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RAY LYMAN WILBUR, Secretary
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Water-Supply Paper 702

SURFACE WATER SUPPLY *of the* UNITED STATES 1930

PART 7
LOWER MISSISSIPPI RIVER BASIN

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Prepared in cooperation with the States of
MISSOURI, TENNESSEE, ARKANSAS, KANSAS
and TEXAS

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SURFACE WATER SUPPLY OF LOWER MISSISSIPPI 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 the 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	170,500.00
1901–2	100,000.00	1920	175,000.00	1930	175,000.00
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 10.

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

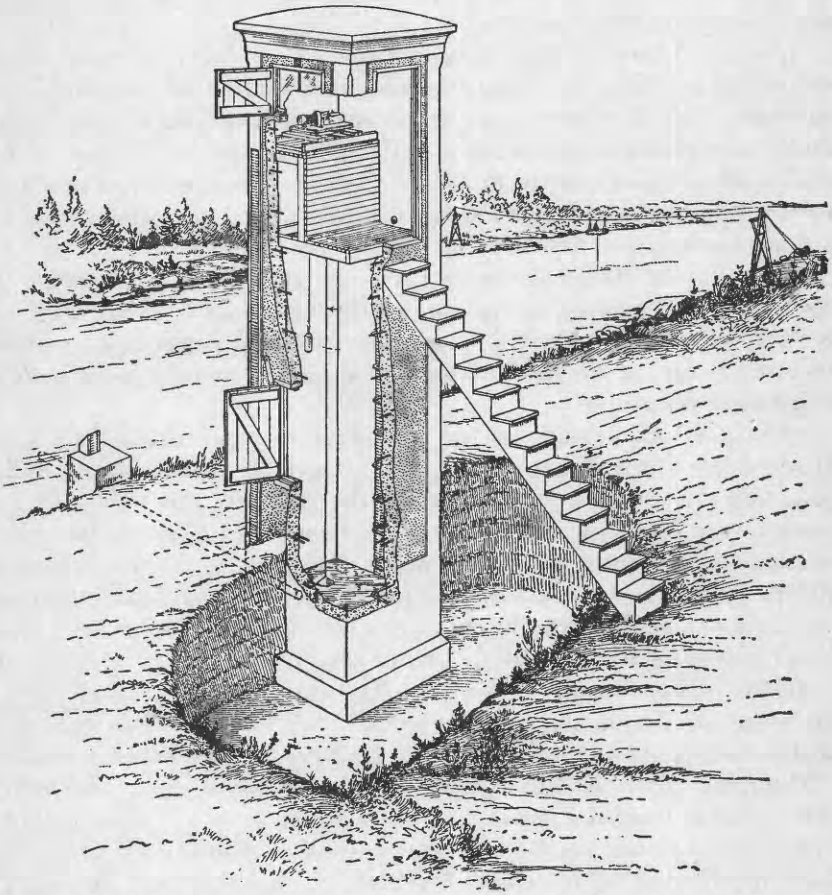

FIGURE 1.—Typical river-measurement station showing concrete well and house for water-stage recorder and staff gages, cable, and car

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

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

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 unless 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 permanency of the stage-discharge relation and (2) on the accuracy of observation of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that records are accurate within 5 per cent; "good," within 10 per cent; "fair," within 15 per cent; and "poor," 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 depth 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 station must be satisfied first.

PUBLICATIONS

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

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

PART 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to 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., 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 Capitol.
St. Paul, Minn., 202 Old State Capitol.
Topeka, Kans., 23 Federal Building.
Rolla, Mo., Rolla Building, School of Mines and Metallurgy.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Capitol.
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 on pages 7 and 9.

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 States, eastern Mississippi River, and Missouri River above junction with Kansas.	1897.
W 16	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28	Measurements, ratings, and gage heights, Arkansas River and western United States.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years)	1898.
W 35 to 39	Descriptions, measurements, gage heights, and ratings	1899.
21st A, pt. 4	Monthly discharge	1899.
W 47 to 52	Descriptions, measurements, gage heights, and ratings	1900.
22d A, pt. 4	Monthly discharge	1900.
W 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
W 75	Monthly discharge	1901.
W 82 to 85	Complete data	1902.
W 97 to 100	do	1903.
W 124 to 135	do	1904.
W 165 to 178	do	1905.
W 201 to 214	do	1906.
W 241 to 252	do	1907 and 1908.
W 261 to 272	do	1909.
W 281 to 292	do	1910.
W 301 to 312	do	1911.
W 321 to 332	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919 and 1920.
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 601 to 614	do	1925.
W 621 to 634	do	1926.
W 641 to 654	do	1927.
W 661 to 674	do	1928.
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 regualr 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 be found in the reports covering the years during which the station was maintained. For example, data from 1910 to 1920 for any station in the area covered by Part 3 are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for these years.

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, [j] 50	50	50	50	51	51	51	51	51
1901	65, 75	65, 75	65, 75	65, 75	[k] 65, 66, 75	66, 75	[k] 65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902	82	[b] 82, 83	83	[l] 82, 83	[k] 83, 85	84	[k] 83, 84	84	85	85	85	85	85	85
1903	97	[b] 97, 98	98	97	[k] 98, 99, [m] 100	99	[k] 98, 99	99	100	100	100	100	100	100
1904	[n] 124, [o] 125, [p] 126	[p] 126, 127	128	129	[k] 128, 130	103, [q] 131	[k] 128, 131	132	133	133, [r] 134	134	135	135	135
1905	[n] 165, [o] 166, [p] 167	[p] 167, 168	169	170	171	172	[k] 169, 173	174	175, [s] 177	176, [r] 177	177	178	178	[t] 177, 178
1906	[n] 201, [o] 202, [p] 203	[p] 203, 204	205	206	207	208	[k] 205, 209	210	211, [s] 213	212, [r] 213	213	214	214	214
1907–8	241	242	243	244	245	246	247	248	249	250, [r] 251	251	252	252	252
1909	261	262	263	264	265	266	267	268	269	270, [r] 271	271	272	272	272
1910	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919–20	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930	696	697	698	699	700	701	702	703	704	705	706	707	708	709

[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 drainage 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.
[j] Loup and Platte Rivers near Columbus, Nebr., and all tributaries below junction with the Platte.
[k] Tributaries of the 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.

COOPERATION

The work was done in cooperation with the several States, as follows: In Missouri and for the station on White River at Beaver, Ark., with the Missouri Bureau of Geology and Mines, H. A. Buehler, State geologist; in Tennessee with the Tennessee Geological Survey, Walter F. Pond, State geologist; in Arkansas with the Arkansas Geological Survey, Dr. Geo. C. Branner, State geologist; in Kansas with the water resources division of the State board of agriculture, Geo. S. Knapp, chief engineer; and in Texas with the board of water engineers, John A. Norris, chairman.

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

Financial assistance was rendered by the following muncipalities, organizations, corporations, and individuals: In Missouri by the Missouri Game and Fish Department, Little River Drainage District, Empire District Electric Co., Springfield City Water Co., and Willis H. Meredith; in Arkansas by the Arkansas Power & Light Co., White River Power Co., and Arkansas Missouri Power Co.; and in Oklahoma by the Public Service Co. of Oklahoma.

DIVISION OF WORK

The data for stations in Missouri and White River at Beaver, Ark., were collected and prepared for publication under the direction of H. C. Beckman, district engineer, assisted by V. L. Austin, H. C. Bolon, R. D. Schmickle, and C. H. Jennings.

The data for stations in Tennessee were collected and prepared for publication under the direction of W. R. King, district engineer, assisted by Warren Withee, C. E. Knox, W. R. Eaton, M. R. Williams, W. J. Perry, and Miss Gladys Boulton.

The data for stations in Arkansas (except White River at Beaver, Ark.) and Oklahoma were collected and prepared for publication under the direction of J. H. Gardiner, district engineer, assisted by O. B. Johnson.

The data for stations in Kansas were collected and prepared for publication by J. B. Spiegel, district engineer, assisted by Charles Wells, W. M. Littlefield, R. V. Smrha, and Mrs. Maude Moon.

The data for stations in Colorado were collected and prepared for publication under the direction of Robert Follansbee, district engineer, assisted by J. H. Baily and Mrs. E. L. Yeatman.

The data for stations in Mississippi were collected and prepared for publication under the direction of C. E. McCashin, district engineer, assisted by Penn Livingston, D. M. Corbett, J. L. Saunders, C. H. Prior, W. S. Eisenlohr, jr., E. J. Tripp, I. E. Anderson, and Miss Annie L. Hardin.

The data for stations in Texas were collected and prepared for publication under the direction of C. E. Ellsworth, district engineer, assisted by Trigg Twichell, Seth D. Breeding, Tate Dalrymple, N. C. Magnuson, Kate Casparis, A. B. Goodwin, P. H. Holland, F. C. Ames, V. L. Austin, J. M. Terry, R. W. Yarbrough, W. C. Dodd, and S. H. Crowell.

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

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GAGING-STATION RECORDS

MERAMEC RIVER BASIN

MERAMEC RIVER NEAR STEELVILLE MO.

LOCATION.—Chain gage in NE. ¼ sec. 21, T. 38 N., R. 4 W., 200 feet below St. Louis-San Francisco Railway bridge and 2½ miles north of Steelville. Zero of gage is 681.86 feet above mean sea level.

DRAINAGE AREA.—About 830 square miles.

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

EXTREMES.—Maximum discharge during year, 18,000 second-feet Jan. 15 (gage height, 14.34 feet); minimum, 108 second-feet Aug. 6 (gage height, 0.51 foot).

1922–1930: Maximum discharge, 36,000 second-feet Apr. 1, 1927 (gage height, 19.40 feet); minimum, that of Aug. 6, 1930.

Maximum stage known, 26.5 feet Aug. 20, 1915 (discharge, about 60,000 second-feet).

REMARKS.—Records good except those estimated. Flow naturally regulated by large springs.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	185	4,800	214	368	442	1,600	392	262	200	158	136	136
2	185	1,600	214	722	498	1,180	392	245	200	158	134	136
3	185	1,020	214	908	e 1,000	1,020	416	245	200	158	131	136
4	185	758	214	758	1,600	870	442	245	185	158	131	131
5	185	e 642	214	653	2,110	795	416	245	185	158	131	139
6	e 185	526	214	587	1,680	795	416	245	185	172	108	142
7	185	469	214	556	1,340	4,700	392	245	185	185	111	e 250
8	214	442	245	945	1,100	5,850	368	245	185	158	116	392
9	230	416	230	945	e 920	2,280	345	245	185	158	116	230
10	230	392	230	722	795	1,680	322	245	185	155	121	230
11	245	368	214	e 1,200	722	1,340	322	245	200	153	126	214
12	4,000	345	214	2,280	653	1,020	322	262	214	150	142	214
13	2,110	322	230	8,840	620	908	301	280	200	153	147	245
14	1,100	301	e 500	11,900	587	e 820	301	245	200	153	153	e 245
15	653	280	368	16,400	498	e 750	301	245	200	153	158	245
16	498	280	653	e 5,000	e 480	688	301	245	185	147	158	442
17	392	280	1,020	1,770	469	653	280	245	185	147	172	368
18	345	262	3,500	1,180	442	620	280	245	185	147	185	280
19	301	262	1,600	1,020	416	587	280	230	172	147	172	245
20	280	245	1,340	1,020	416	556	280	230	172	147	172	214
21	262	245	945	908	416	498	280	230	158	147	172	185
22	245	230	758	653	469	469	280	230	158	147	158	172
23	245	230	653	653	1,520	469	280	230	158	147	158	172
24	245	230	587	620	1,430	469	280	230	158	153	155	172
25	230	214	498	587	2,360	442	280	230	158	153	153	172
26	230	214	498	498	15,300	442	280	214	158	147	147	158
27	214	214	498	469	3,140	416	280	214	158	147	147	158
28	214	214	469	442	1,940	416	262	214	158	147	142	153
29	214	214	442	442	-------	416	262	214	158	147	136	153
30	214	214	416	442	-------	392	262	200	158	142	136	147
31	2,790	-------	392	442	-------	392	-------	200	-------	139	136	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,000	185	548	0.660	0.76
November	4,800	214	541	.652	.73
December	3,500	214	581	.700	.81
January	16,400	368	2,060	2.48	2.86
February	15,300	416	1,550	1.87	1.95
March	5,850	392	1,080	1.30	1.50
April	442	262	320	.386	.43
May	280	200	237	.286	.33
June	214	158	180	.217	.24
July	185	139	153	.184	.21
August	185	108	144	.173	.20
September	442	131	209	.252	.28
The year	16,400	108	630	.759	10.30

e Estimated.

MERAMEC RIVER NEAR SULLIVAN, MO.

LOCATION.—Chain gage in N. ½ SW. ¼ sec. 35, T. 40 N., R. 2 W., at Sappington highway bridge, 6 miles southwest of Sullivan. Zero of gage is 582.64 feet above mean sea level.

DRAINAGE AREA.—1,550 square miles.

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

EXTREMES.—Maximum discharge during year, 19,000 second-feet Jan. 14 (gage height, 18.20 feet); minimum, 208 second-feet Aug. 10, 11 (gage height, 1.98 feet).

1921–1930: Maximum discharge, 28,300 second-feet June 2, 1927 (gage height, 22.89 feet); minimum discharge, 200 second-feet Aug. 31, Sept. 8, 9, 1925; minimum gage height, 1.48 feet Aug. 12, 1926.

Maximum stage known, about 30.7 feet during August, 1915 (discharge, about 90,000 second-feet).

REMARKS.—Records good. Discharge estimated Dec. 18, 20.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	322	3,620	410	1,050	960	3,000	840	578	358	278	231	219
2	303	4,250	435	1,120	960	2,580	900	578	358	278	231	225
3	303	2,860	560	1,180	1,320	2,040	900	578	358	278	225	225
4	322	1,640	485	1,240	1,780	1,910	900	550	358	260	225	219
5	364	1,310	410	1,310	2,040	1,780	840	550	358	260	219	219
6	364	1,180	435	1,380	3,150	1,520	840	550	358	260	219	237
7	342	990	485	1,380	2,370	5,050	840	550	358	278	213	278
8	342	870	535	1,380	2,170	11,200	840	550	338	318	213	450
9	342	810	535	1,500	1,910	6,530	780	525	338	278	213	605
10	385	750	510	1,500	1,650	3,460	750	525	318	278	208	475
11	585	722	485	1,570	1,460	2,580	720	525	338	278	208	402
12	2,860	695	485	2,160	1,390	2,300	720	500	358	260	213	358
13	4,650	695	1,380	11,800	1,320	1,910	690	500	402	260	278	402
14	2,160	640	722	18,000	1,260	1,780	690	500	380	260	278	426
15	1,380	640	750	16,300	1,200	1,580	690	500	380	260	278	605
16	1,180	612	870	8,310	1,140	1,460	690	475	358	243	278	780
17	810	585	3,620	3,620	1,080	1,390	660	450	358	243	278	840
18	810	560	6,300	2,650	1,020	1,260	660	475	338	243	278	660
19	750	535	5,350	2,240	1,020	1,260	660	475	318	240	298	550
20	668	535	3,800	1,980	960	1,200	632	475	318	237	278	450
21	585	510	2,020	1,840	900	1,140	632	475	318	237	278	402
22	560	485	1,830	1,650	900	1,080	632	450	318	231	260	358
23	535	485	1,380	1,520	1,910	1,080	632	450	318	243	260	338
24	535	460	1,240	1,720	2,510	1,140	632	450	298	260	243	318
25	510	435	1,120	1,460	3,970	1,140	605	426	318	278	243	318
26	485	460	1,050	1,390	12,900	1,020	605	402	358	278	237	318
27	435	435	1,050	1,200	10,600	1,020	605	402	338	260	231	298
28	460	435	990	1,140	4,060	960	605	402	318	260	231	278
29	485	435	930	1,080	------	960	578	380	298	243	225	278
30	510	435	870	1,020	------	960	578	380	278	237	225	278
31	990	------	870	1,020	------	900	------	358	------	237	219	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,650	303	817	0.527	0.61
November	4,250	435	969	.625	.70
December	6,300	410	1,350	.871	1.00
January	18,000	1,020	3,120	2.01	2.32
February	12,900	900	2,430	1.57	1.64
March	11,200	900	2,170	1.40	1.61
April	900	578	712	.459	.51
May	578	358	483	.312	.36
June	402	278	340	.219	.24
July	318	231	260	.168	.19
August	298	208	242	.156	.18
September	840	219	394	.254	.28
The year	18,000	208	1,100	.710	9.64

MERAMEC RIVER NEAR EUREKA, MO.

LOCATION.—Chain gage in SE. ¼ sec. 32, T. 44 N., R. 4 E., at Votaw Ford highway bridge, 2 miles east of Eureka. Zero of gage is 407.40 feet above mean sea level.

DRAINAGE AREA.—3,800 square miles.

RECORDS AVAILABLE.—August, 1903, to July, 1906; October, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 42,200 second-feet Jan. 16 (gage height, 24.41 feet); minimum, 295 second-feet Aug. 12 (gage height, 0.26 foot).

1921–1930: Maximum discharge, 64,000 second-feet Apr. 3, 1927 (gage height, 29.47 feet); minimum, that of Aug. 12, 1930.

Maximum stage known, 39.2 feet Aug. 22, 1915 (discharge, about 175,000 second-feet).

REMARKS.—Records good. Discharge estimated Oct. 19, Dec. 21, Feb. 15.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	760	3,050	940	2,170	2,390	8,640	2,170	1,140	728	795	406	395
2	728	8,360	940	3,290	2,500	6,690	2,280	1,220	695	605	395	375
3	695	7,800	1,140	3,650	3,890	4,980	2,280	1,220	695	563	385	370
4	665	3,650	1,310	4,610	5,500	4,250	2,280	1,140	695	551	375	360
5	665	2,830	1,020	3,650	7,660	3,770	2,280	1,140	695	545	380	385
6	728	2,280	900	3,170	7,520	3,410	2,280	1,020	665	521	365	380
7	760	2,060	980	3,650	8,780	3,530	2,170	1,060	665	2,610	350	473
8	728	1,760	1,140	3,650	5,890	9,860	2,060	1,020	635	1,140	355	635
9	728	1,670	1,310	4,130	5,240	16,900	1,960	1,020	635	940	365	795
10	865	1,580	1,310	4,130	4,370	14,300	1,960	980	605	728	345	980
11	940	1,490	1,220	3,650	3,890	6,560	1,860	980	665	635	335	1,140
12	5,630	1,400	1,220	6,960	3,530	5,110	1,760	980	695	605	300	940
13	6,960	1,400	1,760	20,300	3,290	4,250	1,670	980	695	575	335	830
14	8,080	1,400	4,250	29,200	3,290	3,770	1,670	980	728	545	350	760
15	3,890	1,400	2,940	37,400	3,170	3,410	1,580	940	728	509	370	2,500
16	2,610	1,310	3,050	42,200	3,050	3,170	1,580	940	695	485	365	1,760
17	1,960	1,220	9,230	36,500	2,940	2,940	1,580	940	695	467	428	1,580
18	1,670	1,220	13,300	14,300	2,830	2,830	1,490	940	665	455	438	1,860
19	1,490	1,140	10,000	6,560	2,720	2,720	1,490	980	665	438	433	1,400
20	1,310	1,060	8,500	5,240	2,500	2,610	1,490	980	635	438	438	1,140
21	1,220	980	6,380	4,980	2,500	2,500	1,490	940	635	428	455	940
22	1,140	1,020	4,250	4,130	2,500	2,390	1,310	940	605	422	444	830
23	1,140	1,020	3,530	3,650	6,960	2,280	1,400	980	575	416	428	760
24	1,060	1,020	3,050	4,610	7,100	2,170	1,310	900	557	455	428	760
25	1,060	980	2,720	3,770	13,000	2,390	1,310	900	575	450	438	665
26	1,020	980	2,610	3,650	18,500	2,500	1,310	865	728	461	433	695
27	940	940	2,720	2,940	21,900	2,720	1,220	830	865	479	438	665
28	980	980	2,610	2,830	21,100	2,610	1,220	795	695	473	455	605
29	980	940	2,610	2,610	-------	2,390	1,220	795	635	461	444	575
30	1,020	900	2,500	2,500	-------	2,280	1,220	760	728	416	428	533
31	1,580	-------	2,280	2,390	-------	2,280	-------	760	-------	416	375	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,080	665	1,740	0.458	0.53
November	8,360	900	1,930	.508	.57
December	13,300	900	3,280	.863	.99
January	42,200	2,170	8,920	2.35	2.71
February	21,900	2,390	6,380	1.68	1.75
March	16,900	2,170	4,520	1.19	1.37
April	2,280	1,220	1,700	.447	.50
May	1,220	760	970	.255	.29
June	865	557	673	.177	.20
July	2,610	416	614	.162	.19
August	455	300	396	.104	.12
September	2,500	360	870	.229	.26
The year	42,200	300	2,650	.697	9.48

BOURBEUSE RIVER AT UNION, MO.

LOCATION.—Chain gage in SW. ¼ sec. 26, T. 43 N., R. 1 W., at bridge on State highway 50, 800 feet above Flat Creek and 1 mile east of Union. Zero of gage is 491.93 feet above mean sea level.

DRAINAGE AREA.—767 square miles.

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

EXTREMES.—Maximum discharge during year, 12,500 second-feet Jan. 16 (gage height, 14.00 feet); minimum, 22 second-feet Aug. 12, 18, 22, 26, and 31.

1921–1930: Maximum discharge, 22,500 second-feet Apr. 3, 1927 (gage height, 19.10 feet); minimum discharge, that of Aug. 12, 18, 22, 26, 31, 1930; minimum gage height, 0.80 foot Oct. 5, 6, 1922.

