18	285	1,990	665	2,470	2,170	2,410	705	1,210	360	248	360	315
19	285	1,570	705	2,050	1,870	2,410	745	1,990	360	235	330	285
20	285	1,750	745	1,750	1,570	2,290	665	2,170	345	222	315	272
21	315	1,160	705	1,630	1,360	2,050	625	2,050	345	222	300	260
22	330	1,110	665	1,410	1,210	1,870	585	2,050	330	210	285	260
23	360	1,060	665	1,410	1,930	1,570	585	1,870	330	222	272	260
24	360	1,020	625	1,310	5,590	1,460	545	1,810	315	210	272	248
25	330	970	665	1,260	6,040	1,570	545	1,750	315	210	260	248
26	315	970	625	1,210	3,980	1,630	510	1,690	300	210	248	248
27	315	880	585	1,310	3,010	1,510	585	1,630	300	260	248	235
28	300	835	925	1,930	2,660	1,360	545	1,510	300	285	235	235
29	360	790	1,510	1,750	-------	1,310	510	1,360	300	260	222	235
30	405	745	1,510	1,630	-------	1,210	510	1,160	285	235	222	222
31	545	-------	1,210	1,570	-------	1,110	-------	925	-------	235	210	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	545	285	352	0.487	0.56
November	2,660	440	1,040	1.44	1.61
December	1,510	510	738	1.02	1.18
January	8,260	925	2,450	3.39	3.91
February	8,260	745	2,880	3.98	4.14
March	7,880	1,110	2,710	3.75	4.32
April	2,230	510	963	1.33	1.48
May	2,170	422	1,140	1.58	1.82
June	835	285	407	.563	.63
July	315	210	258	.357	.41
August	475	180	274	.379	.44
September	475	200	286	.396	.44
The year	8,260	180	1,120	1.55	20.94

BIG SANDY RIVER AT BRUCETON, TENN.

LOCATION.—Chain gage at highway bridge two-thirds mile above mouth of Cherry Creek and three-fourths mile northeast of Bruceton, Carroll County.
DRAINAGE AREA.—171 square miles.
RECORDS AVAILABLE.—July, 1929, to September, 1930.
EXTREMES.—Maximum discharge during year, 3,640 second-feet Jan. 11 (gage height, from high-water mark, 13.98 feet); minimum, 42 second-feet Aug. 12 (gage height, 2.26 feet).
1929–30: Maximum and minimum discharge, same as given above.
REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	622	100	156	216	270	148	140	83	57	50	56
2	77	1,690	126	234	234	252	156	106	83	59	48	51
3	72	1,330	112	396	225	190	1,650	94	83	58	47	50
4	72	270	119	198	2,130	181	1,580	100	78	57	47	48
5	188	172	119	164	1,970	181	342	94	78	56	72	47
6	112	156	190	156	1,500	172	252	88	100	55	51	47
7	100	140	190	156	324	1,650	198	83	83	53	48	47
8	88	133	270	2,880	252	1,300	164	88	78	54	48	78
9	82	126	164	3,500	216	360	148	94	78	53	45	140
10	82	126	140	3,280	216	252	148	198	78	51	45	66
11	82	148	133	2,650	190	1,190	140	198	72	62	44	70
12	[a] 82	164	133	850	190	565	140	119	72	63	42	126
13	[a] 82	270	140	1,190	1,930	270	133	94	78	56	44	78
14	[a] 82	306	148	1,440	1,470	190	133	527	70	55	47	78
15	[a] 77	216	140	1,470	378	207	133	156	66	52	58	65
16	[a] 77	207	133	396	252	198	126	119	72	51	53	72
17	[a] 77	172	133	252	234	190	119	119	94	50	68	66
18	77	164	527	198	207	324	342	1,610	78	51	78	64
19	77	140	270	181	190	1,930	156	2,470	70	51	62	62
20	77	126	156	198	181	396	119	2,380	67	50	55	63
21	1,190	119	119	740	172	270	126	780	66	51	51	65
22	1,160	119	133	451	164	225	112	181	66	50	50	64
23	180	148	126	216	1,400	198	112	140	60	57	50	63
24	126	140	126	156	1,160	378	106	451	64	55	50	66
25	119	133	156	172	360	342	106	140	62	55	49	60
26	112	133	172	181	1,440	270	106	112	83	53	49	60
27	106	140	181	740	641	190	100	106	58	51	49	57
28	106	133	925	1,400	306	164	100	100	58	50	48	57
29	134	119	378	414	-------	164	100	100	58	48	47	56
30	134	100	207	207	-------	156	94	94	57	47	47	55
31	196	-------	181	234	-------	148	-------	88	-------	47	68	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,190	72	171	1.00	1.15
November	1,690	100	265	1.55	1.73
December	925	100	198	1.16	1.34
January	3,500	156	802	4.69	5.41
February	2,130	164	648	3.79	3.95
March	1,930	148	412	2.41	2.78
April	1,650	94	246	1.44	1.61
May	2,470	83	360	2.11	2.43
June	100	57	73.1	.427	.48
July	63	47	53.5	.313	.36
August	78	42	51.9	.304	.35
September	140	47	65.9	.385	.43
The year	3,500	42	277	1.62	22.02