Maximum stage known, 25.5 feet Aug. 22, 1915 (discharge, about 50,000 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	81	405	97	455	280	1,440	320	108	65	57	34	32
2	53	5,850	97	560	280	1,040	320	114	62	57	27	32
3	44	1,870	90	1,280	480	815	320	114	62	57	29	31
4	40	965	84	1,780	1,440	680	300	114	60	57	34	27
5	133	650	90	1,040	3,540	560	340	110	60	48	32	29
6	97	532	90	745	4,440	505	382	102	60	49	37	28
7	78	430	94	745	2,140	505	405	105	60	194	34	132
8	65	360	107	680	1,700	1,520	320	96	60	455	32	78
9	59	300	107	1,280	1,440	6,540	300	96	52	132	29	98
10	79	280	139	1,120	1,120	1,700	230	96	57	102	27	745
11	81	245	245	780	890	1,120	214	93	65	95	25	405
12	928	230	245	1,280	745	852	199	87	68	95	22	262
13	1,960	214	262	4,970	620	680	180	78	60	80	25	174
14	4,750	230	405	9,020	560	560	169	75	62	73	25	117
15	1,040	214	1,440	11,600	532	505	163	78	60	73	29	405
16	590	214	965	12,500	480	430	159	78	62	73	25	340
17	455	186	928	2,500	480	405	151	78	60	49	27	1,280
18	340	174	1,280	1,200	505	360	143	78	52	47	22	620
19	262	162	1,780	1,700	560	360	132	96	49	39	25	360
20	214	157	1,700	1,200	505	320	132	90	52	39	25	230
21	186	148	1,200	890	455	320	132	96	52	39	25	167
22	157	135	780	620	405	280	128	176	47	39	22	132
23	139	126	680	505	1,040	245	126	163	47	37	25	114
24	122	118	560	455	2,500	245	117	147	48	34	27	96
25	111	114	505	405	2,140	262	110	121	44	37	27	84
26	104	109	455	405	3,540	262	110	100	110	37	22	62
27	94	109	430	382	6,310	280	107	90	62	34	32	55
28	90	102	455	340	2,500	280	110	78	57	37	29	52
29	104	100	560	280	-------	280	107	81	57	37	27	52
30	94	94	560	262	-------	320	114	77	57	34	23	44
31	122	-------	480	262	-------	320	-------	70	-------	27	22	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,750	40	409	0.533	0.61
November	5,850	94	494	.644	.72
December	1,780	84	545	.711	.82
January	12,500	262	1,980	2.58	2.97
February	6,310	280	1,490	1.94	2.02
March	6,540	245	774	1.01	1.16
April	405	107	201	.262	.29
May	176	70	99.5	.130	.15
June	110	44	59.0	.077	.09
July	455	27	73.0	.095	.11
August	37	22	27.3	.036	.04
September	1,280	27	209	.273	.30
The year	12,500	22	525	.684	9.28

BIG RIVER AT BYRNESVILLE, MO.

LOCATION.—Chain gage in SE. ¼ sec. 12, T. 42 N., R. 3 E., at highway bridge 200 feet below dam and mill at Byrnesville.

DRAINAGE AREA.—892 square miles.

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

EXTREMES.—Maximum discharge during year, 17,400 second-feet Jan. 15 (gage height, 21.00 feet); minimum, 41 second-feet Aug. 5 (gage height, 1.80 feet).

1922–1930: Maximum discharge, 21,900 second-feet Apr. 2, 1927 (gage height, 22.63 feet); minimum, that of Aug. 5, 1930.

Maximum stage known, 30.2 feet during August, 1915 (discharge, about 80,000 second-feet).

REMARKS.—Records good for discharges above 200 second-feet and fair for those below. Slight diurnal fluctuation during low stages is caused by 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	246	1,640	175	596	596	1,750	520	294	157	166	78	73
2	175	848	166	1,070	762	1,360	520	306	148	157	73	78
3	157	762	166	1,640	1,360	1,160	596	294	148	131	54	78
4	157	678	175	1,210	1,750	1,020	637	281	148	123	53	68
5	157	486	175	936	2,040	936	637	269	148	108	45	73
6	166	423	184	762	2,100	848	596	269	139	83	54	95
7	166	348	246	936	1,530	1,070	520	257	139	1,640	64	116
8	157	281	281	1,420	1,310	4,020	486	257	131	363	83	131
9	203	294	269	1,480	1,120	2,700	486	246	123	257	78	184
10	184	306	306	1,210	980	1,700	454	246	131	175	73	157
11	203	269	281	1,260	848	1,360	423	234	139	148	68	157
12	1,420	269	269	3,620	762	1,120	393	234	166	157	64	148
13	1,860	269	306	9,820	762	1,020	378	234	166	139	60	123
14	980	294	1,640	15,000	1,120	892	363	224	175	123	53	123
15	557	294	805	17,200	1,020	848	363	213	166	102	68	1,310
16	393	257	848	10,400	848	762	363	203	157	95	89	848
17	320	269	6,200	2,280	805	678	348	213	148	89	89	596
18	257	234	6,700	2,220	762	678	363	234	157	83	83	333
19	234	234	3,190	1,750	678	637	348	234	148	83	89	246
20	224	224	1,980	1,640	637	596	333	234	139	89	83	193
21	224	213	1,310	1,480	596	557	333	224	139	78	83	166
22	257	203	936	1,360	1,020	520	333	213	131	73	73	139
23	246	193	980	1,120	2,770	520	333	203	131	73	83	116
24	246	193	848	980	2,340	520	306	193	131	78	89	108
25	224	193	720	936	4,450	557	305	193	139	83	83	123
26	203	193	762	936	8,800	678	306	193	269	89	83	175
27	184	193	762	848	5,620	892	294	184	246	116	73	123
28	269	193	805	805	4,900	805	294	175	139	108	73	95
29	234	184	720	678	-------	678	306	175	166	89	73	89
30	269	184	637	678	-------	596	306	175	193	83	73	83
31	848	-------	596	637	-------	557	-------	175	-------	83	73	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,860	157	368	0.413	0.48
November	1,640	184	354	.397	.44
December	6,700	166	1,080	1.21	1.40
January	17,200	596	2,800	3.14	3.62
February	8,800	596	1,870	2.10	2.19
March	4,020	520	1,030	1.15	1.33
April	637	294	408	.457	.51
May	306	175	228	.256	.30
June	269	123	155	.174	.19
July	1,640	73	170	.191	.22
August	89	45	72.9	.082	.09
September	1,310	68	212	.238	.27
The year	17,200	45	725	.813	11.04

HEADWATER DIVERSION CHANNEL BASIN

CASTOR RIVER AT ZALMA, MO.

LOCATION.—Chain gage in S. ½ sec. 29, T. 29 N., R. 9 E., at highway bridge in Zalma. Zero of gage is about 350 feet above mean sea level.
DRAINAGE AREA.—395 square miles.
RECORDS AVAILABLE.—September, 1921, to September, 1930.
EXTREMES.—Maximum discharge during year, 9,940 second-feet Jan. 14 (gage height, 23.73 feet); minimum, 35 second-feet Aug. 30.
1921–1930: Maximum discharge, 19,400 second-feet Dec. 14, 1927 (gage height, 26.50 feet); minimum, 30 second-feet Aug. 31, 1924 (gage height, 1.10 feet).
Maximum stage known, 28.0 feet during August, 1915 (discharge, about 30,000 second-feet).
REMARKS.—Records fair. Discharge estimated Jan. 3.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	114	91	272	321	720	225	114	72	50	38	44
2	69	272	91	339	321	600	225	120	72	50	38	47
3	69	240	91	572	321	521	240	120	69	52	38	47
4	72	210	91	806	540	465	240	114	69	50	38	44
5	82	173	91	620	5,480	429	256	108	69	50	40	42
6	82	146	91	580	5,480	393	225	108	69	50	38	42
7	82	153	96	1,970	1,590	580	225	96	72	50	38	42
8	78	146	120	6,890	720	580	210	102	75	50	38	44
9	75	114	127	4,420	850	560	256	96	69	52	38	52
10	75	140	114	3,390	640	540	256	102	69	50	38	57
11	75	114	114	2,180	600	502	195	120	66	50	38	52
12	75	114	114	1,720	560	465	188	114	66	44	38	52
13	75	114	114	5,920	600	429	173	108	66	47	38	54
14	75	127	153	9,720	560	393	180	102	66	44	38	52
15	75	127	357	8,040	521	357	180	96	66	44	42	66
16	72	127	502	1,940	393	321	210	96	66	44	44	75
17	75	114	1,640	2,400	429	304	195	86	63	42	44	75
18	72	114	3,430	1,490	411	304	195	91	63	42	47	66
19	75	114	3,200	1,260	393	304	180	86	63	42	52	60
20	75	102	1,620	946	357	272	166	86	60	42	50	57
21	82	102	1,020	720	521	256	173	86	60	42	47	52
22	86	102	740	600	321	240	173	82	60	42	44	50
23	91	96	620	620	339	225	166	82	54	40	44	50
24	91	102	521	620	321	225	160	86	54	42	44	54
25	86	102	429	620	304	240	153	82	54	42	42	75
26	82	96	429	429	994	256	146	82	52	44	42	69
27	78	96	393	393	1,690	256	146	78	52	42	40	66
28	82	96	357	393	922	272	146	78	50	42	40	57
29	96	91	339	429	------	256	140	75	50	42	38	54
30	96	91	304	321	------	256	114	75	50	38	36	52
31	108	------	288	321	------	240	------	75	------	40	36	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	108	69	80.0	0.203	0.23
November	272	91	128	.324	.36
December	3,430	91	571	1.45	1.67
January	9,720	272	1,970	4.99	5.75
February	5,480	304	946	2.39	2.49
March	720	225	379	.959	1.11
April	256	114	191	.484	.54
May	120	75	95.0	.241	.28
June	75	50	62.9	.159	.18
July	52	38	45.2	.114	.13
August	52	36	40.8	.103	.12
September	75	42	55.0	.139	.16
The year	9,720	36	378	.957	13.02

OBION RIVER BASIN

SOUTH FORK OF OBION RIVER NEAR GREENFIELD, TENN.

LOCATION.—Staff gage at bridge on State highway 43, 2½ miles south of Greenfield, Weakley County, and 10 miles above confluence with Middle Fork.
DRAINAGE AREA.—431 square miles.
RECORDS AVAILABLE.—July, 1929, to September, 1930.
EXTREMES.—Maximum discharge during period, 12,800 second-feet Jan. 10 (gage height, 15.52 feet); minimum, 97 second-feet Aug. 1–3, 13, 14, Sept. 1–7, 21–25, 1930 (gage height, 1.5 feet).
REMARKS.—Records fair.

Daily discharge, in second-feet, 1929–30

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1929				1929				1929			
1	-------	326	140	11	444	358	408	21	148	148	148
2	-------	165	140	12	216	462	165	22	140	148	148
3	-------	148	140	13	240	165	374	23	204	148	148
4	-------	148	240	14	184	156	296	24	165	174	148
5	-------	140	148	15	254	156	228	25	148	148	148
6	-------	148	148	16	240	140	165	26	140	148	156
7	-------	858	1,500	17	254	140	165	27	140	140	156
8	-------	462	1,550	18	156	156	165	28	140	140	156
9	156	714	268	19	165	148	156	29	156	140	148
10	342	540	624	20	156	148	156	30	408	140	148
								31	174	140	-------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	148	1,970	194	282	321	419	216	181	188	121	103	103
2	148	1,850	194	786	369	402	275	154	188	121	97	97
3	140	930	184	390	369	290	1,550	167	174	121	97	97
4	140	326	174	426	2,960	275	1,390	202	167	121	109	97
5	140	296	174	268	2,810	275	542	160	167	121	109	97
6	148	216	184	268	2,520	260	385	154	174	121	109	97
7	156	204	184	1,790	1,850	2,170	321	154	167	121	109	97
8	148	194	310	5,090	542	1,610	260	188	167	121	109	109
9	148	194	282	8,790	470	770	216	188	154	121	109	140
10	148	194	240	11,900	337	453	216	986	154	121	103	121
11	148	194	204	7,210	305	942	202	560	154	121	103	436
12	148	194	204	4,470	337	690	202	353	147	134	103	436
13	140	1,160	204	3,600	2,810	436	202	1,030	147	121	97	140
14	140	1,140	204	3,130	2,810	337	202	1,500	147	121	97	121
15	148	500	204	2,570	2,470	305	188	402	147	121	128	115
16	148	480	204	2,100	1,060	290	188	305	154	109	121	115
17	148	228	216	1,330	470	290	216	260	147	109	134	109
18	148	204	1,390	854	385	1,280	353	3,770	147	109	128	109
19	148	194	1,390	385	337	2,880	290	6,110	160	109	128	103
20	148	184	1,060	305	305	2,620	181	5,760	147	109	121	103
21	216	174	408	1,110	290	2,470	181	3,460	134	109	121	103
22	204	174	216	1,080	275	986	174	2,810	134	115	109	97
23	194	184	216	369	488	402	174	578	134	115	103	97
24	156	194	216	275	436	402	167	369	134	160	103	97
25	156	194	216	275	353	470	167	290	134	121	103	97
26	148	194	216	275	1,230	419	167	230	128	115	103	103
27	148	194	216	1,390	770	290	160	230	128	103	103	103
28	148	194	1,440	1,910	436	260	160	216	128	109	103	103
29	165	184	762	1,280	-------	260	160	202	128	103	103	109
30	194	184	310	453	-------	245	160	188	128	103	103	109
31	2,100	-------	282	385	-------	216	-------	188	-------	103	103	-------

Monthly discharge, in second-feet, of South Fork of Obion River near Greenfield, Tenn., 1929–30

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
July 9-31	444	140	207	0.480	0.41
August	858	140	235	.545	.63
September	1,550	140	289	.671	.75
1929–30					
October	2,100	140	218	.506	.58
November	1,970	174	424	.984	1.10
December	1,440	174	384	.891	1.03
January	11,900	268	2,090	4.85	5.59
February	2,960	275	1,000	2.32	2.42
March	2,880	216	755	1.75	2.02
April	1,550	160	309	.717	.80
May	6,110	154	1,010	2.34	2.70
June	188	128	150	.348	.39
July	160	103	117	.271	.31
August	134	97	109	.253	.29
September	436	97	129	.299	.33
The year	11,900	97	558	1.29	17.56

OBION RIVER AT OBION, TENN.

LOCATION.—Chain gage at toll bridge on State highway 3, a quarter of a mile south of Obion, Obion County, and 7 miles below mouth of North Fork.

DRAINAGE AREA.—1,880 square miles.

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

EXTREMES.—Maximum discharge during period, 47,000 second-feet Jan. 11 (gage height, 31.9 feet); minimum, 311 second-feet Aug. 2, 6, 9, 26, 27, 29, 30, Sept. 7, 8, 1930 (gage height, 10.3 feet).

REMARKS.—Records fair. Some possibility of backwater from Mississippi River during extremely high stages on both rivers.

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

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1929				1929				1929			
1		881	420	11		2,450	1,940	21	543	488	488
2		1,010	403	12		2,530	1,580	22	488	471	471
3		947	420	13		2,670	1,210	23	471	454	471
4		684	420	14		2,720	1,240	24	454	454	471
5		562	471	15		2,640	1,510	25	543	1,100	471
6		488	663	16		2,300	1,380	26	524	1,140	524
7		925	925	17	1,040	1,650	969	27	471	771	524
8		1,910	1,630	18	881	1,010	684	28	471	621	505
9		2,180	1,960	19	837	642	600	29	454	488	488
10		2,380	1,960	20	642	524	524	30	524	437	471
								31	947	437	

Daily and monthly discharge, in second-feet, of Obion River at Obion, Tenn., 1929–30—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	454	1,560	621	2,320	3,470	2,720	1,280	581	1,040	1,310	326	326
2	454	2,150	581	2,250	3,140	2,640	1,470	562	642	2,200	311	341
3	454	2,320	581	2,320	2,980	2,530	1,860	581	562	1,470	341	341
4	454	2,480	600	2,450	3,100	2,200	2,610	705	524	903	326	356
5	488	2,610	600	2,560	3,330	1,770	3,330	903	505	454	341	326
6	524	2,640	621	2,560	4,910	1,440	3,420	793	505	437	326	326
7	562	2,500	771	2,720	5,550	1,240	3,470	663	505	420	326	326
8	524	1,910	1,080	3,470	5,280	2,300	3,200	581	488	403	326	326
9	505	1,350	1,330	10,800	4,700	2,500	2,920	581	488	403	326	386
10	488	969	1,280	32,800	4,090	2,810	2,350	705	488	403	341	454
11	471	771	1,100	45,600	3,580	2,950	1,910	1,380	488	403	326	621
12	454	771	969	44,200	3,170	2,780	1,440	2,010	471	386	326	600
13	454	881	881	39,100	3,040	2,890	925	1,820	471	471	326	663
14	454	1,820	903	30,900	2,980	2,560	815	2,060	471	437	341	642
15	454	2,250	1,040	25,400	3,520	2,400	771	2,250	524	420	386	505
16	454	2,450	1,080	17,600	4,020	1,910	771	2,400	663	386	471	420
17	454	2,500	1,120	11,700	3,950	1,510	749	2,450	771	386	562	403
18	454	2,450	1,670	7,500	3,820	2,010	749	2,640	663	386	581	371
19	437	2,200	2,480	5,280	3,470	2,840	815	2,810	581	386	403	356
20	454	1,630	2,720	4,420	3,170	3,630	859	3,470	543	371	371	356
21	471	1,260	3,140	3,690	2,920	4,600	815	4,800	524	356	341	341
22	621	859	3,330	3,470	2,530	4,700	727	6,860	505	356	341	356
23	837	749	3,200	3,170	2,220	4,420	684	8,900	454	356	341	326
24	793	727	2,860	2,810	1,960	4,020	642	4,700	454	356	326	341
25	642	727	2,420	2,890	1,910	3,690	642	4,020	437	420	326	371
26	543	727	2,030	2,720	2,250	3,380	621	3,630	437	420	326	356
27	505	705	1,740	2,610	2,420	3,140	600	3,280	437	386	326	341
28	505	705	1,740	2,720	2,580	2,890	581	2,670	403	371	326	341
29	524	705	2,130	2,840	-------	2,640	600	2,280	420	371	311	341
30	524	684	2,280	3,170	-------	2,180	600	1,910	420	341	326	341
31	859	-------	2,380	3,580	-------	1,740	-------	1,470	-------	341	326	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
July 17–31	1,040	454	619	0.329	0.18
August	2,720	437	1,220	.650	.75
September	1,960	403	860	.458	.51
1929-30					
October	859	437	525	.279	.32
November	2,640	684	1,540	.819	.91
December	3,330	581	1,590	.846	.98
January	45,600	2,250	10,600	5.64	6.50
February	5,550	1,910	3,360	1.79	1.86
March	4,700	1,240	2,740	1.46	1.68
April	3,470	581	1,410	.750	.84
May	8,900	562	2,400	1.28	1.48
June	1,040	403	529	.281	.31
July	2,200	341	533	.284	.33
August	581	311	355	.189	.22
September	663	326	397	.211	.24
The year	45,600	311	2,170	1.15	15.67

RUTHERFORD FORK OF OBION RIVER NEAR BRADFORD, TENN.

LOCATION.—Chain gage at bridge on old State highway 54, 5½ miles southwest of Bradford, Gibson County, and 17 miles above confluence with South Fork.
DRAINAGE AREA.—190 square miles.
RECORDS AVAILABLE.—July, 1929, to September, 1930.
EXTREMES.—Maximum discharge during period, 7,650 second-feet Jan. 9 (gage height, 18.10 feet); minimum, 13 second-feet Aug. 30, 1929 (gage height, 1.06 feet).
REMARKS.—Records fair. Discharge interpolated July 17–20, Sept. 18, 19, 1929.

Daily discharge, in second-feet, 1929–30

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1929				1929				1929			
1		59	26	11	107	28	36	21	27	40	35
2		32	27	12	69	24	33	22	29	36	37
3		33	31	13	37	24	36	23	26	32	36
4		33	32	14	37	26	39	24	61	26	35
5		26	36	15	34	35	35	25	35	22	39
6		48	35	16	37	44	31	26	28	20	40
7		1,690	32	17	35	38	29	27	25	18	36
8		317	36	18	33	46	30	28	24	16	34
9		186	38	19	31	46	31	29	70	14	31
10	52	149	39	20	29	42	32	30	353	18	32
								31	171	25	

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	30	850	42	77	132	218	86	31	47	32	18	25
2	31	625	44	317	146	181	156	34	42	31	20	26
3	27	317	44	171	139	146	1,280	52	45	31	20	25
4	32	178	36	114	181	139	485	135	45	29	21	25
5	41	86	29	100	920	132	300	73	48	29	20	24
6	28	53	32	82	366	250	149	42	52	28	20	25
7	27	52	77	3,040	250	870	107	41	47	28	19	31
8	26	47	107	5,870	202	353	86	44	41	28	19	51
9	27	39	86	7,330	167	217	76	178	41	26	19	64
10	26	37	74	7,000	146	249	68	705	39	24	20	224
11	25	48	64	1,410	132	645	69	233	41	25	20	94
12	28	53	58	630	266	266	61	100	44	105	20	52
13	27	875	56	1,730	1,850	164	54	900	47	36	20	34
14	26	485	59	1,060	750	114	49	525	47	28	23	31
15	26	121	50	492	384	100	47	233	41	24	31	30
16	22	114	53	298	250	100	42	93	51	24	380	32
17	22	85	73	202	181	107	65	114	44	26	280	29
18	23	82	194	167	153	1,850	73	5,940	41	25	62	27
19	25	74	233	139	153	765	59	4,240	44	24	22	24
20	25	68	142	125	146	371	49	1,140	41	26	20	24
21	31	54	85	188	139	164	47	233	37	25	24	24
22	28	54	72	298	132	128	45	37	32	24	27	24
23	26	55	61	218	181	114	47	320	32	22	23	24
24	27	53	61	188	167	283	42	206	31	32	24	25
25	25	53	72	125	153	217	40	109	32	24	25	25
26	26	55	70	111	730	142	38	83	32	22	25	24
27	28	55	107	1,350	402	107	35	67	32	20	24	23
28	26	52	408	750	266	93	32	66	31	20	24	24
29	27	48	217	402		85	32	72	31	20	19	24
30	36	48	100	202		86	31	68	31	20	19	24
31	2,240		73	139		80		56		18	20	

Monthly discharge, in second-feet, of Rutherford Fork of Obion River near Bradford, Tenn., 1929–30

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
July 10–31	353	24	61.4	0.323	0.26
August	1,690	14	103	.542	.62
September	40	26	34.0	.179	.20
1929–30					
October	2,240	22	98.8	.520	.60
November	875	37	161	.847	.94
December	408	29	92.9	.489	.56
January	7,330	77	1,130	5.95	6.86
February	1,850	132	324	1.71	1.78
March	1,850	80	282	1.48	1.71
April	1,280	31	125	.658	.73
May	5,940	31	522	2.75	3.17
June	51	31	40.3	.212	.24
July	105	18	28.3	.149	.17
August	380	18	42.8	.225	.26
September	224	23	37.9	.199	.22
The year	7,330	18	241	1.27	17.24

NORTH FORK OF OBION RIVER NEAR UNION CITY, TENN.

LOCATION.—Staff gage at bridge on State highway 22, 4½ miles southeast of Union City, Obion County, and 9 miles above confluence with Obion River.
DRAINAGE AREA.—490 square miles.
RECORDS AVAILABLE.—July, 1929, to September, 1930.
EXTREMES.—Maximum discharge during period, about 13,800 second-feet Jan. 10 (gage height, estimated, 19.7 feet); minimum, 115 second-feet July 22–24, 26–28, Aug. 6, Sept. 5, 1929 (gage height, 3.4 feet).
REMARKS.—Records fair to poor. Discharge estimated Jan. 10, Apr. 10–14.

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

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1929				1929				1929			
1		569	122	11		549	589	21	130	130	130
2		345	122	12		1,580	609	22	115	130	130
3		162	130	13		511	345	23	115	130	130
4		146	122	14		589	381	24	115	1,200	130
5		122	115	15		454	345	25	130	511	178
6		115	210	16		162	194	26	115	194	170
7		1,230	549	17		162	178	27	115	146	146
8		454	1,230	18	277	146	130	28	115	138	138
9		492	672	19	194	138	130	29	122	130	130
10		417	879	20	130	138	130	30	130	122	138
								31	130	122	

Daily and monthly discharge, in second-feet, of North Fork of Obion River near Union City, Tenn., 1929–30—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	130	1,270	170	226	226	589	210	170	162	210	130	130
2	130	1,140	186	1,470	311	511	1,230	170	162	210	130	130
3	130	980	178	1,690	435	492	4,780	162	154	178	130	162
4	130	454	178	511	3,320	492	1,540	328	154	154	130	130
5	162	328	210	328	5,440	473	609	210	154	146	130	130
6	162	210	345	311	3,250	473	549	194	194	138	130	122
7	146	194	473	1,470	1,090	473	417	178	162	138	130	122
8	138	178	569	9,580	879	454	243	162	162	130	130	122
9	130	170	294	12,600	609	435	210	154	162	130	130	122
10	130	210	226	13,800	328	417	210	277	154	130	130	130
11	130	210	243	10,900	260	492	200	511	154	122	130	130
12	130	202	226	8,050	210	363	200	492	146	122	130	138
13	138	569	294	7,380	2,170	277	200	784	146	122	130	138
14	130	2,170	381	5,100	1,090	260	200	1,200	146	130	130	146
15	130	1,400	417	4,270	609	243	210	399	146	130	130	138
16	130	831	473	3,720	511	210	226	328	260	130	130	130
17	130	294	473	929	363	194	210	226	243	130	130	130
18	122	243	3,630	651	328	260	210	589	243	130	130	130
19	122	210	4,990	260	260	3,720	202	2,980	162	130	130	130
20	130	202	1,430	226	210	2,210	202	2,310	162	130	130	130
21	162	194	651	929	210	609	194	454	154	130	130	130
22	146	194	473	1,120	226	381	194	260	154	130	130	130
23	154	186	328	1,030	311	311	194	226	146	130	130	130
24	130	194	311	178	435	328	194	194	146	130	130	130
25	130	186	294	146	311	492	194	194	146	130	130	130
26	130	186	277	138	2,120	454	194	194	146	130	130	130
27	130	194	277	260	1,360	417	194	186	138	130	130	130
28	130	194	904	2,680	855	345	186	186	138	130	130	130
29	146	186	630	1,650	-------	311	186	178	138	130	130	130
30	146	186	399	738	-------	243	178	178	130	130	130	130
31	530	-------	311	435	-------	226	-------	170	-------	130	130	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
July 18–31	277	115	138	0.282	0.15
August	1,580	115	369	.753	.87
September	1,230	115	287	.586	.65
1929–30					
October	530	122	149	.304	.35
November	2,170	170	446	.910	1.02
December	4,990	170	653	1.33	1.53
January	13,800	138	2,990	6.10	7.03
February	5,440	210	990	2.02	2.10
March	3,720	194	553	1.13	1.30
April	4,780	178	466	.951	1.06
May	2,980	154	459	.937	1.08
June	260	130	162	.331	.37
July	210	122	138	.282	.33
August	130	130	130	.265	.31
September	162	122	131	.267	.30
The year	13,800	122	606	1.24	16.78

SOUTH FORK OF FORKED DEER RIVER AT JACKSON, TENN.

LOCATION.—Staff gage at bridge on State highway 5, half a mile south of Jackson, Madison County.

DRAINAGE AREA.—574 square miles.

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

EXTREMES.—Maximum discharge during period, 16,000 second-feet Jan. 9, 10 (gage height, 19.00 feet); minimum discharge, 106 second-feet Aug. 3–13, 1930; minimum gage height, 1.58 feet July 9, 1929.

REMARKS.—Records fair. Discharge estimated Aug. 25 to Sept. 18, 1929, Apr. 2, 1930.

Daily discharge, in second-feet, 1929–30

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1929				1929				1929			
1	170	988	135	11	340	1,050	580	21	180	170	204
2	170	928	135	12	275	616	550	22	170	170	192
3	160	291	135	13	231	323	800	23	231	160	192
4	160	180	150	14	291	260	950	24	738	160	217
5	291	170	250	15	392	231	680	25	307	150	488
6	488	231	320	16	192	217	470	26	204	150	429
7	231	2,630	270	17	640	204	350	27	160	145	260
8	160	2,590	230	18	528	192	250	28	170	145	231
9	170	1,720	200	19	550	180	204	29	192	145	217
10	323	2,670	550	20	217	180	204	30	275	145	204
								31	392	140	------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	204	2,190	245	429	468	816	357	291	231	1,720	113	160
2	204	3,520	357	872	488	712	1,810	231	217	323	113	140
3	192	2,550	291	816	468	528	3,260	323	204	160	106	140
4	217	1,950	260	468	3,920	508	1,720	357	204	150	106	140
5	1,830	1,750	291	410	3,920	468	738	245	204	140	106	130
6	1,170	640	357	392	2,310	594	594	217	204	130	106	130
7	1,080	429	429	528	1,610	4,310	468	217	204	130	106	130
8	468	374	872	6,070	738	3,980	410	204	180	130	106	204
9	307	340	468	15,200	550	3,120	374	275	180	130	106	688
10	275	323	410	15,200	528	2,710	357	790	180	130	106	204
11	245	323	374	8,350	468	4,460	340	1,050	170	121	106	712
12	231	392	374	4,760	468	3,860	340	988	170	121	106	410
13	217	872	392	3,860	3,680	1,990	323	1,080	170	121	106	231
14	217	1,110	340	3,800	2,940	844	323	1,990	170	121	121	160
15	204	1,110	340	3,160	2,030	664	307	1,200	160	121	1,170	160
16	204	790	323	1,750	1,990	594	291	594	170	121	1,110	160
17	204	528	323	928	872	550	448	374	192	121	291	150
18	204	468	664	640	594	1,870	790	2,980	170	121	488	150
19	192	392	594	468	508	4,040	392	5,550	160	121	170	150
20	204	340	357	508	468	2,230	323	6,210	160	121	160	150
21	1,910	307	291	1,830	429	900	307	3,740	140	121	150	150
22	640	307	323	1,540	429	664	291	1,910	140	121	140	150
23	323	357	307	572	3,800	572	275	1,400	140	121	140	150
24	275	357	323	429	3,980	738	260	1,990	140	204	140	150
25	260	357	357	429	2,940	958	260	508	140	204	140	150
26	231	323	392	429	3,620	640	245	374	130	130	140	150
27	231	323	392	1,540	2,070	488	245	323	130	121	140	150
28	231	307	2,190	2,030	1,170	448	245	291	121	121	140	140
29	245	275	1,330	1,050	-------	429	231	275	121	121	140	140
30	572	231	664	550	-------	410	260	260	121	113	140	140
31	1,610	-------	508	508	-------	374	-------	231	-------	113	150	------

Monthly discharge, in second-feet, of South Fork of Forked Deer River at Jackson, Tenn., 1929–30

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
July	738	160	290	0.505	0.58
August	2,670	140	566	.986	1.14
September	950	135	335	.584	.65
1929-30					
October	1,910	192	471	.821	.95
November	3,520	231	784	1.37	1.53
December	2,190	245	488	.850	.98
January	15,200	392	2,570	4.48	5.16
February	3,980	429	1,690	2.94	3.06
March	4,460	374	1,470	2.56	2.95
April	3,260	231	553	.963	1.07
May	6,210	204	1,180	2.06	2.38
June	231	121	167	.291	.32
July	1,720	113	188	.328	.38
August	1,170	106	208	.362	.42
September	712	130	199	.347	.39
The year	15,200	106	828	1.44	19.59

SOUTH FORK OF FORKED DEER RIVER AT CHESTNUT BLUFF, TENN.

LOCATION.—Staff gage at highway bridge 1 mile west of Chestnut Bluff, Crockett County, and 12 miles above confluence with North Fork of Forked Deer River.

DRAINAGE AREA.—1,080 square miles.

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

EXTREMES.—Maximum discharge during period, 15,600 second-feet Jan. 11 (gage height, 20.2 feet); minimum, 195 second-feet Aug. 5–13, 1930 (gage height, 3.2 feet).

REMARKS.—Records fair.

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

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1929				1929				1929			
1	310	537	262	11	586	3,820	729	21	475	349	298
2	323	920	262	12	537	3,680	788	22	389	336	298
3	323	1,150	262	13	431	2,980	748	23	375	323	298
4	323	729	262	14	445	1,800	1,210	24	553	323	310
5	323	445	262	15	475	1,210	1,600	25	920	310	336
6	310	389	310	16	490	788	1,180	26	729	298	637
7	505	569	475	17	460	537	788	27	431	298	569
8	362	1,800	445	18	874	417	620	28	417	286	403
9	323	2,620	362	19	897	375	431	29	655	286	349
10	362	4,320	336	20	748	362	323	30	710	286	323
								31	586	274	------

Daily and monthly discharge, in second-feet, of South Fork of Forked Deer River at Chestnut Bluff, Tenn., 1929–30—Continued

Day	Oct.	Nov.	Dec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	310	2,370	389	1,210	1,150	4,500	586	349	403	375	206	239
2	310	3,160	403	1,040	944	3,340	655	375	362	1,120	206	239
3	298	3,400	460	1,380	830	1,970	2,020	349	349	748	206	228
4	323	3,680	445	1,420	3,160	1,420	2,920	475	336	362	206	217
5	809	3,900	389	1,040	3,610	1,180	3,340	490	323	274	195	217
6	1,760	4,060	417	830	3,980	993	2,740	362	323	250	195	206
7	1,640	3,470	490	1,380	4,320	2,980	1,600	323	323	239	195	217
8	1,420	1,720	710	5,950	4,230	3,680	1,150	310	310	239	195	217
9	968	944	1,070	10,800	3,820	4,060	874	323	298	228	195	537
10	620	788	874	15,600	2,120	4,320	691	586	298	228	195	788
11	445	729	710	14,100	1,300	4,700	586	1,800	286	228	195	620
12	375	620	603	13,200	1,040	4,800	521	2,370	286	228	195	748
13	349	809	553	13,800	2,680	4,910	490	2,270	286	228	195	673
14	336	2,070	521	12,900	3,400	4,700	475	2,470	274	217	206	389
15	323	2,270	475	9,600	3,680	3,750	460	2,800	274	217	403	298
16	323	2,070	460	7,120	3,820	3,160	445	2,370	286	206	1,520	286
17	323	1,880	460	5,660	3,820	1,720	431	1,480	323	206	1,560	262
18	310	1,270	637	4,700	2,980	1,760	655	4,700	310	206	1,020	250
19	310	1,040	993	3,400	1,680	3,040	920	6,260	274	206	748	239
20	310	809	1,020	1,450	1,270	3,470	637	7,900	262	206	431	239
21	490	655	710	1,240	1,040	3,680	490	7,900	262	206	274	239
22	1,210	553	521	1,640	874	3,750	431	6,940	250	206	239	239
23	1,120	521	475	1,760	1,100	2,800	389	6,420	250	206	228	239
24	655	537	431	1,100	2,320	1,720	389	5,950	250	217	228	239
25	475	521	417	788	2,980	1,640	375	5,660	250	274	217	239
26	389	521	460	729	3,610	1,600	362	4,910	250	286	217	250
27	375	505	521	1,360	3,980	1,270	349	2,420	239	228	217	250
28	362	490	1,240	2,470	4,320	1,020	349	1,360	228	217	217	250
29	362	460	2,020	2,740	-------	852	336	968	228	217	217	239
30	375	431	2,220	2,800	-------	788	336	673	228	206	217	239
31	874	-------	1,480	1,720	-------	673	-------	490	-------	206	217	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
July	920	310	505	0.468	0.54
August	4,320	274	1,060	.981	1.13
September	1,600	262	516	.478	.53
1929–30					
October	1,760	298	598	.554	.64
November	4,060	431	1,540	1.43	1.60
December	2,220	389	728	.674	.78
January	15,600	729	4,680	4.33	4.99
February	4,320	830	2,640	2.44	2.54
March	4,910	673	2,720	2.52	2.90
April	3,340	336	867	.803	.90
May	7,900	310	2,650	2.45	2.82
June	403	228	287	.266	.30
July	1,120	206	280	.259	.30
August	1,560	195	353	.327	.38
September	788	206	318	.294	.33
The year	15,600	195	1,470	1.36	18.48

MIDDLE FORK OF FORKED DEER RIVER NEAR ALAMO, TENN.

LOCATION.—Staff gage at highway bridge on State highway 54, 5 miles north of Alamo, Crockett County, and 15 miles above confluence with North Fork.
DRAINAGE AREA.—410 square miles.
RECORDS AVAILABLE.—July, 1929, to September, 1930.
EXTREMES.—Maximum discharge during period, 10,000 second-feet Jan. 8 (gage height, 13.94 feet); minimum, 71 second-feet several days in August, 1930 (gage height, 1.38 feet).
REMARKS.—Records fair. Discharge interpolated Mar. 8, 11–13.

Daily discharge, in second-feet, 1929–30

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1929				1929				1929			
1	-------	234	160	11	-------	2,010	160	21	-------	184	124
2	-------	118	160	12	-------	2,840	160	22	-------	184	124
3	-------	118	153	13	-------	541	217	23	-------	176	118
4	-------	105	153	14	-------	305	200	24	-------	168	118
5	-------	93	184	15	-------	269	184	25	-------	176	168
6	-------	118	400	16	-------	234	160	26	-------	176	138
7	-------	3,380	269	17	-------	200	168	27	-------	176	131
8	-------	3,080	234	18	-------	217	153	28	-------	168	124
9	-------	1,720	184	19	-------	200	146	29	184	168	124
10	-------	3,920	168	20	-------	200	131	30	690	160	124
								31	192	160	------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	124	5,350	118	234	217	480	192	324	153	1,600	76	82
2	118	2,920	118	604	269	362	217	208	153	176	76	82
3	118	1,320	111	480	200	324	3,080	176	153	168	71	82
4	124	440	118	362	4,250	287	1,450	625	146	153	71	76
5	305	251	111	440	3,380	251	1,210	324	138	138	71	76
6	111	124	146	400	1,600	217	500	208	168	99	71	76
7	111	105	184	964	1,060	2,700	305	160	153	99	71	76
8	111	99	324	8,150	480	1,160	269	146	138	93	71	87
9	111	234	200	7,330	400	790	234	324	138	87	71	168
10	105	234	184	6,950	287	420	208	756	131	87	71	87
11	105	168	160	5,630	217	406	153	646	131	87	71	269
12	111	153	160	5,090	305	391	192	562	131	234	71	168
13	124	2,090	146	4,080	3,770	377	192	176	131	111	71	99
14	118	1,110	153	2,460	1,600	362	184	778	124	93	71	87
15	118	440	153	1,680	1,160	287	184	324	118	87	870	87
16	105	287	153	1,290	460	287	176	208	118	87	217	93
17	105	217	160	646	420	251	176	192	118	87	480	87
18	105	192	234	420	381	2,260	400	5,630	118	82	118	87
19	105	160	217	381	324	1,060	305	8,150	118	82	93	87
20	105	153	200	362	287	964	192	3,920	111	87	87	87
21	520	138	184	1,290	287	916	176	2,050	168	82	76	87
22	324	153	160	824	287	324	176	668	168	82	71	87
23	176	138	153	824	287	251	160	847	168	87	71	87
24	138	131	153	440	1,010	217	184	801	124	87	71	87
25	124	124	160	324	964	440	176	305	111	82	71	93
26	118	124	192	324	1,110	362	176	251	105	82	76	93
27	131	131	184	2,580	1,060	287	146	208	105	82	76	93
28	131	124	1,320	1,720	604	251	146	192	99	82	76	93
29	124	124	400	1,210	-------	217	146	184	99	82	82	93
30	118	118	324	460	-------	208	146	176	99	76	76	93
31	2,840	-------	251	381	-------	192	-------	168	-------	76	82	------

Monthly discharge, in second-feet, of Middle Fork of Forked Deer River near Alamo, Tenn., 1929–30

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
August	3,920	93	703	1.71	1.97
September	400	118	168	.410	.46
1929–30					
October	2,840	105	232	.566	.65
November	5,350	99	578	1.41	1.57
December	1,320	111	220	.537	.62
January	8,150	234	1,880	4.59	5.29
February	4,250	200	953	2.32	2.42
March	2,700	192	558	1.36	1.57
April	3,080	146	382	.932	1.04
May	8,150	146	958	2.34	2.70
June	168	99	131	.320	.36
July	1,600	76	150	.366	.42
August	870	71	119	.290	.33
September	269	76	98.3	.240	.27
The year	8,150	71	521	1.27	17.24

HATCHIE RIVER BASIN

HATCHIE RIVER AT BOLIVAR, TENN.

LOCATION.—Staff gage at highway bridge on State highway 18, 300 feet upstream from Illinois Central Railroad bridge 2,000 feet below mouth of Spring Creek and 1 mile north of Bolivar, Hardeman County.

DRAINAGE AREA.—1,430 square miles.

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

EXTREMES.—Maximum discharge during period, 16,800 second-feet Jan. 9 (gage height, 16.18 feet); minimum, 134 second-feet Aug. 12–14, 1930 (gage height, 1.1 feet).

REMARKS.—Records fair.