[a] Estimated.

CACHE RIVER BASIN

CACHE RIVER AT FORMAN, ILL.

LOCATION.—Chain gage in NE. ¼ sec. 31, T. 13 S., R. 3 E, at Chicago, Burlington & Quincy Railroad bridge at Forman, Johnson County, 1 mile below Dutchman Creek.

DRAINAGE AREA.—240 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1930.

EXTREMES.—Maximum discharge during year, 3,190 second-feet Jan. 15 (gage height, 13.80 feet); no flow July 29 to Sept. 15.

1922–1930: Maximum discharge, 5,720 second-feet Jan. 26, 1929 (gage height, 16.5 feet); no flow July 31, Aug. 1, 1923, July 29 to Sept. 15, 1930.

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

Daily and montly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.
1	19	9.7	6.5	708	209	760	209	12	3.8	7.6	0
2	18	585	5.4	880	199	159	229	12	3.2	6.1	0
3	9.7	585	4.1	920	179	139	285	12	2.1	5.0	0
4	6.8	532	3.4	960	840	209	322	12	1.7	3.4	0
5	5.6	532	2.9	960	1,150	189	362	11	1.6	2.1	0
6	4.0	515	2.0	940	1,120	209	362	11	1.5	1.3	0
7	8.7	498	1.9	1,340	1,100	209	285	11	1.4	1.2	0
8	8.3	465	1.9	1,660	1,020	199	229	13	1.3	1.2	0
9	6.8	450	159	2,790	920	335	139	15	1.2	1.1	0
10	6.1	376	139	3,120	860	322	120	15	1.2	1.1	0
11	10	348	120	2,850	840	285	90	16	.9	13	0
12	9.7	335	86	2,430	800	262	82	15	.8	12	0
13	8.7	262	82	2,490	742	240	74	14	.8	10	0
14	7.9	111	70	2,910	725	199	74	14	.7	6.1	0
15	6.8	62	690	3,190	672	139	66	13	.7	3.4	0
16	5.3	47	820	2,850	532	111	70	12	.7	2.8	159
17	5.0	90	900	2,280	498	78	78	12	.7	2.8	120
18	6.1	82	690	1,940	362	70	82	8.3	.7	2.8	90
19	5.6	70	708	1,780	229	66	90	7.9	2.0	2.8	24
20	4.7	58	780	1,660	179	129	86	7.9	2.0	2.6	14
21	4.4	55	860	1,520	179	120	74	7.9	2.0	2.4	10
22	4.4	40	820	708	169	66	55	7.6	.7	2.1	6.0
23	5.0	27	780	602	169	66	52	7.6	2.9	1.3	5.1
24	5.3	18	690	322	159	169	30	7.6	2.1	1.1	4.3
25	5.6	15	655	297	602	820	26	7.6	2.1	.8	20
26	6.1	14	602	273	742	900	21	7.6	2.0	.6	82
27	6.8	12	568	262	780	760	19	7.6	2.0	.4	40
28	7.2	11	550	251	780	672	17	7.6	2.0	.1	30
29	7.6	8.5	550	219	------	602	15	7.6	6.8	0	26
30	8.7	7.4	532	219	------	498	13	6.1	6.8	0	22
31	8.7	------	532	209	------	376	------	4.2	------	0	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	19	4.0	7.50	0.031	0.04
November	585	7.4	207	.862	.96
December	900	1.9	400	1.67	1.92
January	3,190	209	1,400	5.83	6.72
February	1,150	159	598	2.49	2.59
March	900	66	302	1.26	1.45
April	362	13	122	.508	.57
May	16	4.2	10.4	.043	.05
June	6.8	.7	1.95	.0081	.009
July	13	0	3.14	.013	.01
September	159	0	21.7	.090	.10
The year	3,190	0	256	1.07	14.42