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

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1929				1929				1929			
1		680	212	11		2,310	1,590	21		340	1,180
2		894	212	12		2,420	1,720	22		322	764
3		1,300	198	13		2,380	1,490	23		304	554
4		1,350	198	14		2,120	1,620	24	395	288	453
5		1,140	198	15		1,720	2,060	25	358	272	473
6		806	322	16		1,300	2,120	26	340	272	722
7		916	596	17		1,000	2,090	27	322	256	1,030
8		1,560	806	18		596	2,000	28	376	240	1,560
9		2,060	806	19		453	1,940	29	473	240	1,660
10		2,240	1,070	20		376	1,660	30	680	226	1,540
								31	680	212	

Daily and monthly discharge, in second-feet, of Hatchie River at Bolivar, Tenn., 1929–30—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	1,250	2,030	1,370	3,350	3,350	2,700	1,280	453	680	850	164	198
2	872	3,100	1,320	3,440	3,350	2,650	1,180	433	575	743	152	226
3	533	3,740	1,420	3,540	3,100	2,550	1,400	414	533	554	152	322
4	433	3,970	1,640	3,350	3,640	2,380	1,640	414	575	433	146	322
5	1,540	3,850	1,660	3,180	4,400	2,060	1,640	453	596	304	146	212
6	2,090	4,100	1,560	3,020	4,240	1,940	1,490	433	554	256	146	198
7	2,310	4,400	1,490	2,820	4,400	4,780	1,350	414	533	240	146	198
8	2,380	4,780	1,840	7,480	4,780	6,400	1,210	376	433	226	140	198
9	2,340	4,580	2,030	16,800	5,240	6,740	1,090	513	322	212	140	256
10	1,840	4,240	2,240	16,200	5,500	7,480	982	1,490	304	198	140	493
11	1,400	3,640	2,210	14,300	5,0[illegible]	11,800	916	2,700	322	226	140	1,210
12	938	2,960	2,120	11,200	4,580	11,800	872	2,820	304	240	134	1,840
13	638	3,100	1,920	11,200	5,240	8,860	828	2,700	304	212	134	2,180
14	513	3,740	1,720	10,600	4,780	7,480	806	3,540	288	198	134	2,240
15	453	4,580	1,520	7,480	4,240	6,400	785	3,740	288	177	850	2,240
16	414	5,000	1,370	7,480	4,240	5,500	743	3,540	288	170	1,490	1,970
17	395	5,500	1,300	6,400	4,100	4,780	743	3,440	340	164	1,720	1,250
18	358	5,780	1,320	5,780	4,100	4,240	916	4,100	340	158	1,640	764
19	340	6,080	1,760	5,500	3,970	3,350	1,000	5,240	340	158	1,370	513
20	340	5,780	1,940	5,500	3,740	3,260	960	4,240	304	158	1,250	322
21	473	5,500	2,030	5,780	3,180	3,100	894	3,850	272	152	894	395
22	785	4,780	2,000	5,500	2,600	3,100	806	3,740	256	152	596	1,520
23	1,180	4,240	1,820	4,780	2,500	3,100	638	3,740	240	158	433	1,920
24	1,210	3,540	1,620	4,240	2,500	3,180	575	3,850	226	226	617	2,090
25	960	2,890	1,490	4,100	2,460	3,100	554	3,850	226	212	575	2,030
26	701	2,280	1,440	3,740	2,460	2,820	533	3,640	212	226	433	1,540
27	533	2,000	1,490	3,540	2,460	2,420	513	3,350	212	226	395	1,090
28	473	1,840	2,120	3,540	2,550	2,090	493	2,500	198	272	226	850
29	453	1,740	2,460	3,440	-------	1,790	473	1,760	198	256	212	513
30	493	1,560	3,100	3,350	-------	1,560	473	1,140	184	212	198	322
31	1,030	-------	3,260	3,350	-------	1,400	-------	806	-------	184	198	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
July 24–31	680	322	453	0.317	0.09
August	2,420	212	987	.690	.80
September	2,120	198	1,090	.762	.85
1929–30					
October	2,380	340	957	.669	.77
November	6,080	1,560	3,840	2.69	3.00
December	3,260	1,300	1,830	1.28	1.48
January	16,800	2,820	6,260	4.38	5.05
February	5,500	2,460	3,810	2.66	2.77
March	11,800	1,400	4,350	3.04	3.50
April	1,640	473	926	.648	.72
May	5,240	376	2,380	1.66	1.91
June	680	184	348	.243	.27
July	850	152	263	.184	.21
August	1,720	134	487	.341	.39
September	2,240	198	981	.686	.77
The year	16,800	134	2,200	1.54	20.84

HATCHIE RIVER NEAR STANTON, TENN.

LOCATION.—Staff gage at bridge on State highway 1, a mile below Nashville, Chattanooga & St. Louis Railway bridge and 4 miles north of Stanton, Haywood County.

DRAINAGE AREA.—1,940 square miles.

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

EXTREMES.—Maximum discharge during period, about 36,400 second-feet Jan. 9 (gage height, 18.8 feet); minimum, 308 second-feet Aug. 12–15, 1930 (gage height, 2.1 feet).

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

Daily discharge, in second-feet, 1929–30

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1929				1929				1929			
1	-------	706	430	11	-------	1,750	880	21	-------	920	1,990
2	-------	742	430	12	-------	1,960	960	22	-------	760	1,960
3	-------	742	416	13	-------	2,210	1,160	23	-------	653	1,840
4	-------	800	416	14	-------	2,250	1,660	24	-------	619	1,440
5	-------	920	416	15	-------	2,250	1,840	25	-------	569	1,120
6	-------	980	445	16	-------	2,250	1,990	26	-------	537	1,020
7	-------	1,190	490	17	-------	2,170	1,990	27	619	521	980
8	-------	1,720	475	18	-------	1,960	2,050	28	602	490	1,000
9	-------	1,750	585	19	-------	1,390	2,020	29	670	475	1,020
10	-------	1,720	742	20	-------	1,160	2,020	30	900	460	1,200
								31	724	445	------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	1,290	2,780	3,780	2,170	4,600	4,020	3,050	800	3,560	445	402	402
2	1,390	4,290	3,230	2,730	4,390	3,700	2,580	780	2,880	490	374	388
3	1,390	4,720	2,680	2,880	4,110	3,420	2,410	760	1,780	670	360	388
4	1,340	4,390	2,210	3,050	7,360	3,230	2,530	760	1,240	800	347	388
5	1,660	4,200	1,960	3,170	6,100	3,170	2,450	742	1,040	800	347	416
6	2,080	4,020	1,810	3,350	6,100	3,170	2,290	724	940	706	334	460
7	2,020	3,860	1,900	3,630	6,100	3,860	2,140	706	860	619	334	445
8	2,080	3,860	2,110	10,800	5,470	5,230	2,020	724	800	569	321	416
9	2,110	3,860	2,210	33,400	5,230	4,860	1,870	900	760	505	321	402
10	2,110	3,860	2,210	27,500	5,030	5,470	1,720	1,690	724	475	321	402
11	2,140	4,020	2,210	22,700	4,860	8,950	1,540	3,050	688	445	321	445
12	2,170	4,200	2,250	18,000	5,230	10,200	1,420	3,700	670	430	308	553
13	2,140	4,600	2,290	17,100	6,480	11,500	1,320	3,700	653	430	308	742
14	1,900	5,030	2,370	16,200	8,390	11,500	1,240	3,860	636	430	308	1,040
15	1,440	5,230	2,410	14,500	8,390	10,800	1,190	4,020	602	430	308	1,360
16	1,090	5,030	2,410	12,200	7,860	8,950	1,140	4,020	602	416	402	1,540
17	900	4,720	2,250	10,800	6,480	7,860	1,120	4,110	585	388	706	1,690
18	780	4,600	2,080	9,540	5,760	7,860	1,120	5,230	585	388	920	1,810
19	724	4,390	2,020	7,860	5,030	8,950	1,220	9,540	585	374	1,190	1,750
20	688	4,490	1,930	7,360	4,720	7,860	1,240	11,500	585	374	1,360	1,460
21	688	4,720	1,870	6,900	4,600	6,480	1,240	10,800	585	360	1,360	1,040
22	742	5,470	1,900	6,480	4,490	5,760	1,220	7,860	569	360	1,290	820
23	820	6,100	1,990	6,900	4,720	4,860	1,160	6,480	553	360	1,140	742
24	860	6,480	2,080	6,480	5,230	4,490	1,090	5,230	537	360	940	880
25	900	6,100	2,110	6,480	5,030	4,200	1,000	4,720	521	374	742	1,160
26	920	5,760	2,110	6,100	5,030	3,940	940	4,490	505	402	619	1,460
27	960	5,230	2,080	6,100	5,030	3,780	880	4,390	490	416	537	1,660
28	1,060	4,860	2,290	6,480	4,490	3,630	860	4,200	475	416	475	1,720
29	960	4,490	2,580	5,760	-------	3,560	840	4,110	460	416	445	1,490
30	820	4,110	2,580	5,470	-------	3,490	800	4,020	445	416	430	1,160
31	940	-------	2,530	4,860	-------	3,290	-------	3,860	-------	430	416	------

Monthly discharge, in second-feet, of Hatchie River near Stanton, Tenn., 1929–30

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
July 27–31	900	602	703	0.362	0.07
August	2,250	445	1,200	.619	.71
September	2,050	416	1,160	.598	.67
1929–30					
October	2,170	688	1,330	.686	.79
November	6,480	2,780	4,650	2.40	2.68
December	3,780	1,810	2,270	1.17	1.35
January	33,400	2,170	9,580	4.94	5.70
February	8,390	4,110	5,580	2.88	3.00
March	11,500	3,170	5,870	3.03	3.49
April	3,050	800	1,520	.784	.87
May	11,500	706	3,920	2.02	2.33
June	3,560	445	864	.445	.50
July	800	360	468	.241	.28
August	1,360	308	580	.299	.34
September	1,810	388	954	.492	.55
The year	33,400	308	3,120	1.61	21.88

WOLF RIVER BASIN

WOLF RIVER AT ROSSVILLE, TENN.

LOCATION.—Chain gage at county highway bridge half a mile north of Rossville, Fayette County, and 8 miles downstream from Moscow and mouth of North Fork.

DRAINAGE AREA.—531 square miles.

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

EXTREMES.—Maximum discharge during period, 16,400 second-feet Jan. 9 (gage height, 11.32 feet); minimum, 140 second-feet Aug. 12–14, 1930 (gage height, 2.24 feet).

REMARKS.—Records fair.

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

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1929				1929				1929			
1		604	174	11		306	346	21		182	182
2		920	174	12		240	210	22		182	182
3		960	174	13		240	200	23		182	182
4		448	174	14		220	220	24		182	182
5		250	174	15		210	250	25	168	182	182
6		220	230	16		200	250	26	168	182	182
7		210	250	17		190	230	27	176	174	210
8		210	282	18		190	210	28	192	174	220
9		240	282	19		182	200	29	384	174	220
10		332	416	20		182	190	30	294	174	200
								31	230	174	

Daily and monthly discharge, in second-feet, of Wolf River at Rossville, Tenn., 1929–30—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	190	1,570	240	504	472	426	260	192	200	160	146	152
2	182	1,730	260	488	370	356	260	192	200	160	146	146
3	174	1,570	270	504	440	318	330	210	200	160	146	146
4	190	1,310	270	398	1,900	306	330	240	192	168	146	146
5	374	1,430	270	384	2,740	294	306	200	192	160	146	146
6	306	1,570	282	342	2,280	426	294	200	192	160	146	146
7	332	1,210	282	504	2,080	3,000	270	200	184	152	146	146
8	318	552	588	8,900	1,430	5,250	260	220	184	176	146	146
9	250	294	472	16,400	800	3,300	250	270	184	260	146	146
10	200	260	440	11,400	456	2,080	240	412	184	168	146	282
11	190	240	412	3,600	370	1,730	230	570	184	168	146	1,900
12	182	440	370	2,280	342	1,430	230	588	176	168	140	2,500
13	174	940	318	1,900	1,210	1,210	230	760	176	160	140	1,130
14	166	1,310	282	1,730	1,570	800	230	2,280	176	160	140	570
15	166	1,210	270	1,430	1,310	536	230	2,500	176	152	146	440
16	166	1,060	250	1,430	800	398	220	2,080	176	152	152	306
17	166	1,570	250	1,570	642	356	240	1,900	176	152	168	220
18	166	1,430	440	1,060	456	384	260	2,500	176	152	176	192
19	160	840	456	606	356	642	220	4,350	168	152	176	184
20	160	472	356	398	318	570	240	3,300	168	152	168	184
21	160	318	318	680	306	520	220	1,900	168	152	176	176
22	166	294	294	800	306	504	210	1,210	168	152	176	176
23	182	270	250	642	318	384	210	660	168	152	160	184
24	182	260	250	570	318	342	200	488	168	152	152	184
25	182	260	250	456	330	356	192	282	168	384	146	184
26	166	270	250	370	426	2,280	192	250	168	356	146	184
27	160	270	318	840	398	318	192	240	160	184	146	184
28	160	270	1,570	1,310	398	294	192	230	160	168	146	184
29	160	260	1,430	1,210	------	282	192	220	160	160	146	176
30	160	250	1,130	940	------	282	192	220	160	152	146	176
31	552	------	800	680	------	260	------	210	------	152	152	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
July 25–31	384	168	230	0.433	0.11
August	960	174	275	.518	.60
September	416	174	219	.412	.46
1929-30					
October	552	160	208	.392	.45
November	1,730	240	791	1.49	1.66
December	1,570	240	440	.829	.96
January	16,400	342	2,080	3.92	4.52
February	2,740	306	826	1.56	1.62
March	5,250	260	956	1.80	2.08
April	330	192	237	.446	.50
May	4,350	192	938	1.77	2.04
June	200	160	177	.333	.37
July	384	152	176	.331	.38
August	176	140	152	.286	.33
September	2,500	146	368	.693	.77
The year	16,400	140	613	1.15	15.68

ST. FRANCIS RIVER BASIN

ST. FRANCIS RIVER AT FISK, MO.

LOCATION.—Chain gage in SW. ¼ sec. 28, T. 25 N., R. 8 E., at bridge on State highway 60 at Fisk. Zero of gage is 307.94 feet above mean sea level (1929 adjustment of level net).

DRAINAGE AREA.—1,370 square miles.

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

EXTREMES.—Maximum discharge during year ending September 30, 1930, 30,700 second-feet Jan. 16 (gage height, 26.47 feet); minimum discharge, 125 second-feet Aug. 5, 7–13; minimum gage height, 1.80 feet Aug. 9-11.

1927–1930: Maximum and minimum discharges, those of 1930.

Maximum stage known, 28.0 feet Apr. 18, 1927 (discharge, about 50,000 second-feet).

REMARKS.—Records fair. Discharge estimated Oct. 1, 2, 4, 5, 8, 9, 1927.

Daily discharge, in second-feet, 1927–1930

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1927-28												
1	672	270	616	1,320	1,250	1,520	1,240	2,240	770	8,600	425	1,220
2	644	270	588	1,170	1,120	1,410	1,240	1,950	756	6,960	770	1,160
3	560	281	728	1,000	1,030	1,330	1,040	1,730	970	4,180	770	784
4	560	281	854	910	970	1,250	1,030	1,560	2,880	3,350	728	658
5	560	281	826	882	970	1,220	1,000	1,400	4,120	2,550	686	560
6	560	281	756	770	1,020	1,190	3,210	1,330	4,120	2,350	896	504
7	546	270	672	770	1,330	1,140	6,360	1,160	3,500	2,140	854	464
8	540	386	644	756	1,560	1,060	12,400	1,060	2,880	1,900	770	451
9	538	1,480	658	742	1,660	1,160	10,400	1,000	3,130	1,780	672	425
10	532	2,040	714	728	1,640	1,220	7,500	910	6,060	1,730	588	399
11	490	1,820	770	714	1,510	1,160	5,240	854	13,000	1,690	560	386
12	560	1,640	882	686	1,380	1,120	3,600	798	13,600	1,570	518	360
13	728	1,490	1,220	686	1,320	1,090	2,980	742	10,400	1,510	464	348
14	616	1,350	6,060	686	1,280	1,060	2,520	714	11,400	1,430	438	336
15	518	1,220	25,400	658	1,250	1,000	2,140	686	18,600	1,270	399	325
16	464	1,710	21,800	644	2,040	1,480	1,880	686	14,200	1,120	386	314
17	438	2,580	14,800	630	2,300	1,920	1,660	658	9,400	1,020	373	303
18	412	2,800	7,800	742	2,090	1,970	1,460	658	6,960	940	560	292
19	386	2,400	6,060	1,190	1,880	2,020	1,280	658	8,200	1,000	700	292
20	360	2,020	3,950	1,800	1,680	2,240	1,630	658	10,400	970	728	281
21	348	1,660	3,050	3,210	1,490	2,550	2,370	1,000	9,900	925	742	270
22	336	1,430	2,490	3,050	1,330	2,610	6,200	1,300	21,000	882	1,040	270
23	325	1,200	2,300	2,460	1,330	2,370	9,400	1,660	21,800	882	1,160	260
24	314	1,020	2,020	2,090	2,140	2,140	9,400	1,800	16,000	742	1,320	260
25	303	925	1,820	2,000	2,400	1,860	8,200	1,590	11,400	658	1,410	250
26	292	840	1,750	2,170	2,300	6,520	6,360	1,270	8,200	616	1,350	242
27	292	798	1,490	2,220	2,040	1,480	4,370	1,020	5,540	546	1,490	250
28	292	728	1,350	2,040	1,840	1,330	3,550	854	4,240	518	1,300	250
29	281	686	1,440	1,780	1,680	1,220	2,840	728	5,930	477	1,020	250
30	281	658	1,480	1,560	-------	1,110	2,610	714	7,800	451	1,120	246
31	270	-------	1,300	1,380	-------	1,060	-------	700	-------	438	1,320	-------

Daily discharge, in second-feet, of St Francis River at Fisk, Mo., 1927–1930—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	242	546	4,120	1,000	3,050	7,500	1,400	1,190	910	475	366	223
2	242	1,080	4,580	896	2,640	5,670	1,570	1,920	910	568	344	223
3	250	1,730	3,500	854	2,300	4,240	1,680	2,800	850	540	344	214
4	250	1,590	2,770	826	2,040	4,180	1,970	4,660	1,140	488	322	214
5	250	1,360	2,910	770	1,880	4,820	4,060	5,670	1,200	436	311	214
6	399	1,120	2,640	882	1,760	4,060	4,660	4,900	1,040	449	300	214
7	281	955	2,370	970	1,570	3,250	3,750	6,200	895	436	311	232
8	270	826	2,240	1,060	1,510	2,800	3,020	9,400	820	449	344	241
9	270	742	1,760	925	1,400	2,460	3,600	14,200	792	449	462	250
10	260	658	1,750	1,250	1,300	2,190	6,720	11,900	895	436	568	260
11	270	616	1,570	1,380	1,190	1,900	9,900	9,000	880	568	568	241
12	270	574	1,250	1,360	1,080	1,680	10,900	6,720	820	596	582	280
13	260	546	1,360	1,300	1,000	1,630	9,000	5,670	1,020	501	638	280
14	260	518	2,000	1,240	970	2,400	7,200	8,200	4,740	488	680	338
15	260	490	3,090	1,190	940	3,700	6,360	16,600	8,200	462	652	388
16	464	1,220	3,210	1,110	910	6,960	6,960	17,900	8,200	554	596	366
17	1,430	1,820	3,650	1,300	910	7,800	8,200	12,400	5,930	1,880	488	344
18	1,460	1,970	5,930	2,190	910	7,200	7,800	8,200	3,900	3,950	410	344
19	1,160	2,070	7,800	3,500	882	6,060	6,200	5,930	2,560	3,800	388	366
20	882	1,900	7,500	4,980	868	4,510	4,580	4,440	1,980	3,650	344	322
21	714	1,710	6,060	4,980	854	3,400	3,550	3,600	1,590	1,590	333	300
22	616	1,430	4,060	4,300	826	2,880	3,020	2,880	1,300	1,220	300	290
23	630	1,300	3,170	3,350	826	2,400	2,580	2,320	1,030	925	300	280
24	616	1,120	2,350	3,550	955	2,090	2,190	1,920	895	736	290	280
25	588	970	1,970	6,720	1,330	1,750	1,920	1,710	850	610	280	260
26	490	854	1,820	9,900	3,350	1,680	1,900	1,730	806	554	270	250
27	451	728	1,630	12,400	6,960	1,560	1,750	1,670	694	514	260	250
28	438	742	1,440	10,400	8,600	1,400	1,590	1,480	638	475	260	241
29	451	770	1,250	7,800	-------	1,320	1,430	1,300	596	436	250	241
30	451	1,280	1,190	6,520	-------	1,350	1,280	1,170	568	388	241	241
31	490	-------	1,080	3,900	-------	1,120	-------	1,030	-------	377	232	------
1929–30												
1	232	322	300	835	1,060	5,340	820	388	223	156	130	142
2	223	449	300	1,390	1,090	3,850	792	388	214	163	130	223
3	223	462	280	1,770	1,220	2,700	792	366	214	163	130	214
4	260	722	280	2,200	1,950	2,100	850	355	205	163	130	177
5	241	708	280	2,150	4,370	1,770	850	355	214	163	125	156
6	250	680	280	2,150	7,500	1,730	835	355	205	156	130	149
7	260	610	290	2,230	7,500	1,520	850	344	205	156	125	142
8	250	554	300	5,930	6,060	1,850	820	322	205	156	125	149
9	250	488	322	8,600	4,660	2,500	750	322	198	163	125	156
10	241	475	333	8,600	3,500	2,500	708	322	191	170	125	170
11	232	436	333	7,200	2,740	2,200	666	410	177	163	125	177
12	232	436	333	6,720	2,320	1,950	624	388	191	163	125	184
13	241	436	333	6,960	2,150	1,630	596	344	191	156	125	191
14	241	410	355	10,400	1,880	1,460	568	322	198	156	130	184
15	232	568	514	23,600	1,670	1,260	568	322	191	149	135	191
16	241	554	1,000	28,500	1,690	1,150	610	322	191	142	149	205
17	241	388	2,100	20,200	1,540	985	624	322	191	142	163	223
18	241	377	3,400	10,900	1,370	880	624	300	191	142	170	223
19	250	377	5,240	6,200	1,200	1,090	596	300	184	142	156	214
20	250	355	5,540	4,510	1,060	1,030	554	290	184	142	149	205
21	250	344	4,440	3,400	1,020	970	527	280	177	142	149	184
22	260	344	3,210	2,880	1,000	910	514	270	184	142	142	184
23	250	333	2,840	2,350	985	880	514	270	177	142	135	177
24	260	333	1,830	2,020	985	850	462	260	170	142	142	191
25	241	322	1,500	1,650	1,040	850	449	260	170	142	135	198
26	250	322	1,370	1,500	1,540	925	322	266	163	142	130	205
27	241	322	1,220	1,320	4,180	895	322	250	163	142	130	191
28	250	322	1,060	1,300	6,520	895	322	241	163	142	135	191
29	260	311	1,000	1,250	-------	955	410	241	156	142	135	184
30	270	300	940	1,150	-------	880	388	241	156	135	135	184
31	270	-------	910	1,100	-------	865	-------	223	-------	130	130	------

Monthly discharge, in second-feet, of St. Francis River at Fisk, Mo., 1927–1930

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1927–28					
October	728	270	452	0.330	0.38
November	2,800	270	1,160	.847	.94
December	25,400	588	3,750	2.74	3.16
January	3,210	630	1,340	.978	1.13
February	2,400	970	1,640	1.20	1.25
March	6,520	1,000	1,670	1.22	1.41
April	12,400	1,000	4,170	3.04	3.39
May	2,240	658	1,100	.803	.93
June	21,800	756	8,570	6.26	6.98
July	8,600	438	1,780	1.30	1.50
August	1,490	373	824	.601	.69
September	1,220	242	414	.302	.34
The year	25,400	242	2,230	1.63	22.14
1928–29					
October	1,460	242	496	.362	.42
November	2,070	490	1,110	.810	.90
December	7,800	1,080	2,970	2.17	2.50
January	12,400	770	3,320	2.42	2.79
February	8,600	826	1,890	1.38	1.44
March	7,800	1,120	3,420	2.50	2.88
April	10,900	1,280	4,360	3.18	3.55
May	17,900	1,030	5,760	4.20	4.84
June	8,200	568	1,890	1.38	1.54
July	3,950	377	935	.682	.79
August	680	232	388	.283	.33
September	388	214	274	.200	.22
The year	17,900	214	2,240	1.64	22.20
1929–30					
October	270	223	246	.180	.21
November	722	300	435	.318	.35
December	5,540	280	1,370	1.00	1.15
January	28,500	835	5,840	4.26	4.91
February	7,500	985	2,640	1.93	2.01
March	5,340	850	1,590	1.16	1.34
April	850	322	611	.446	.50
May	410	223	311	.227	.26
June	223	156	188	.137	.15
July	170	130	150	.109	.13
August	170	125	135	.099	.11
September	223	142	185	.135	.15
The year	28,500	125	1,140	.832	11.27

ST. FRANCIS RIVER AT MARKED TREE, ARK.

LOCATION.—Staff gage in sec. 35, T. 11 N., R. 6 E., at Marked Tree.
RECORDS AVAILABLE.—September, 1927, to September, 1930.
EXTREMES.—Maximum stage during year, 18.7 feet Feb. 4–6; minimum, 0.6 foot Oct. 28, Aug. 31, Sept. 1–11, 17–30.
1927–1930: Maximum stage, that of Feb. 4–6, 1930; minimum, that of Oct. 28, 1929; Aug. 31, Sept. 1–11, 17–30, 1930.
REMARKS.—Records good. Daily discharge not determined. Gage-height record published by United States Weather Bureau.

Discharge measurements, 1929–30

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 30	2.14	611	June 2	4.60	1,310
Feb. 16	17.80	3,530	Sept. 12	.65	216

ST. FRANCIS RIVER FLOODWAY NEAR MARKED TREE, ARK.

LOCATION.—Staff gage in SE. ¼ sec. 10, T. 11 N., R. 6 E., at dam of Poinsett County Drainage District 7 near Marked Tree.

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

EXTREMES.—Maximum discharge during year, 20,200 second-feet Jan. 21–23 (gage height, 30.7 feet); minimum, 120 second-feet Sept. 6–8 (gage height, 10.4 feet).

1927–1930: Maximum discharge, 21,400 second-feet July 5–9, 1928 (gage height, 31.2 feet); minimum, that of Sept. 6–8, 1930.

REMARKS.—Records fair. Gage-height record furnished by Poinsett County Drainage District 7.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	430	405	680	4,000	19,200	10,000	4,970	1,500	1,580	480	260	205
2	430	455	680	4,140	18,600	9,560	4,760	1,460	1,460	480	260	205
3	405	530	655	4,140	18,200	8,900	4,620	1,420	1,360	505	245	205
4	380	555	630	4,070	18,200	8,500	4,480	1,420	1,280	505	245	205
5	530	580	605	4,000	17,700	7,940	4,340	1,420	1,180	505	235	125
6	555	605	605	4,000	17,400	7,620	4,200	1,420	1,150	480	225	120
7	555	605	630	4,140	17,400	7,480	4,070	1,390	1,060	455	215	120
8	555	630	655	4,480	17,200	7,340	3,940	1,320	970	430	215	120
9	530	630	680	4,880	17,000	7,340	3,880	1,390	940	430	205	125
10	505	630	680	5,620	16,500	7,340	3,740	1,540	910	430	205	125
11	430	680	705	6,960	16,500	7,480	3,620	1,830	880	405	205	185
12	430	655	705	8,900	16,000	7,340	3,440	1,920	850	380	205	185
13	430	730	705	11,400	15,800	7,200	3,320	2,010	760	380	205	205
14	430	760	705	13,100	15,500	7,080	3,140	2,300	760	360	175	215
15	430	790	730	14,800	15,300	6,840	3,040	2,500	730	340	185	205
16	405	850	760	16,500	15,000	6,620	2,520	2,550	730	320	195	195
17	405	910	850	17,900	14,800	6,400	2,820	2,550	730	320	205	195
18	405	940	970	18,900	14,300	6,200	2,700	2,600	730	305	215	235
19	405	940	1,000	19,400	14,100	6,100	2,550	2,870	790	305	235	215
20	405	940	1,180	19,900	13,800	5,900	2,450	2,980	760	290	245	205
21	405	910	1,500	20,200	13,600	5,800	2,350	3,090	760	290	225	205
22	405	850	2,010	20,200	13,100	5,800	2,200	3,090	705	290	195	195
23	405	820	2,550	20,200	12,600	5,710	2,100	3,090	680	275	165	175
24	405	790	2,520	19,900	12,400	5,710	1,960	2,980	655	275	145	195
25	405	790	3,200	19,900	11,900	5,620	1,880	2,870	605	260	130	195
26	405	760	3,440	19,900	11,400	5,440	1,780	2,760	580	260	125	205
27	760	730	3,620	19,900	11,000	5,440	1,740	2,600	555	260	125	215
28	790	730	3,810	19,900	10,500	5,360	1,660	2,450	530	260	215	215
29	360	730	3,940	19,900	------	5,280	1,580	2,250	530	260	215	215
30	360	705	4,000	19,600	------	5,120	1,540	2,010	530	260	205	225
31	380	------	4,000	19,200	------	5,040	------	1,780	------	260	205	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	790	360	456	28,000
November	940	405	720	42,800
December	4,000	605	1,590	97,800
January	20,200	4,000	13,200	812,000
February	19,200	10,500	15,200	844,000
March	10,000	5,040	6,760	416,000
April	4,970	1,540	3,050	181,000
May	3,090	1,320	2,170	133,000
June	1,580	530	858	51,100
July	505	260	357	22,000
August	260	125	204	12,500
September	235	120	188	11,200
The year	20,200	120	3,660	2,650,000

LITTLE RIVER DITCH 81 NEAR KENNETT, MO.

LOCATION.—Chain gage in NE. ¼ sec. 4, T. 18 N., R. 10 E., at bridge on State highway 84, 4 miles east of Kennett. Zero of gage is about 240 feet above mean sea level.

RECORDS AVAILABLE.—October, 1926, to September, 1930. From September, 1921, to September, 1926, at Kirk, 1¼ miles upstream.

EXTREMES.—Maximum discharge during year, 1,770 second-feet Jan. 10, 14 (gage height, 11.38 feet); minimum, 42 second-feet Sept. 5–8 (gage height, 2.31 feet).

1927–1930: Maximum discharge, 2,760 second-feet Apr. 21, 1927 (gage height, 15.11 feet); minimum, that of Sept. 5–8, 1930.

REMARKS.—Records good. Discharge estimated Mar. 14.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	100	95	179	380	261	205	129	123	95	75	48
2	80	106	95	233	380	247	205	129	123	95	70	45
3	80	112	95	414	397	233	233	117	117	90	66	47
4	85	106	95	318	640	233	247	117	117	95	66	43
5	90	95	95	289	1,350	233	233	117	117	95	66	42
6	90	95	95	275	1,070	219	205	117	112	90	62	42
7	90	95	95	431	800	233	205	117	112	90	62	42
8	90	95	100	1,300	640	261	192	117	112	90	62	42
9	85	95	95	1,640	560	261	179	117	112	85	57	43
10	85	90	95	1,770	485	233	179	123	112	85	57	43
11	85	95	95	1,540	414	233	179	166	106	85	53	47
12	85	95	90	1,230	397	219	166	303	106	80	57	47
13	85	106	90	1,670	414	205	160	205	106	80	57	48
14	85	129	100	1,770	414	198	160	192	106	80	62	47
15	85	135	117	1,720	380	192	160	166	100	85	57	45
16	80	129	129	1,420	348	192	153	160	106	85	57	53
17	80	123	205	1,180	318	192	153	153	100	85	70	49
18	80	117	380	1,000	289	219	160	160	100	85	66	48
19	80	112	485	840	275	303	153	179	100	85	62	48
20	80	106	380	920	261	261	147	179	100	85	57	48
21	85	106	318	740	261	247	147	160	100	85	53	47
22	85	106	275	700	247	233	147	153	100	85	53	45
23	85	106	261	680	247	205	147	153	100	85	53	43
24	85	106	233	720	233	233	147	147	95	85	53	47
25	85	100	219	760	233	261	141	141	95	90	53	62
26	85	100	205	580	261	289	141	141	95	85	53	62
27	85	100	205	485	318	261	141	135	90	75	49	53
28	85	100	205	522	275	233	141	129	90	70	45	49
29	85	95	205	541	------	233	129	123	90	70	45	49
30	80	95	192	485	------	219	129	123	90	70	45	48
31	85	------	179	414	------	205	------	123	------	70	45	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	90	80	84.4	May	303	117	148
November	135	90	105	June	123	90	104
December	485	90	178	July	95	70	84.4
January	1,770	179	863	August	75	45	57.7
February	1,350	233	438	September	62	42	47.4
March	303	192	234				
April	247	129	169	The year	1,770	42	209

LITTLE RIVER DITCH 1 NEAR KENNETT, MO.

LOCATION.—Chain gage in NE. ¼ sec. 4, T. 18 N., R. 10 E., at bridge on State highway 84, 4 miles east of Kennett. Zero of gage is about 240 feet above mean sea level.

RECORDS AVAILABLE.—October, 1926, to September, 1930. From September, 1921, to September, 1926, at Kirk, 1¼ miles upstream.

EXTREMES.—Maximum discharge during year, 5,040 second-feet Jan. 15 (gage height, 13.24 feet); minimum discharge, 18 second-feet Sept. 8, 21–23; minimum gage height, 2.62 feet Sept. 8.

1926–1930: Maximum discharge, 7,520 second-feet Apr. 25, 1927 (gage height, 16.56 feet); minimum discharge and gage height, those of Sept. 8, 21–23, 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	49	75	64	332	760	525	290	152	110	64	36	25
2	49	82	89	405	800	495	332	140	105	71	33	21
3	49	82	114	800	840	435	360	136	101	58	31	21
4	49	71	131	760	1,220	435	405	136	101	55	31	20
5	58	64	114	620	3,290	405	375	127	97	55	31	20
6	49	61	97	555	3,110	375	346	127	95	52	31	19
7	49	61	64	840	2,660	435	346	140	95	52	31	19
8	46	58	61	2,940	1,900	495	304	140	89	58	29	18
9	46	55	64	3,770	1,400	495	290	140	88	49	29	21
10	46	55	61	4,510	1,140	465	276	140	80	46	29	21
11	46	61	61	4,510	920	435	263	175	82	43	27	21
12	46	58	61	4,320	840	405	250	224	80	43	27	21
13	46	71	61	4,840	840	375	237	212	76	43	25	21
14	46	114	71	4,970	840	346	224	200	78	43	27	21
15	46	114	93	5,040	800	318	212	187	71	43	31	21
16	46	101	101	4,840	725	318	212	175	78	43	29	23
17	46	93	140	4,320	655	304	224	152	71	43	36	21
18	46	86	525	3,230	620	332	212	175	68	43	31	20
19	46	82	1,040	2,280	555	435	200	212	66	43	27	20
20	46	78	840	1,750	525	495	200	200	64	41	25	20
21	49	75	620	1,450	495	435	200	175	64	40	25	18
22	49	75	495	1,320	465	375	200	175	63	41	25	18
23	43	68	465	1,220	465	360	187	175	58	40	25	18
24	43	68	405	1,090	465	375	187	163	58	40	25	20
25	43	68	360	920	435	465	175	152	58	40	25	21
26	43	68	360	760	465	620	175	140	58	40	25	21
27	46	68	360	725	585	525	163	140	58	40	23	20
28	46	68	360	960	555	465	163	131	56	40	23	20
29	49	64	346	1,220	------	435	163	122	56	33	21	20
30	46	61	346	1,090	------	375	163	116	55	36	21	20
31	49	------	346	880	------	346	------	110	------	36	21	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	58	43	47.0	May	224	110	158
November	114	55	73.5	June	110	55	76.0
December	1,040	61	268	July	71	33	45.6
January	5,040	332	2,170	August	36	21	27.6
February	3,290	435	1,010	September	25	18	20.3
March	620	304	423				
April	405	163	244	The year	5,040	18	378

LITTLE RIVER DITCH 66 NEAR KENNETT, MO.

LOCATION.—Chain gage in NE. ¼ sec. 4, T. 18 N., R. 10 E., at bridge on State highway 84, 4 miles east of Kennett. Zero of gage is about 240 feet above mean sea level.

RECORDS AVAILABLE.—October, 1926, to September, 1930. From September, 1921, to September, 1926, at Kirk, 1¼ miles upstream.

EXTREMES.—Maximum discharge during year, 3,440 second-feet Jan. 14, 15 (gage height, 16.42 feet); minimum discharge, 26 second-feet Sept. 5–8; minimum gage height, 2.60 feet Sept. 6–8.

1926–1930: Maximum discharge, 3,650 second-feet Apr. 25, 1927 (gage height, 17.69 feet); minimum discharge and gage height, those of Sept. 5–8, 1930.

REMARKS.—Records good. Discharge estimated Oct. 3. Little River ditch 66–A is an auxiliary to ditch 66, the two ditches being separated by a low, narrow bank and interconnected by cut-offs. Above stage of 6.2 feet part of the flow is carried by ditch 66–A, and above stage of 13 feet the two ditches in the vicinity of the gage unite to form one continuous body of water. To determine the discharge of each ditch the division between them is taken at the top of the bank that separates them during 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	80	104	123	328	670	651	404	202	130	74	40	31
2	80	104	137	366	670	575	423	194	130	74	37	28
3	80	152	160	727	727	499	423	194	123	68	36	29
4	80	160	194	1,120	957	480	480	176	123	63	36	27
5	92	144	185	917	1,980	480	461	176	116	63	35	26
6	92	137	168	670	2,540	442	442	176	116	63	35	26
7	86	137	130	708	2,350	461	404	168	116	63	34	26
8	80	130	130	1,440	2,040	537	385	168	110	59	34	26
9	80	123	130	1,440	1,580	651	347	168	110	52	33	28
10	80	123	137	3,170	1,180	613	328	176	104	48	33	29
11	80	123	137	3,310	957	537	328	202	104	48	32	31
12	80	116	123	3,220	841	499	310	274	98	48	32	29
13	80	137	123	3,310	803	461	310	292	98	52	32	29
14	74	152	137	3,440	803	423	292	274	98	52	37	28
15	74	185	168	3,440	803	404	292	256	92	48	36	28
16	74	194	202	3,350	727	385	292	229	98	48	35	30
17	74	185	347	3,080	651	366	274	220	98	48	40	28
18	74	185	575	2,800	613	385	292	220	92	48	33	30
19	74	176	957	2,280	594	442	274	220	86	48	31	29
20	74	168	1,060	1,680	537	499	256	238	86	44	31	30
21	74	152	765	1,340	537	499	256	220	80	44	31	30
22	80	152	575	1,080	518	442	256	211	80	41	31	30
23	80	144	518	937	499	404	238	211	74	41	31	30
24	80	144	442	822	499	423	229	194	74	44	30	32
25	80	144	404	727	499	480	220	176	68	44	29	33
26	80	130	385	670	518	689	211	168	68	44	28	33
27	80	137	366	651	670	632	211	160	63	40	28	41
28	80	137	366	746	746	556	211	160	63	39	28	37
29	80	130	366	841	-------	499	211	152	63	39	28	35
30	80	130	347	803	-------	461	202	144	63	37	28	33
31	80	-------	347	727	-------	423	-------	137	-------	37	28	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	92	74	79.4	May	292	137	199
November	194	104	144	June	130	63	94.1
December	1,060	123	329	July	74	37	50.4
January	3,440	328	1,620	August	40	28	32.6
February	2,540	499	947	September	41	26	30.1
March	689	366	493				
April	480	202	309	The year	3,440	26	358

LITTLE RIVER DITCH 66-A NEAR KENNETT, MO.

LOCATION.—Chain gage in NE. ¼ sec. 4, T. 18 N., R. 10 E., at bridge on State highway 84, 4 miles east of Kennett. Zero of gage is about 240 feet above mean sea level.

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

EXTREMES.—Maximum discharge during year, 1,970 second-feet Jan. 14 and 15 (gage height, 16.27 feet); no flow on many days.

1927–1930: Maximum discharge, 2,340 second-feet Apr. 25, 1927 (gage height, 17.62 feet); no flow on many days.

REMARKS.—Records good for discharges above 20 second-feet and poor for those below. See "Remarks" under Little River ditch 66.

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

Day	Dec.	Jan.	Feb.	Mar.	Day	Dec.	Jan.	Feb.	Mar.
1	0	0	19	21	16	0	1,890	36	0
2	0	0	21	5	17	0	1,760	21	0
3	0	30	34	0	18	0	1,550	9	0
4	0	212	115	0	19	110	1,160	6	0
5	0	98	908	0	20	170	674	0	0
6	0	19	1,370	0	21	47	326	0	0
7	0	24	1,240	0	22	0	184	0	0
8	0	462	980	0	23	0	106	0	0
9	0	1,420	586	20	24	0	64	0	0
10	0	1,810	274	9	25	0	36	0	0
11	0	1,890	115	0	26	0	21	0	20
12	0	1,810	67	0	27	0	18	21	15
13	0	1,860	56	0	28	0	36	41	0
14	0	1,970	60	0	29	0	78	-------	0
15	0	1,970	53	0	30	0	60	-------	0
					31	0	36	-------	0

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
December	170	0	10.5	March	21	0	2.90
January	1,970	0	696				
February	1,370	0	215	The year	1,970	0	76.8

NOTE.—No flow during months for which no discharge is shown.

LITTLE RIVER DITCH 251 NEAR KENNETT, MO.

LOCATION.—Chain gage in NW. ¼ sec. 3, T. 18 N., R. 10 E., at bridge on State highway 84, 4 miles east of Kennett. Zero of gage is about 240 feet above mean sea level.

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

EXTREMES.—Maximum discharge during year, 5,600 second-feet Jan. 14 and 15 (gage height, 16.41 feet); minimum, 52 second-feet Sept. 5–8 (gage height, 2.10 feet).

1926–1930: Maximum discharge, 6,510 second-feet Apr. 24, 25, 1927 (gage height, 17.67 feet); minimum, that of Sept. 5–8, 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	147	177	177	517	1,050	1,050	665	349	263	162	86	61
2	147	177	177	565	1,050	944	690	349	253	162	86	56
3	147	223	169	1,100	1,100	840	740	349	243	147	86	57
4	147	243	162	1,720	1,490	815	892	327	243	140	75	54
5	162	213	169	1,350	3,330	790	815	327	233	140	75	52
6	162	194	169	996	4,240	740	765	327	233	140	70	52
7	147	194	169	1,050	4,020	790	715	305	233	140	70	52
8	140	185	177	2,560	3,480	866	665	305	223	147	70	52
9	140	177	177	4,300	2,650	1,050	615	305	213	147	70	56
10	140	177	185	5,140	1,960	970	590	327	213	127	70	57
11	140	185	177	5,340	1,560	892	590	373	203	127	66	66
12	140	169	169	5,200	1,350	815	565	445	203	127	66	60
13	140	194	169	5,340	1,350	740	541	469	203	127	70	61
14	140	223	194	5,600	1,350	715	517	421	203	120	75	56
15	140	263	243	5,600	1,350	690	517	421	185	114	86	57
16	140	283	283	5,400	1,160	640	493	397	203	114	70	66
17	134	263	445	5,020	1,100	615	493	373	194	114	86	61
18	134	253	866	4,600	1,050	665	493	373	185	114	70	61
19	134	243	1,520	3,860	996	840	469	397	177	114	66	57
20	134	223	1,680	2,780	944	866	445	421	177	108	66	56
21	140	213	1,130	2,120	918	840	445	397	177	108	66	56
22	140	213	866	1,680	866	740	445	373	169	108	66	56
23	140	203	765	1,490	840	690	421	373	162	108	61	57
24	140	203	665	1,320	840	690	397	349	162	102	57	61
25	134	194	590	1,190	840	790	397	349	154	102	57	66
26	134	194	565	1,070	866	1,070	397	305	154	102	57	66
27	134	194	541	1,050	1,070	1,020	397	305	147	96	57	86
28	134	194	565	1,220	1,160	892	373	305	147	96	56	75
29	134	185	565	1,380	-------	815	373	283	140	91	57	70
30	134	185	565	1,250	-------	765	373	283	140	86	55	66
31	140	-------	541	1,130	-------	715	-------	263	-------	86	56	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	162	134	141	May	469	263	353
November	283	169	208	June	263	140	194
December	1,680	162	479	July	162	86	120
January	5,600	517	2,680	August	86	55	68.5
February	4,240	840	1,570	September	86	52	60.3
March	1,070	615	818				
April	892	373	543	The year	5,600	52	598

LITTLE RIVER DITCH 259 NEAR KENNETT, MO.

LOCATION.—Chain gage in NW. ¼ sec. 3, T. 18 N., R. 10 E., at bridge on State highway 84, 4 miles east of Kennett. Zero of gage is about 240 feet above mean sea level.