NOTE.—No flow during August.

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 Ohio River basin during the year ending September 30, 1930

Date	Stream	Tributary to—	Locality	Gage height	Discharge
				Feet	*Sec.-ft.*
Mar. 1	Ohio River	Mississippi River	Bridge between Russell, Ky., and Ironton, Ohio.	[a] 38.0	259,000
2	do	do	do	[a] 39.0	265,000
5	do	do	do	[a] 30.8	180,000
6	do	do	do	[a] 27.3	153,000
13	do	do	do	[a] 34.3	217,000
19	do	do	do	[a] 23.4	126,000
Apr. 1	do	do	do	[a] 17.5	80,400
2	do	do	do	[a] 16.8	74,000
9	do	do	do	[a] 22.2	117,000
17	do	do	do	[a] 12.9	48,200
Sept. 10	Tygart River	Monongahela River	Grafton, W. Va., 1 mile above gaging station at Fetterman.		.8
July 16	do	do	Poplar Island near Colfax, W. Va.		51.4
Aug. 5	do	do	Colfax, W. Va.		33.9
July 16	West Fork River	do	Monongah, W. Va.		20.0
Aug. 5	do	do	do		9.5
Oct. 10	Ohio Canal		Crystal Springs, Ohio		9.7
Nov. 1	Miami and Erie Canal.		Lindenwald, Ohio		5.3
July 29	Hocking River	Ohio River	Nelsonville, Ohio		43.9
Jan. 8	Kanawha River	do	Lock 2 at Montgomery, W. Va.	22.3[a]	17,900
July 22	Elk River	Kanawha River	Charleston, W. Va.		12.7
31	do	do	do		8.6
Sept. 19	Scioto River	Ohio River	White Sulphur, Ohio		20.0
19	Mill Creek	Scioto River	Bellpoint, Ohio		2.30
Aug. 1	Cumberland River	Ohio River	Below lock and dam at Dover, Tenn.	3.93	1,570
July 24	Caney Fork	Cumberland River	Dodson, Tenn.	.70	13.9
Aug. 8	do	do	do	.2[a]	8.8
8	do	do	2 miles below Dodson, Tenn.	.2[a]	10.1
July 23	Caney Creek	Caney Fork	6 miles east of Spencer, Tenn.		0
24	Calfkiller River	do	Sparta, Tenn.	.00	244
Aug. 8	do	do	do	—.8[a]	25.8
July 25	Rocky River	do	8 miles west of Spencer, Tenn.	.83	6.2
Aug. 8	do	do	do	.70	5.3
25	Little Sequatchie River.	Sequatchie River	Sequatchie, Tenn.		2.78
Sept. 5	Blue Spring	do	Jasper, Tenn.		.64
19	do	do	do		.72
Dec. 12	Blowing Spring	Little Sequatchie River.	Sequatchie, Tenn.		22.0
Aug. 25	do	do	do		1.27
Sept. 5	do	do	do		1.33

[a] Gage height at Lock 29, Ashland, Ky.

○