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

EXTREMES.—Maximum discharge during year, 1,820 second-feet Jan. 14 (gage height, 11.04 feet); minimum discharge, 0.3 second-foot Sept. 15, 19–23; minimum gage height, 1.33 feet Aug. 29, 30, Sept. 4–8, 19, 20, 22, 23.

1926–1930: Maximum discharge, 4,140 second-feet Apr. 29, 1927 (gage height, 15.57 feet); minimum discharge and gage height, those of 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	6	9	7	51	153	127	100	34	28	6	2.6	0.5
2	6	7	7	87	164	118	104	33	30	5	2.6	.5
3	6	7	6	164	164	104	175	33	27	5	2.6	.5
4	6	7	6	132	556	100	252	27	27	5	2.6	.4
5	6	6	7	113	1,040	95	187	26	22	4.6	2.6	.4
6	6	6	6	95	890	91	142	24	19	4.6	2.6	.4
7	6	6	5	225	602	127	132	24	18	4.6	2.0	.4
8	6	6	7	1,120	382	142	113	24	16	4.4	2.0	.4
9	5	6	7	1,590	280	122	100	20	12	4.8	2.0	.5
10	5	7	7	1,660	199	113	95	26	12	4.8	2.0	.6
11	5	6	7	1,630	175	104	87	54	11	4.8	2.0	.4
12	5	7	7	1,630	153	95	79	58	10	4.4	2.0	.4
13	6	8	6	1,790	199	87	76	51	10	4.4	1.6	.5
14	6	10	7	1,820	175	87	76	54	9	4.4	1.8	.4
15	6	10	9	1,720	175	79	76	54	8	4.0	2.2	.3
16	6	10	10	1,590	153	76	72	48	8	4.0	1.8	.4
17	6	10	13	1,330	118	76	68	44	8	4.0	3.8	.4
18	6	9	142	990	118	132	65	51	8	4.0	4.2	.4
19	6	8	225	556	113	366	62	108	7	4.0	1.7	.3
20	6	8	164	308	108	294	54	95	7	4.0	1.4	.3
21	6	7	104	252	100	199	54	76	7	4.0	1.4	.3
22	6	7	83	212	91	153	54	68	6	4.0	1.4	.3
23	4.8	7	72	175	91	127	51	62	6	4.0	1.4	.3
24	4.8	7	68	153	100	132	48	62	5	4.0	1.4	.4
25	4.4	7	62	132	91	175	44	58	5	4.0	1.0	.5
26	4.4	7	58	122	132	199	44	51	5	4.0	1.0	.5
27	4.4	7	58	132	153	164	44	44	5	3.6	1.0	.5
28	4.4	7	58	322	132	142	44	44	5	3.6	.6	.5
29	5	7	62	322	-------	122	38	37	4.8	3.2	.4	.5
30	5	6	58	225	-------	113	35	36	4.8	3.2	.4	.4
31	6	-------	54	175	-------	100	-------	34	-------	3.2	.5	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	6	4.4	5.52	May	108	20	47.1
November	10	6	7.40	June	30	4.8	11.7
December	225	5	44.9	July	6	3.2	4.25
January	1,820	51	672	August	4.2	.4	1.83
February	1,040	91	243	September	.6	.3	.42
March	366	76	134				
April	252	35	85.7	The year	1,820	.3	105

BIG LAKE OUTLET NEAR MANILA, ARK.

LOCATION.—Chain gage in SE. ¼ sec. 9, T. 14 N., R. 9 E., 3½ miles southeast of Manila.

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

EXTREMES.—Maximum discharge during year, 15,900 second-feet Jan. 16 (gage height, 19.85 feet); minimum, 195 second-feet Sept. 21–23 (gage height, 2.85 feet).

1927–1930: Maximum discharge, that of Jan. 16, 1930; minimum, that of Sept. 21–23, 1930.

REMARKS.—Records fair. Discharge interpolated Jan. 17, Aug. 24. Gage-height record furnished by Mississippi County Drainage District 17.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	510	540	610	2,150	8,030	4,580	3,000	1,400	1,250	575	330	242
2	510	610	610	2,150	7,750	4,510	2,950	1,350	1,200	610	330	230
3	510	685	610	2,150	7,490	4,440	2,950	1,350	1,150	685	330	230
4	510	685	610	2,150	7,490	4,370	2,900	1,350	1,100	610	330	230
5	540	685	610	2,400	7,490	4,180	2,850	1,300	1,050	610	330	230
6	540	685	645	2,650	7,490	4,060	2,850	1,250	1,000	610	330	218
7	540	645	685	2,950	7,890	4,060	2,850	1,250	1,000	540	305	205
8	510	610	685	3,280	8,450	3,940	2,800	1,200	955	540	305	195
9	480	610	685	4,000	8,310	3,880	2,750	1,250	910	540	305	205
10	480	610	685	5,390	8,310	3,820	2,750	1,300	865	510	292	205
11	455	610	685	7,230	8,170	3,820	2,600	1,350	865	480	292	218
12	455	610	685	9,480	8,030	3,760	2,450	1,400	865	480	280	230
13	455	685	730	11,800	7,890	3,640	2,150	1,550	865	480	255	242
14	455	775	775	13,600	7,750	3,460	2,050	1,650	865	455	255	230
15	455	820	775	15,000	7,490	3,340	1,950	1,700	865	455	280	218
16	455	865	820	15,900	7,360	3,220	1,950	1,700	865	430	305	218
17	455	865	865	14,400	6,980	3,100	1,950	1,700	865	430	330	230
18	455	865	1,200	12,900	6,740	3,000	1,900	1,850	775	430	405	230
19	455	865	1,600	12,000	6,500	2,950	1,850	1,850	775	430	380	218
20	455	865	1,850	11,500	6,390	3,050	1,850	1,950	775	430	610	205
21	455	820	2,050	11,300	6,280	3,050	1,800	2,050	730	405	305	195
22	455	775	2,100	10,900	6,060	3,100	1,750	2,050	730	405	280	195
23	455	775	2,200	10,600	5,760	3,160	1,700	2,050	685	405	268	195
24	480	730	2,250	10,300	5,390	3,160	1,650	2,050	645	380	260	218
25	455	685	2,350	9,940	4,970	3,160	1,550	1,950	610	380	255	230
26	480	645	2,450	9,630	4,890	3,050	1,500	1,800	610	380	255	230
27	480	610	2,500	9,480	4,810	3,050	1,500	1,650	610	380	230	230
28	480	610	2,450	9,180	4,650	3,050	1,500	1,600	575	380	218	230
29	480	610	2,350	8,450	-------	3,050	1,450	1,500	575	380	218	230
30	480	610	2,250	8,310	-------	3,050	1,450	1,450	540	355	218	230
31	480	-------	2,150	8,030	-------	3,050	-------	1,350	-------	355	218	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	540	455	479	29,500
November	865	540	702	41,800
December	2,500	610	1,340	82,400
January	15,900	2,150	8,360	514,000
February	8,450	4,650	6,960	387,000
March	4,580	2,950	3,520	216,000
April	3,000	1,450	2,170	129,000
May	2,050	1,200	1,590	97,800
June	1,250	540	839	49,900
July	685	355	469	28,800
August	610	218	300	18,400
September	242	195	220	13,100
The year	15,900	195	2,220	1,610,000

WHITE RIVER BASIN

WHITE RIVER AT BEAVER, ARK.

LOCATION.—Chain gage in sec. 20, T. 21 N., R. 26 W., at Missouri & North Arkansas Railroad bridge one-fourth mile east of depot at Beaver. Zero of gage is 885.55 feet above mean sea level.

DRAINAGE AREA.—1,270 square miles.

RECORDS AVAILABLE.—July, 1909, to December, 1910; May, 1923, to September, 1930.

EXTREMES.—Maximum discharge during year, 24,500 second-feet May 12 (gage height, 19.15 feet); minimum, 42 second-feet Aug. 11–16 (gage height, 2.30 feet).

1909–10, 1923–1930: Maximum discharge, 65,000 second-feet Apr. 16, 1927 (gage height, 37.0 feet); minimum discharge, 33 second-feet Sept. 10, 1925; minimum gage height, 1.55 feet Oct. 1–8, 1909.

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	91	1,080	170	448	1,210	2,690	502	480	570	168	50	50
2	87	842	158	475	1,210	2,160	502	435	525	156	48	48
3	85	595	150	475	1,300	1,860	480	412	480	144	45	48
4	85	448	145	1,040	1,860	1,480	1,480	595	435	144	48	45
5	103	370	140	960	5,900	1,300	1,120	1,960	412	139	52	43
6	101	324	140	880	7,140	1,160	842	2,260	412	134	60	48
7	114	324	145	805	4,400	1,040	680	2,060	390	125	58	45
8	101	302	145	960	3,050	960	595	3,700	370	120	52	52
9	99	281	145	3,560	2,470	880	570	3,300	350	131	48	98
10	107	281	145	5,600	1,960	805	525	4,400	350	128	48	106
11	184	281	145	3,980	1,660	740	480	14,400	412	123	43	134
12	475	281	150	4,700	1,480	650	435	23,000	480	120	42	260
13	302	269	156	8,580	1,300	620	412	7,620	480	128	42	278
14	242	250	181	15,100	1,120	570	805	4,700	502	120	42	260
15	202	242	370	8,900	1,000	548	570	3,430	458	110	42	502
16	187	242	1,480	5,600	880	525	620	2,580	412	101	43	2,930
17	161	265	4,260	3,700	805	502	650	2,360	390	92	67	2,160
18	158	273	2,260	2,690	710	620	570	2,160	370	87	87	1,210
19	135	277	2,810	2,160	650	1,390	502	2,160	332	83	125	680
20	135	273	2,580	1,860	620	1,760	525	1,860	296	78	171	502
21	125	269	1,860	1,570	570	1,390	620	1,660	278	74	147	390
22	116	265	1,390	1,390	570	1,040	595	1,390	260	74	118	314
23	112	250	1,120	1,040	595	920	960	1,210	243	72	96	260
24	107	242	920	1,000	570	805	1,480	1,120	296	72	85	226
25	103	235	805	1,040	3,050	772	1,080	1,760	243	67	74	209
26	101	228	730	920	9,240	740	960	1,390	226	63	67	177
27	103	211	660	880	6,980	740	805	1,080	209	60	60	165
28	135	208	595	842	3,700	680	680	960	206	56	60	153
29	208	190	535	1,080	-------	620	595	805	193	53	56	177
30	211	184	505	1,480	-------	570	525	710	177	49	56	171
31	565	-------	475	1,300	-------	525	-------	620	-------	50	53	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	565	85	163	0.128	0.15	10,000
November	1,080	184	326	.257	.29	19,400
December	4,260	140	822	.647	.75	50,500
January	15,100	448	2,740	2.16	2.49	168,000
February	9,240	570	2,360	1.86	1.94	131,000
March	2,690	502	1,000	.787	.91	61,500
April	1,480	412	706	.556	.62	42,000
May	23,000	412	3,120	2.46	2.84	192,000
June	570	177	359	.283	.32	21,400
July	168	49	101	.080	.09	6,210
August	171	42	67.3	.053	.06	4,140
September	2,930	43	391	.308	.34	23,300
The year	23,000	42	1,010	.795	10.80	729,000

WHITE RIVER AT FORSYTH, MO.

LOCATION.—Stevens water-stage recorder in SE. ¼ sec. 33, T. 24 N., R. 20 W., in Forsyth, one-fourth mile below Swan Creek. Zero of gage is 642.98 feet above mean sea level.

DRAINAGE AREA.—4,610 square miles.

RECORDS AVAILABLE.—January to September, 1926; February to September, 1930.

EXTREMES.—Maximum discharge during year, 31,100 second-feet May 12, 13 (gage height, 14.50 feet); minimum, 111 second-feet many times during summer (gage height, 1.40 feet).

1926, 1930: Maximum and minimum discharges, those of 1930.

Maximum stage known, 45.36 feet Apr. 15, 1927 (discharge, about 160,000 second-feet).

REMARKS.—Records good. Flow regulated by hydroelectric plant of Empire District Electric Co., 2 miles upstream.

Daily and monthly discharge, in second-feet, 1930

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	11,000	1,790	1,980	1,480	788	247	133
2	-------	8,520	2,340	1,880	1,660	750	296	406
3	-------	6,990	2,480	2,170	2,150	709	173	390
4	-------	6,030	1,860	1,320	1,560	203	227	323
5	-------	5,310	1,420	2,280	1,360	195	320	501
6	-------	4,630	2,570	2,800	1,520	213	308	308
7	-------	4,590	2,700	3,290	1,790	610	346	267
8	-------	4,140	2,370	3,230	1,220	621	283	1,770
9	-------	3,110	1,500	3,630	1,060	699	261	3,220
10	-------	3,920	1,630	6,980	1,300	601	287	9,730
11	-------	3,450	1,290	21,000	2,580	760	290	5,520
12	-------	3,110	1,620	29,200	4,410	693	272	4,130
13	5,870	2,310	1,910	28,500	3,580	663	244	4,080
14	5,390	2,090	2,180	15,000	2,970	650	316	3,480
15	4,680	2,600	1,870	9,850	2,000	827	386	7,740
16	4,370	2,640	1,760	7,430	3,470	733	289	12,700
17	3,940	2,000	1,760	9,490	1,740	378	148	9,390
18	3,760	2,240	1,990	15,600	1,800	379	222	7,010
19	3,490	2,660	1,860	12,500	1,500	436	505	4,680
20	2,600	3,730	779	8,580	1,040	123	491	3,690
21	2,800	4,260	1,720	6,540	1,040	487	296	3,530
22	2,900	3,960	1,550	5,140	656	695	402	2,420
23	3,380	3,710	1,860	5,000	1,230	664	403	1,690
24	2,530	3,710	2,700	4,400	1,290	576	204	1,330
25	7,630	3,380	3,210	4,090	680	425	298	1,230
26	15,300	1,880	3,370	3,800	1,410	419	378	991
27	19,700	2,060	3,630	3,720	1,570	286	413	1,010
28	15,400	2,790	3,230	3,230	1,380	246	346	410
29	-------	2,960	1,690	2,180	870	277	397	439
30	-------	1,500	2,160	1,370	804	255	302	323
31	-------	1,850	-------	1,530	-------	241	469	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
February 13-28	19,700	2,530	6,480	1.41	0.84	206,000
March	11,000	1,500	3,780	.820	.95	232,000
April	3,630	779	2,090	.453	.51	124,000
May	29,200	1,320	7,350	1.59	1.83	452,000
June	4,410	656	1,700	.369	.41	101,000
July	827	123	503	.109	.13	30,900
August	505	148	317	.069	.08	19,500
September	12,700	133	3,090	.670	.74	184,000
The period						1,350,000

WHITE RIVER NEAR FLIPPIN, ARK.

LOCATION.—Staff gage in NW. ¼ sec. 9, T. 19 N., R. 15 W., 2½ miles north of Flippin. Zero of gage is 420.92 feet above mean sea level.
DRAINAGE AREA.—6,170 square miles.
RECORDS AVAILABLE.—October, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 50,100 second-feet Jan. 15 (gage height, 19.69 feet); minimum, 204 second-feet Aug. 7 (gage height, 4.32 feet).
1928–1930: Maximum discharge, 70,400 second-feet May 9, 1929 (gage height, 23.80 feet); minimum, that of Aug. 7, 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	388	30,000	1,540	2,360	5,050	16,500	2,510	1,930	1,800	970	324	476
2	316	12,400	1,930	2,070	5,480	15,100	2,360	2,830	1,930	970	300	380
3	452	8,350	1,360	2,990	5,480	10,000	2,830	2,360	2,070	970	253	253
4	518	6,850	1,540	3,160	9,450	8,350	3,330	2,670	2,210	1,020	246	372
5	725	5,480	1,540	3,330	14,400	7,330	2,830	2,360	2,670	820	340	388
6	770	4,440	1,540	3,160	22,800	6,610	2,210	1,930	1,930	554	268	412
7	680	3,330	1,420	2,830	25,500	6,150	2,510	3,500	2,210	420	218	452
8	590	4,240	1,190	4,840	19,400	5,700	3,500	4,440	1,930	388	253	635
9	870	3,160	1,140	4,240	15,100	5,480	3,160	3,860	1,670	468	300	725
10	680	2,830	1,800	6,380	13,800	4,440	2,510	6,380	1,670	590	332	7,330
11	870	3,500	1,020	10,600	9,730	5,050	2,070	30,400	1,540	1,300	356	9,730
12	970	2,990	1,420	12,400	8,620	4,640	2,210	29,500	1,930	1,800	372	6,380
13	3,330	2,830	1,670	36,000	7,830	4,050	1,930	35,500	5,480	1,670	316	4,440
14	4,640	4,050	1,540	49,600	7,090	3,500	2,360	32,100	5,700	770	268	4,240
15	4,440	3,680	4,640	49,600	6,380	2,670	2,360	16,500	4,240	820	246	5,700
16	3,330	4,240	5,260	42,900	5,920	3,330	2,670	11,500	2,670	680	239	8,350
17	2,210	3,330	4,440	33,300	6,850	3,500	2,070	9,170	3,500	870	348	12,400
18	1,800	3,160	5,700	17,600	4,840	4,640	2,670	14,500	2,510	770	563	9,450
19	1,360	3,160	8,620	13,400	4,640	3,860	2,070	19,400	1,800	572	518	7,330
20	725	2,990	8,620	11,200	4,440	4,240	2,210	14,400	1,930	460	436	5,260
21	1,300	2,360	7,830	7,330	2,830	4,840	2,210	10,000	1,670	492	428	4,640
22	920	2,210	7,090	8,620	3,330	5,480	1,360	8,350	1,420	484	545	4,050
23	820	2,210	5,920	7,830	3,330	5,260	2,210	6,850	1,420	324	635	3,330
24	920	2,070	4,640	7,830	3,330	5,050	2,360	6,850	1,020	635	404	2,210
25	920	1,800	4,640	5,920	3,330	4,640	2,830	6,850	1,540	1,020	404	1,930
26	870	2,210	3,500	5,480	17,600	4,640	3,860	5,920	1,670	725	404	1,800
27	820	2,210	3,500	5,050	20,500	3,500	3,860	5,260	1,020	545	300	1,800
28	770	1,670	3,860	5,480	24,300	2,510	4,240	4,840	1,930	509	308	1,480
29	680	1,240	3,500	7,090	-------	3,160	4,240	4,240	1,670	460	436	1,080
30	4,440	1,480	2,360	5,050	-------	3,500	2,670	3,500	1,540	292	460	770
31	18,700	-------	2,210	5,260	-------	2,670	-------	2,670	-------	253	436	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	18,700	316	1,960	0.318	0.37	121,000
November	30,000	1,240	4,480	.726	.81	267,000
December	8,620	1,020	3,450	.559	.64	212,000
January	49,600	2,070	12,400	2.01	2.32	762,000
February	25,500	2,830	10,000	1.62	1.69	555,000
March	16,500	2,510	5,500	.891	1.03	338,000
April	4,240	1,360	2,670	.433	.48	159,000
May	35,500	1,930	10,000	1.62	1.87	615,000
June	5,700	1,020	2,210	.358	.40	132,000
July	1,800	253	730	.118	.14	44,900
August	635	218	363	.059	.07	22,300
September	12,400	253	3,590	.582	.65	214,000
The year	49,600	218	4,760	.771	10.47	3,440,000

WHITE RIVER NEAR NEWPORT, ARK.

LOCATION.—Chain gage on line between secs. 16 and 17, T. 11 N., R. 3 W., on Missouri Pacific Railroad bridge 2½ miles southwest of Newport.

DRAINAGE AREA.—19,800 square miles.

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

EXTREMES.—Maximum discharge during year, 112,000 second-feet Jan. 17 (gage height, 30.3 feet); minimum, 4,110 second-feet Sept. 6–9 (gage height, 2.6 feet).

1927–1930: Maximum discharge, 163,000 second-feet June 25, 1928 (gage height, 32.8 feet); minimum, that of Sept. 6–9, 1930.

Maximum stage known, 36.1 feet in April, 1927.

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	5,860	11,400	7,200	13,500	45,100	43,100	14,700	10,500	12,600	6,260	4,710	4,260
2	5,720	36,300	7,200	12,900	42,700	46,700	13,900	10,200	11,700	6,740	4,560	4,410
3	5,720	41,100	6,750	12,900	40,700	44,700	13,500	9,600	10,800	6,580	4,560	4,410
4	5,720	30,200	6,600	13,300	41,100	41,100	13,500	9,600	10,200	6,580	4,410	4,260
5	5,720	22,800	6,600	14,300	56,000	37,100	13,900	9,600	10,000	6,260	4,410	4,260
6	6,000	18,200	6,600	14,100	65,200	33,400	14,300	9,600	9,800	6,100	4,410	4,110
7	6,000	15,300	6,450	14,500	68,700	30,600	13,900	10,200	9,990	6,100	4,410	4,110
8	6,000	13,100	6,600	29,200	70,700	29,600	13,100	10,200	9,610	5,940	4,410	4,110
9	5,720	11,700	6,600	41,500	71,800	28,200	12,000	12,400	9,040	5,940	4,410	4,110
10	5,720	10,600	6,600	54,700	68,700	26,700	12,400	18,600	8,860	5,620	4,260	5,010
11	5,720	10,400	6,600	56,500	64,200	25,500	12,400	37,100	9,040	5,620	4,410	9,610
12	5,720	9,900	6,900	57,800	60,700	24,200	12,000	63,200	8,680	5,620	4,260	9,990
13	5,720	9,750	6,900	67,700	55,200	21,000	11,700	77,800	8,320	5,620	4,410	12,000
14	6,000	9,450	6,750	83,000	51,100	22,800	10,800	80,000	8,320	5,620	4,560	12,000
15	6,300	9,300	7,950	97,000	47,100	21,500	10,500	78,900	9,800	5,310	4,860	10,600
16	8,400	9,450	9,000	108,000	43,500	20,100	10,400	74,500	10,600	5,310	4,560	9,420
17	8,700	9,750	13,100	111,000	39,900	18,400	10,500	65,200	9,990	5,310	5,010	10,600
18	8,400	9,900	16,900	105,000	36,700	18,200	10,500	55,600	9,800	5,310	5,310	13,600
19	7,800	9,600	31,600	96,100	33,000	18,200	10,200	49,300	8,860	5,310	5,310	16,500
20	7,200	9,150	35,200	86,800	29,600	21,300	9,900	48,400	9,040	5,160	5,310	15,100
21	6,900	9,000	35,900	80,600	26,700	22,200	9,900	46,700	8,320	5,010	5,620	13,200
22	6,600	8,850	33,800	74,500	24,200	22,200	9,900	41,900	7,960	5,010	5,310	11,000
23	6,300	8,400	30,200	69,200	22,800	22,000	9,900	34,800	7,600	5,010	5,010	9,420
24	6,300	8,100	27,000	65,200	21,800	21,800	9,600	29,900	7,420	5,010	4,710	8,680
25	6,000	7,800	23,800	60,700	21,300	21,500	9,600	25,500	7,240	5,010	4,710	8,320
26	6,000	7,650	21,300	57,800	20,800	20,500	9,600	23,000	6,900	5,010	4,710	7,780
27	5,860	7,500	18,900	55,200	22,800	19,600	9,900	20,800	6,580	5,160	4,560	7,240
28	5,720	7,200	17,100	53,400	37,500	18,600	10,400	18,600	6,580	5,160	4,410	6,580
29	5,720	7,050	15,800	51,100	-------	17,500	10,500	16,700	6,580	5,010	4,410	6,260
30	6,000	7,200	15,100	49,300	-------	16,000	10,500	15,100	6,420	4,860	4,410	5,940
31	6,000	-------	14,300	47,100	-------	14,900	-------	13,900	-------	4,860	4,260	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	8,700	5,720	6,310	0.318	0.37	388,000
November	41,100	7,050	12,900	.652	.73	768,000
December	35,900	6,450	14,900	.753	.87	916,000
January	111,000	12,900	56,600	2.86	3.30	3,480,000
February	71,800	20,800	43,900	2.22	2.31	2,440,000
March	46,700	14,900	25,500	1.29	1.49	1,570,000
April	14,700	9,600	11,500	.581	.65	684,000
May	80,000	9,600	33,100	1.67	1.92	2,040,000
June	12,600	6,420	8,890	.449	.50	529,000
July	6,740	4,860	5,530	.279	.32	340,000
August	5,620	4,260	4,670	.236	.27	287,000
September	16,500	4,110	8,230	.416	.46	490,000
The year	111,000	4,110	19,200	.970	13.19	13,900,000

WHITE RIVER AT DE VALLS BLUFF, ARK.

LOCATION.—Staff gage in sec. 16, T. 2 N., R. 4 W., 1 mile northeast of De Valls Bluff and 27 miles above mouth of Cache River. Zero of gage is 152.67 feet above mean sea level.

DRAINAGE AREA.—23,500 square miles.

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

EXTREMES.—Maximum discharge during year, 113,000 second-feet Jan. 22, 23 (gage height, 26.8 feet); minimum, 4,900 second-feet Sept. 3–5 (gage height, 4.0 feet).

1927–1930: Maximum discharge, 140,000 second-feet June 28, 29, 1928 (gage height, 28.5 feet); minimum, that of Sept. 3–5, 1930.

Maximum stage known, 33.8 feet Apr. 24, 1927.

REMARKS.—Records good. 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	6,480	6,300	8,430	21,200	69,400	36,600	22,000	12,300	33,900	7,310	5,530	5,040
2	6,390	6,390	8,300	20,300	66,700	37,300	21,000	12,600	29,600	7,110	5,460	4,970
3	6,300	9,860	8,080	19,600	61,400	37,300	20,100	12,900	25,400	7,020	5,390	4,900
4	6,300	17,700	7,750	18,800	64,100	38,000	19,400	12,700	22,700	7,020	5,320	4,900
5	6,300	21,200	7,640	18,300	64,100	38,000	19,100	12,400	20,300	7,020	5,250	4,900
6	6,300	22,200	7,530	18,300	62,800	38,600	18,900	12,200	18,300	6,930	5,180	5,040
7	6,230	22,500	7,530	18,300	65,400	39,300	18,800	12,000	16,600	6,930	5,110	5,040
8	6,230	21,400	7,530	24,700	68,000	39,300	18,600	12,000	15,000	6,840	5,110	5,040
9	6,300	19,900	7,530	38,000	70,700	38,600	18,300	12,300	14,000	6,660	5,040	4,970
10	6,300	18,300	7,420	47,000	70,700	38,000	17,800	13,400	13,100	6,570	5,040	5,040
11	6,300	16,400	7,310	50,000	70,700	38,000	17,200	19,900	12,400	6,390	5,040	4,970
12	6,230	14,900	7,420	55,500	70,700	37,300	16,600	26,900	11,600	6,300	4,970	5,040
13	6,230	13,700	7,530	64,100	72,000	36,600	16,200	33,300	11,000	6,230	4,970	6,020
14	6,160	12,700	7,640	72,000	70,700	35,300	15,600	38,000	10,600	6,160	4,970	7,530
15	6,160	12,200	7,750	79,200	68,000	33,300	15,200	43,600	10,200	5,950	4,970	9,080
16	6,160	11,700	7,860	86,500	64,100	31,600	14,600	47,800	9,990	6,020	4,970	10,200
17	6,300	11,300	7,970	93,800	61,400	30,600	14,200	54,400	10,200	5,950	5,110	10,400
18	6,840	11,200	9,990	99,600	57,700	28,600	13,700	66,700	10,800	5,880	5,530	10,100
19	7,310	11,300	13,800	104,000	54,400	27,200	13,400	76,400	11,000	5,880	5,810	10,200
20	8,300	11,300	19,400	108,000	51,100	25,800	13,300	77,800	10,800	5,810	5,810	11,500
21	8,300	11,200	23,600	112,000	48,900	25,800	13,000	76,400	10,400	5,740	5,810	12,900
22	8,080	11,000	26,900	113,000	46,100	26,200	12,700	74,900	10,100	5,670	5,880	13,400
23	7,640	10,600	28,600	113,000	45,200	26,200	12,600	72,000	9,730	5,670	5,950	13,300
24	7,200	10,400	30,100	108,000	42,700	26,500	12,300	66,700	9,340	5,740	5,880	12,600
25	7,020	10,100	30,100	104,000	41,000	25,800	12,300	61,400	8,950	5,670	5,810	11,600
26	6,750	9,730	29,600	99,600	39,200	25,400	12,000	56,600	8,560	5,600	5,600	10,800
27	6,660	9,340	29,100	95,200	38,000	25,100	11,900	52,200	8,190	5,530	5,460	10,100
28	6,480	9,080	28,100	90,800	37,300	25,400	11,700	47,800	7,970	5,530	5,320	9,470
29	6,390	8,690	26,200	85,000	-------	25,100	11,700	44,400	7,640	5,530	5,250	8,820
30	6,300	8,430	24,000	79,200	-------	24,000	12,000	41,000	7,420	5,530	5,180	8,300
31	6,300	-------	22,500	73,400	-------	23,300	-------	37,300	-------	5,530	5,040	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	8,300	6,160	6,650	0.283	0.33	409,000
November	22,500	6,300	13,000	.553	.62	774,000
December	30,100	7,310	15,300	.651	.75	941,000
January	113,000	18,300	68,700	2.92	3.37	4,220,000
February	72,000	37,300	58,700	2.50	2.60	3,260,000
March	39,300	23,300	31,700	1.35	1.56	1,950,000
April	22,000	11,700	15,500	.660	.74	922,000
May	77,800	12,000	40,000	1.70	1.96	2,460,000
June	33,900	7,420	13,500	.574	.64	803,000
July	7,310	5,530	6,180	.263	.30	380,000
August	5,950	4,970	5,350	.228	.26	329,000
September	13,400	4,900	8,210	.349	.39	489,000
The year	113,000	4,900	23,400	.996	13.52	16,900,000

JAMES RIVER AT GALENA, MO.

LOCATION.—Chain gage in NW. ¼ sec. 7, T. 24 N., R. 23 W., at bridge on State highway 44 at Galena, half a mile above Railey Creek. Zero of gage is 924.94 feet above mean sea level.
DRAINAGE AREA.—1,000 square miles.
RECORDS AVAILABLE.—October, 1921, to September, 1930.
EXTREMES.—Maximum discharge during year, 9,760 second-feet Jan. 14 (gage height, 10.68 feet); minimum, 68 second-feet Sept. 5 (gage height, 1.20 feet).
1921–1930: Maximum discharge, 41,900 second-feet Apr. 15, 1927 (gage height, 25.15 feet); minimum, 52 second-feet Sept. 6, 7, 9, 10, 1925 (gage height, 0.56 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	156	2,040	216	272	625	2,040	340	215	285	204	92	80
2	153	1,330	209	310	680	1,480	340	215	268	204	87	78
3	148	900	202	394	1,050	1,330	340	215	268	194	85	75
4	137	708	202	565	4,250	1,190	340	212	250	190	87	73
5	148	565	196	592	7,320	1,050	320	215	250	184	95	68
6	170	486	186	565	3,920	915	320	215	268	174	87	73
7	159	462	189	592	3,110	855	302	250	268	171	82	75
8	145	438	196	648	2,570	795	302	250	250	174	80	508
9	148	416	186	1,180	2,220	735	285	232	232	232	80	680
10	153	394	176	970	1,960	680	285	400	232	208	78	462
11	156	394	170	970	1,800	652	285	1,330	268	187	73	420
12	372	394	167	1,400	1,480	625	268	680	285	165	70	340
13	416	416	170	6,060	1,330	575	268	652	302	159	73	285
14	394	416	176	9,400	1,190	552	268	625	285	147	82	232
15	350	416	189	7,640	1,120	508	268	552	302	141	92	915
16	291	462	291	4,370	1,050	485	285	485	575	144	100	600
17	272	438	394	3,700	980	462	268	680	625	138	114	462
18	236	438	648	2,300	855	485	268	1,330	508	132	144	380
19	216	416	620	1,960	795	485	250	855	440	126	171	320
20	196	416	592	1,720	765	462	250	708	420	120	201	302
21	196	372	538	1,640	735	440	250	625	400	114	162	232
22	180	350	486	1,480	680	420	250	575	380	114	144	132
23	176	350	438	1,190	680	400	250	575	340	177	135	120
24	170	310	394	1,050	652	400	250	552	302	168	126	171
25	167	291	372	915	735	420	232	508	268	132	117	168
26	162	272	350	795	3,920	400	232	462	250	120	103	162
27	159	254	350	795	2,840	400	232	440	232	120	98	153
28	196	254	330	735	2,300	380	232	420	215	114	92	141
29	310	236	310	680	-------	360	215	380	212	109	95	132
30	372	226	291	652	-------	360	215	340	208	103	92	126
31	835	-------	272	625	-------	340	-------	320	-------	98	85	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	835	137	237	0.237	0.27
November	2,040	226	495	.495	.55
December	648	167	307	.307	.35
January	9,400	272	1,810	1.81	2.09
February	7,320	625	1,840	1.84	1.92
March	2,040	340	667	.667	.77
April	340	215	274	.274	.31
May	1,330	212	500	.500	.58
June	625	208	313	.313	.35
July	232	98	154	.154	.18
August	201	70	104	.104	.12
September	915	68	266	.266	.30
The year	9,400	68	573	.573	7.79

BUFFALO RIVER NEAR RUSH, ARK.

LOCATION.—Staff gage in SE. ¼ sec. 10, T. 17 N., R. 15 W., immediately above Rush Creek, 24 miles above mouth, and 1½ miles southeast of Rush. Zero of gage is 458.70 feet above mean sea level.

DRAINAGE AREA.—1,110 square miles.

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

EXTREMES.—Maximum discharge during year, 57,000 second-feet May 11 (gage height, 21.8 feet); minimum discharge, 60 second-feet Aug. 3, 8, 9, 11; minimum gage height, 0.6 foot Oct. 1–3 and 7–9.

1928–1930: Maximum discharge, that of May 11, 1930; minimum discharge, that of Aug. 3, 8, 9, 11, 1930; minimum gage height, 0.6 foot Sept. 25 to Oct. 3, Oct. 7–9, 1929.

Maximum stage known, 49.5 feet in April, 1927.

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	65	3,620	201	438	545	980	582	545	545	380	65	90
2	65	1,340	201	460	582	900	620	508	470	225	65	85
3	65	830	201	830	780	820	860	508	455	145	60	82
4	71	555	189	1,030	9,360	660	1,390	660	403	145	62	75
5	80	438	181	890	10,400	582	1,110	2,620	380	135	80	70
6	71	370	165	830	5,320	620	980	1,490	365	120	68	75
7	65	348	213	890	4,090	700	860	5,020	328	114	62	82
8	65	305	245	3,480	3,260	742	780	5,000	320	110	60	85
9	65	285	438	4,070	2,740	700	742	3,810	307	110	60	335
10	95	265	460	3,480	2,260	620	660	26,400	281	110	62	320
11	112	245	392	3,480	1,810	582	620	47,400	294	110	60	314
12	95	225	370	5,370	1,590	545	582	12,300	314	110	78	255
13	80	265	348	24,500	1,390	508	545	6,150	301	110	65	1,020
14	130	555	438	12,900	1,200	470	545	4,090	275	110	65	582
15	130	655	960	7,800	980	440	508	3,000	262	105	65	388
16	112	580	1,700	4,240	940	425	508	2,380	249	105	65	350
17	112	505	2,330	2,740	860	440	508	2,140	237	100	68	1,020
18	95	482	4,380	1,920	780	508	462	2,870	207	95	80	700
19	95	460	3,920	1,490	742	700	432	2,260	195	95	108	455
20	95	415	2,940	1,290	700	820	432	2,140	195	90	142	335
21	95	415	1,700	1,110	660	780	418	1,590	185	90	105	268
22	95	348	1,520	860	582	700	418	1,290	175	90	105	195
23	80	325	1,430	660	545	700	508	1,200	160	85	105	195
24	80	305	1,260	582	700	660	780	2,030	150	85	105	175
25	80	285	1,100	432	780	700	1,060	1,810	145	85	98	180
26	80	265	960	358	780	780	900	1,290	145	85	95	180
27	80	245	770	314	1,290	780	780	1,060	138	85	90	170
28	95	245	605	314	1,110	742	700	900	128	80	90	165
29	95	229	580	620	-------	660	620	780	117	80	85	180
30	95	209	505	700	-------	660	582	700	117	75	85	185
31	4,720	-------	460	660	-------	620	-------	620	-------	70	85	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	4,720	65	237	0.214	0.25	14,600
November	3,620	209	520	.468	.52	30,900
December	4,380	165	1,010	.910	1.05	62,100
January	24,500	314	2,860	2.58	2.97	176,000
February	10,400	545	2,030	1.83	1.91	113,000
March	980	425	663	.597	.69	40,800
April	1,390	418	683	.615	.69	40,600
May	47,400	508	4,660	4.20	4.84	287,000
June	545	117	261	.235	.26	15,500
July	380	70	114	.103	.12	7,010
August	142	60	80.3	.072	.08	4,940
September	1,020	70	287	.259	.29	17,100
The year	47,400	60	1,120	1.01	13.67	810,000

NORTH FORK OF WHITE RIVER AT TECUMSEH, MO.

LOCATION.—Chain gage in sec. 16, T. 22 N., R. 12 W., at bridge on State highway 80 at Tecumseh, half a mile below Bryant Creek.

DRAINAGE AREA.—1,180 square miles.

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

EXTREMES.—Maximum discharge during year, 11,200 second-feet Jan. 14 (gage height, 8.50 feet); minimum, 473 second-feet Aug. 29, 30, Sept. 3–5 (gage height, 1.04 feet).

1921–1930: Maximum discharge, 53,000 second-feet June 13, 1928 (gage height, 24.00 feet); minimum, 363 second-feet Sept. 5, 1925.

Maximum stage known, 31.6 feet in July, 1905.

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	570	5,000	650	785	1,120	2,380	1,020	780	970	648	522	506
2	570	2,240	610	880	1,120	1,990	1,020	735	970	648	522	498
3	570	1,660	610	880	1,170	1,750	1,020	825	920	648	522	482
4	610	1,360	610	830	2,650	1,630	970	825	920	648	522	473
5	650	1,200	610	880	3,800	1,630	970	825	870	605	522	473
6	610	1,080	610	830	2,930	1,630	920	780	870	605	522	506
7	610	1,030	650	880	2,380	1,990	920	1,020	870	605	522	514
8	570	980	650	1,030	2,120	1,870	920	1,020	825	690	522	605
9	570	930	650	1,200	1,870	1,630	870	920	825	648	506	605
10	570	930	610	1,250	1,750	1,630	870	2,380	825	605	506	564
11	650	880	610	1,250	1,630	1,450	870	5,150	870	605	498	564
12	1,030	880	610	1,530	1,630	1,390	870	2,650	970	605	490	564
13	1,080	830	650	8,000	1,510	1,340	870	2,120	920	605	506	564
14	880	830	740	9,920	1,450	1,280	870	1,990	870	605	514	564
15	785	830	1,360	5,450	1,340	1,220	870	1,750	825	605	522	825
16	740	785	1,470	3,500	1,280	1,220	870	1,510	825	564	522	825
17	695	785	1,420	2,790	1,220	1,170	870	1,750	780	564	522	690
18	650	785	1,470	2,250	1,220	1,280	870	4,400	780	564	564	605
19	650	740	1,420	1,990	1,170	1,280	825	2,650	780	564	605	564
20	650	740	1,300	1,870	1,170	1,220	825	2,120	735	564	564	522
21	650	695	1,140	1,750	1,120	1,220	825	1,870	735	564	522	522
22	650	695	1,080	1,510	1,170	1,170	825	1,630	735	564	498	522
23	610	695	980	1,390	1,220	1,170	780	1,510	735	564	498	522
24	610	695	980	1,390	1,450	1,170	825	1,450	690	605	490	564
25	610	695	930	1,280	1,990	1,170	780	1,340	690	605	490	522
26	610	695	880	1,280	6,240	1,120	780	1,280	690	605	490	522
27	610	650	880	1,280	3,500	1,070	780	1,170	648	564	490	506
28	610	650	830	1,220	2,650	1,070	780	1,120	648	564	490	506
29	650	650	830	1,170	-------	1,020	780	1,120	648	564	473	490
30	610	650	785	1,170	-------	1,020	780	1,070	648	522	473	490
31	5,920	-------	785	1,120	-------	1,020	-------	1,020	-------	522	498	----

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,920	570	834	0.707	0.82
November	5,000	650	1,040	.881	.98
December	1,470	610	884	.749	.86
January	9,920	785	2,020	1.71	1.97
February	6,240	1,120	1,920	1.63	1.70
March	2,380	1,020	1,390	1.18	1.36
April	1,020	780	868	.736	.82
May	5,150	735	1,640	1.39	1.60
June	970	648	803	.681	.76
July	690	522	595	.504	.58
August	605	473	513	.435	.50
September	825	473	556	.471	.53
The year	9,920	473	1,090	.924	12.48

NORTH FORK OF WHITE RIVER NEAR HENDERSON, ARK.

LOCATION.—Staff gage in NE. ¼ SW. ¼ sec. 26, T. 20 N., R. 12 W., 1 mile southeast of Henderson, 1 mile below Bennetts Bayou, and 19 miles above mouth.
DRAINAGE AREA.—1,640 square miles.
RECORDS AVAILABLE.—July, 1909, to December, 1910; October, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 23,400 second-feet Jan. 13 (gage height, 12.2 feet); minimum, 410 second-feet Sept. 8 (gage height, 1.42 feet).
1928–1930: Maximum discharge, 39,800 second-feet Jan. 24, 1929 (gage height, 17.0 feet); minimum, that of Sept. 8, 1930.
Maximum stage known, 29.5 feet in August, 1915.
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	670	10,800	750	1,020	1,600	3,090	1,270	880	1,220	670	515	515
2	630	6,620	750	1,270	1,600	2,690	1,270	880	1,170	670	515	515
3	630	2,950	750	1,270	1,600	2,430	1,270	835	1,120	670	480	480
4	710	1,950	710	1,220	7,260	2,190	1,270	970	1,070	630	480	480
5	710	1,710	710	1,170	6,220	2,070	1,220	925	1,020	630	515	480
6	710	1,490	710	1,120	4,440	1,950	1,220	925	970	630	515	515
7	710	1,380	790	1,270	3,660	2,310	1,170	1,170	970	630	515	790
8	670	1,270	790	1,830	3,230	2,310	1,120	1,270	925	630	515	515
9	670	1,170	750	2,070	2,820	2,190	1,120	1,170	925	790	515	970
10	710	1,120	750	2,190	2,560	1,950	1,070	6,220	925	710	480	750
11	835	1,070	750	2,070	2,310	1,830	1,070	8,160	925	670	515	670
12	1,120	1,070	710	3,960	2,190	1,710	1,070	4,440	1,070	630	515	630
13	1,170	1,020	1,070	14,500	2,070	1,600	1,070	3,230	1,120	630	480	630
14	1,070	1,020	1,710	15,000	1,950	1,600	1,070	2,950	1,020	590	480	630
15	970	970	5,110	11,800	1,830	1,490	1,070	2,690	925	590	515	1,380
16	925	970	3,810	5,650	1,710	1,490	1,070	2,430	925	590	515	1,220
17	835	970	3,960	4,280	1,600	1,490	1,020	2,310	925	550	515	970
18	790	925	4,120	3,510	1,600	3,370	1,020	4,600	880	550	550	790
19	750	925	2,950	3,230	1,600	2,690	1,020	4,120	880	550	590	670
20	750	880	2,310	2,820	1,490	2,070	1,070	3,230	835	550	590	630
21	710	880	2,070	2,430	1,490	1,950	1,070	2,430	790	550	550	550
22	710	835	1,950	2,190	1,490	1,830	1,020	2,070	790	550	515	515
23	710	790	1,710	2,070	1,710	1,710	1,020	2,190	790	515	515	550
24	710	790	1,490	1,950	1,710	1,710	970	1,950	750	550	515	590
25	710	790	1,380	1,830	1,830	1,600	970	1,710	750	630	480	515
26	710	790	1,270	1,710	8,390	1,490	925	1,490	750	590	480	480
27	670	790	1,270	1,710	5,110	1,490	925	1,490	710	590	480	480
28	670	750	1,220	1,710	3,660	1,380	925	1,380	710	550	480	480
29	790	750	1,170	1,710	-------	1,380	880	1,380	670	550	480	480
30	750	750	1,120	1,710	-------	1,380	880	1,270	670	515	480	445
31	14,700	-------	1,070	1,600	-------	1,270	-------	1,270	-------	515	480	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	14,700	630	1,220	0.744	0.86	75,000
November	10,800	750	1,610	.982	1.10	95,800
December	5,110	710	1,600	.976	1.13	98,400
January	15,000	1,020	3,290	2.01	2.32	202,000
February	8,390	1,490	2,810	1.71	1.78	156,000
March	3,370	1,270	1,930	1.18	1.36	119,000
April	1,270	880	1,070	.652	.73	63,700
May	8,160	835	2,320	1.41	1.63	143,000
June	1,220	670	907	.553	.62	54,000
July	790	515	602	.367	.42	37,000
August	590	480	509	.310	.36	31,300
September	1,380	445	644	.393	.44	38,300
The year	15,000	445	1,540	.939	12.75	1,110,000

BLACK RIVER AT LEEPER, MO.

LOCATION.—Chain gage in SW. ¼ NE. ¼ sec. 27, T. 28 N., R. 3 E., at Missouri Southern Railway bridge at Leeper. Zero of gage is 423.97 feet above mean sea level.

DRAINAGE AREA.—957 square miles.

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

EXTREMES.—Maximum discharge during year, 18,500 second-feet Jan. 14 (gage height, 11.26 feet); minimum, 215 second-feet Aug. 26 (gage height, 1.73 feet).

1921–1930: Maximum discharge, 37,000 second-feet Apr. 15, 1927 (gage height, 16.35 feet); minimum, 194 second-feet Sept. 9–11, 1925.

Maximum stage known, 21.3 feet in August, 1915.

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	348	568	325	568	965	5,400	600	420	348	325	240	240
2	325	600	325	568	925	5,000	700	420	348	325	240	244
3	348	1,130	325	600	885	4,820	772	420	348	325	240	236
4	348	885	302	535	1,500	3,740	700	535	348	302	240	236
5	370	735	302	535	1,880	3,260	665	600	325	302	240	233
6	370	700	325	535	1,880	2,980	665	568	325	302	240	240
7	370	600	302	1,880	2,090	2,980	632	535	325	302	240	248
8	348	568	348	1,880	2,090	3,740	600	448	325	348	236	260
9	348	535	348	2,400	1,980	2,980	600	420	325	348	236	256
10	348	505	370	2,400	1,980	3,260	568	505	325	348	236	260
11	348	505	370	2,400	1,780	2,750	568	505	325	325	236	272
12	370	535	370	1,310	1,880	2,300	568	535	348	264	230	264
13	420	568	370	11,800	1,980	1,880	535	475	325	248	240	280
14	475	475	370	17,500	1,980	1,400	568	448	325	240	280	268
15	448	448	505	13,000	1,980	965	568	370	325	236	302	325
16	420	448	1,010	5,200	1,880	925	848	420	348	240	302	370
17	395	448	848	4,460	1,690	885	925	475	325	233	325	420
18	395	420	2,630	2,520	1,500	1,310	885	535	325	233	302	420
19	370	420	2,750	2,300	1,400	1,130	600	505	325	233	302	420
20	370	395	1,980	1,880	1,310	925	535	475	325	233	302	420
21	395	395	1,880	1,780	1,220	848	505	448	325	233	302	395
22	370	370	1,130	1,590	1,220	848	505	420	280	233	280	395
23	370	370	1,090	1,500	1,050	810	535	475	280	233	264	348
24	370	370	1,010	1,310	1,090	925	568	448	280	233	256	325
25	370	348	965	1,220	1,220	885	505	420	280	256	252	325
26	370	348	810	1,220	5,600	925	475	420	280	248	226	325
27	348	348	632	1,130	5,600	735	535	370	276	272	240	302
28	370	370	600	1,130	5,600	700	505	370	276	272	233	302
29	370	348	568	1,090	-------	665	475	348	276	264	233	280
30	370	348	535	1,050	-------	632	370	348	325	256	230	276
31	420	-------	535	1,010	-------	632	-------	348	-------	248	230	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	475	325	376	0.393	0.45
November	1,130	348	503	.526	.59
December	2,750	302	782	.817	.94
January	17,500	535	2,850	2.98	3.44
February	5,600	885	2,010	2.10	2.19
March	5,400	632	1,980	2.07	2.39
April	925	370	603	.630	.70
May	600	348	453	.473	.55
June	348	276	317	.331	.37
July	348	233	273	.285	.33
August	325	226	257	.269	.31
September	420	233	306	.320	.36
The year	17,500	226	887	.927	12.62

BLACK RIVER AT BLACK ROCK, ARK.

LOCATION.—Staff gage in sec. 21, T. 17 N., R. 1 W., at Black Rock. Zero of gage is 229.98 feet above mean sea level.

DRAINAGE AREA.—7,400 square miles.

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

EXTREMES.—Maximum discharge during year, 41,100 second-feet Jan. 15 (gage height, 23.6 feet); minimum, 2,290 second-feet Sept. 9, 10 (gage height, 1.2 feet).

1929–30: Maximum discharge, that of Jan. 15, 1930; minimum, that of Sept. 9, 10, 1930.

REMARKS.—Records fair. Gage-height record furnished by U. S. 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	3,250	6,300	3,570	7,450	16,800	14,800	7,650	4,500	5,400	2,500	2,710	2,500
2	3,170	6,480	3,570	7,250	15,400	14,800	7,050	4,410	5,220	2,500	2,710	2,500
3	3,010	6,850	3,490	8,300	14,000	14,500	6,480	4,410	5,130	2,500	2,710	2,500
4	3,170	7,250	3,410	8,300	17,800	13,400	7,050	4,590	5,040	2,500	2,710	2,500
5	3,330	6,850	3,330	8,300	24,500	12,300	7,050	4,770	4,950	2,500	2,710	2,500
6	3,250	6,480	3,330	7,860	25,200	11,200	6,660	4,770	4,950	2,430	2,640	2,500
7	3,170	6,300	3,330	9,400	23,600	11,900	6,300	4,680	4,860	2,430	2,640	2,500
8	3,090	6,120	3,250	22,000	22,000	12,300	6,120	4,590	4,680	2,430	2,640	2,360
9	3,090	5,850	3,250	24,000	21,400	12,300	5,940	4,590	4,500	3,250	2,640	2,290
10	3,090	5,490	3,250	27,100	21,000	12,700	5,760	6,750	4,500	3,170	2,640	2,290
11	3,090	5,400	3,330	25,200	20,400	13,000	5,760	16,400	4,320	3,170	2,640	2,570
12	3,090	5,220	3,330	24,000	19,800	12,900	5,580	20,200	4,140	3,090	2,570	2,850
13	3,090	5,130	3,330	31,600	19,300	11,900	5,400	13,400	4,140	3,010	2,570	3,090
14	3,090	4,950	3,650	38,600	18,200	11,200	5,400	11,200	4,050	2,930	2,710	3,250
15	3,090	4,770	4,950	41,100	17,100	10,400	5,220	9,400	3,970	2,850	2,710	3,250
16	3,090	4,680	5,130	39,000	16,100	9,880	5,220	7,750	3,890	2,850	2,710	4,050
17	3,090	4,680	6,300	37,600	14,800	9,760	5,040	6,750	3,890	2,850	2,710	3,810
18	3,090	4,590	11,100	36,900	13,800	9,520	5,040	7,550	3,730	2,850	2,710	3,810
19	3,090	4,500	15,600	36,900	12,500	13,200	4,950	7,250	3,650	2,850	2,850	3,650
20	3,090	4,230	14,800	36,600	11,600	13,300	4,950	6,750	3,490	2,850	2,850	3,490
21	3,090	4,050	14,800	35,800	10,600	12,700	4,860	6,570	3,410	2,850	2,850	3,490
22	3,090	4,050	13,300	35,200	10,100	11,900	4,770	6,300	3,410	2,780	2,780	3,330
23	3,010	3,890	11,200	34,000	10,400	11,100	4,770	6,300	3,330	2,780	2,780	3,250
24	3,010	3,810	10,400	32,200	11,000	9,880	4,680	6,660	3,250	2,780	2,710	3,250
25	3,010	3,730	10,100	29,800	10,500	9,760	4,680	6,480	3,010	2,850	2,710	3,250
26	3,010	3,650	10,100	27,400	12,300	9,520	4,680	6,300	2,850	2,780	2,710	3,170
27	2,930	3,650	9,180	25,200	13,300	9,180	4,590	6,120	2,710	2,780	2,640	3,170
28	2,930	3,650	8,740	23,400	13,300	8,850	4,500	6,120	2,710	2,780	2,570	3,170
29	2,850	3,570	8,300	22,400	-------	8,300	4,500	5,850	2,570	2,780	2,570	3,090
30	2,850	3,570	8,080	20,400	-------	8,080	4,500	5,670	2,500	2,710	2,500	3,090
31	4,500	-------	7,970	18,200	-------	7,860	-------	5,580	-------	2,710	2,500	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	4,500	2,850	3,120	0.422	0.49	192,000
November	7,250	3,570	4,990	.674	.75	297,000
December	15,600	3,250	7,020	.949	1.09	432,000
January	41,100	7,250	25,200	3.41	3.93	1,550,000
February	25,200	10,100	16,300	2.20	2.29	905,000
March	14,800	7,860	11,400	1.54	1.78	701,000
April	7,650	4,500	5,500	.743	.83	327,000
May	20,200	4,410	7,180	.970	1.12	441,000
June	5,400	2,500	3,940	.532	.59	234,000
July	3,250	2,430	2,780	.376	.43	171,000
August	2,850	2,500	2,680	.362	.42	165,000
September	4,050	2,290	3,020	.408	.47	180,000
The year	41,100	2,290	7,730	1.04	14.19	5,600,000

CURRENT RIVER AT VAN BUREN, MO.

LOCATION.—Chain gage in NE. ¼ NW. ¼ sec. 25, T. 27 N., R. 1 W., at bridge on State highway 60 in Van Buren. Zero of gage is 445.79 feet above mean sea level.

DRAINAGE AREA.—1,640 square miles.

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

EXTREMES.—Maximum discharge during year, 22,300 second-feet Jan. 15 (gage height, 10.32 feet); minimum, 675 second-feet Aug. 7 (gage height, 1.56 feet).

1921–1930: Maximum discharge, 49,300 second-feet June 10, 1928 (gage height, 16.45 feet); minimum, 542 second-feet Sept. 6, 8, 9, 12, 1925.

Maximum stage known, 26.0 feet Mar. 26, 1904.

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	1,030	6,380	1,030	1,220	1,780	3,840	1,380	1,170	1,080	905	785	748
2	1,030	4,160	1,080	1,430	1,780	3,520	1,430	1,170	1,080	905	748	748
3	1,030	3,370	1,030	1,660	1,780	2,920	1,540	1,170	1,030	865	748	710
4	1,080	2,470	1,030	1,660	3,370	2,620	1,430	1,170	1,030	865	748	710
5	1,120	2,180	1,030	1,540	5,720	2,470	1,430	1,170	1,030	865	748	710
6	1,080	2,040	1,030	1,540	4,660	2,180	1,430	1,120	1,030	865	748	710
7	1,080	1,910	1,030	1,780	3,840	2,470	1,320	1,170	1,030	825	710	785
8	1,080	1,660	1,030	1,780	3,370	4,160	1,320	1,220	1,030	865	748	825
9	1,030	1,540	988	1,910	2,920	3,680	1,270	1,170	988	905	748	825
10	1,080	1,430	1,030	1,780	2,620	3,220	1,270	1,270	988	945	710	825
11	1,080	1,430	988	1,910	2,470	2,920	1,220	1,780	988	865	748	825
12	1,120	1,430	1,030	2,470	2,320	2,620	1,170	2,180	1,030	865	748	865
13	1,540	1,320	988	9,200	2,320	2,470	1,220	1,780	1,080	865	825	905
14	1,540	1,320	1,030	16,200	2,320	2,320	1,320	1,660	1,030	825	905	905
15	1,320	1,320	1,170	18,800	2,040	2,180	1,270	1,540	988	825	825	988
16	1,170	1,270	1,430	7,320	1,910	2,180	1,270	1,430	988	825	905	1,320
17	1,120	1,270	1,430	5,280	1,780	2,040	1,320	1,430	988	825	865	1,780
18	1,120	1,220	3,220	4,480	1,780	1,910	1,320	1,430	988	825	825	1,380
19	1,120	1,170	3,220	3,680	1,660	1,910	1,220	1,660	988	785	785	1,170
20	1,120	1,120	2,620	3,370	1,660	1,780	1,270	1,660	988	825	785	1,030
21	1,080	1,120	2,320	3,220	1,660	1,780	1,220	1,540	945	785	785	945
22	1,080	1,120	1,910	2,770	1,780	1,660	1,220	1,430	945	825	748	865
23	1,120	1,120	1,780	2,470	2,040	1,660	1,270	1,380	945	825	785	865
24	1,120	1,120	1,660	2,320	2,770	1,660	1,220	1,380	905	865	748	865
25	1,030	1,120	1,540	2,180	2,920	1,660	1,220	1,270	905	825	748	825
26	1,080	1,120	1,430	2,180	8,600	1,660	1,170	1,220	905	865	748	785
27	1,080	1,080	1,380	2,180	6,380	1,660	1,170	1,220	905	825	748	785
28	1,120	1,170	1,320	2,040	4,660	1,540	1,170	1,170	905	825	748	748
29	1,120	1,080	1,380	2,040	-------	1,430	1,170	1,170	865	785	710	748
30	1,170	1,080	1,320	1,910	-------	1,430	1,170	1,170	905	785	710	748
31	1,660	-------	1,220	1,910	-------	1,430	-------	1,120	-------	785	748	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,660	1,030	1,150	0.701	0.81
November	6,380	1,080	1,700	1.04	1.16
December	3,220	988	1,440	.878	1.01
January	18,800	1,220	3,680	2.24	2.58
February	8,600	1,660	2,960	1.80	1.87
March	4,160	1,430	2,290	1.40	1.61
April	1,540	1,170	1,280	.780	.87
May	2,180	1,120	1,370	.835	.96
June	1,080	865	983	.599	.67
July	945	785	843	.514	.59
August	905	710	770	.470	.54
September	1,780	710	898	.548	.61
The year	18,800	710	1,610	.982	13.28

CURRENT RIVER AT DONIPHAN, MO.

LOCATION.—Chain gage in N. ½ sec. 27, T. 23 N., R. 2 E., at bridge on State highway 42, three-quarters of a mile west of Doniphan. Datum of gage was lowered 1.0 foot Oct. 1. Zero of gage is 322.30 feet above mean sea level, new datum.

DRAINAGE AREA.—2,030 square miles.

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

EXTREMES.—Maximum discharge during year, 25,500 second-feet Jan. 15 (gage height, 12.10 feet); minimum discharge, 1,180 second-feet several days during August and September; minimum gage height, 0.52 foot Sept. 5.

1921–1930: Maximum discharge, 48,000 second-feet Apr. 15, 1927 (gage height, 18.30 feet, present datum); minimum, 1,020 second-feet Aug. 27 to Sept. 14, 1925.

Maximum stage known, 26.5 feet, present datum, during August, 1915.

REMARKS.—Records fair. Discharge estimated June 10, 11.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,620	4,170	1,620	2,260	3,170	6,660	2,510	2,030	1,810	1,540	1,240	1,300
2	1,620	8,300	1,620	2,510	3,170	5,760	2,510	1,920	1,810	1,460	1,240	1,240
3	1,620	5,260	1,620	2,770	3,170	4,940	2,510	1,920	1,810	1,460	1,180	1,240
4	1,710	4,170	1,620	3,030	4,470	4,470	2,640	1,920	1,810	1,460	1,180	1,180
5	1,810	3,450	1,620	2,900	8,300	4,170	2,510	1,920	1,810	1,380	1,240	1,180
6	1,810	3,030	1,620	2,770	9,100	4,020	2,510	1,920	1,710	1,380	1,240	1,180
7	1,710	2,770	1,620	5,940	7,380	4,020	2,380	1,920	1,710	1,460	1,180	1,240
8	1,620	2,510	1,710	5,940	6,300	4,780	2,380	1,920	1,710	1,460	1,180	1,300
9	1,620	2,380	1,710	5,100	5,420	6,120	2,260	1,920	1,710	1,460	1,180	1,380
10	1,620	2,260	1,710	5,420	4,940	5,420	2,260	2,140	1,620	1,380	1,240	1,380
11	1,620	2,140	1,620	4,620	4,470	4,940	2,260	2,380	1,620	1,380	1,180	1,300
12	1,810	2,140	1,620	4,620	4,170	4,470	2,260	3,030	1,710	1,380	1,180	1,300
13	2,030	2,030	1,710	12,400	4,170	4,170	2,140	3,170	1,810	1,380	1,240	1,380
14	2,510	2,030	1,810	17,600	4,020	3,870	2,140	2,900	1,710	1,380	1,380	1,380
15	2,260	2,030	2,140	25,500	3,730	3,590	2,140	2,640	1,710	1,300	1,380	1,540
16	2,140	2,030	2,900	19,400	3,590	3,450	2,260	2,510	1,710	1,300	1,460	2,140
17	1,920	1,920	3,310	9,500	3,450	3,310	2,260	2,510	1,710	1,300	1,460	3,450
18	1,920	1,920	4,470	7,740	3,310	4,020	2,140	2,510	1,620	1,300	1,380	2,510
19	1,810	1,810	6,120	6,840	3,170	3,590	2,140	2,770	1,540	1,300	1,300	2,030
20	1,920	1,810	5,100	6,130	3,170	3,450	2,030	3,030	1,540	1,240	1,240	1,710
21	1,810	1,810	4,320	5,760	3,030	3,310	2,030	2,770	1,540	1,240	1,240	1,540
22	1,810	1,810	3,870	5,580	3,030	3,030	2,030	2,510	1,540	1,300	1,240	1,460
23	1,710	1,810	3,450	4,620	3,310	3,030	2,030	2,510	1,460	1,300	1,240	1,460
24	1,620	1,810	3,170	4,170	3,870	3,030	2,030	2,260	1,460	1,300	1,180	1,460
25	1,540	1,710	2,900	4,020	4,780	2,900	2,030	2,260	1,460	1,380	1,180	1,380
26	1,540	1,710	2,770	3,870	6,840	2,900	1,920	2,140	1,460	1,300	1,240	1,380
27	1,540	1,710	2,640	3,730	11,000	2,770	1,920	2,030	1,460	1,300	1,240	1,300
28	1,620	1,620	2,510	3,590	7,920	2,640	1,920	2,030	1,460	1,300	1,240	1,300
29	1,620	1,620	2,510	3,450	-------	2,640	1,920	1,920	1,380	1,240	1,180	1,300
30	1,810	1,620	2,380	3,310	-------	2,640	1,920	1,920	1,540	1,240	1,180	1,240
31	2,030	-------	2,260	3,310	-------	2,510	-------	1,810	-------	1,240	1,240	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,510	1,540	1,790	0.882	1.02
November	8,300	1,620	2,510	1.24	1.38
December	6,120	1,620	2,580	1.27	1.46
January	25,500	2,260	6,400	3.15	3.63
February	11,000	3,030	4,870	2.40	2.50
March	6,660	2,510	3,890	1.92	2.21
April	2,640	1,920	2,200	1.08	1.20
May	3,170	1,810	2,290	1.13	1.30
June	1,810	1,380	1,630	.803	.90
July	1,540	1,240	1,350	.665	.77
August	1,460	1,180	1,250	.616	.71
September	3,450	1,180	1,510	.744	.83
The year	25,800	1,180	2,680	1.32	17.96

ROUND SPRING AT ROUND SPRING, MO.

LOCATION.—In sec. 20, T. 30 N., R. 4 W., at Round Spring, Mo.
RECORDS AVAILABLE.—October, 1928, to September, 1930.
EXTREMES.—Maximum discharge during period (estimated), 220 second-feet during backwater from Current River May 13, 1929; minimum, 17 second-feet Aug. 1–9, 22, 26–29, Sept. 1, 2, 5, 6, 9, 12, 1930.
REMARKS.—Records fair except those estimated, which are poor.

Daily discharge, in second-feet, 1928–1930

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	-------	29	49	26	55	111	37	43	80	49	35	29
2	-------	28	41	26	52	76	36	78	70	49	36	31
3	-------	28	39	24	47	73	36	e 70	66	47	35	29
4	-------	28	37	24	43	59	35	e 62	59	46	33	29
5	-------	28	36	30	42	52	36	54	57	43	35	32
6	-------	28	34	41	39	49	35	e 140	57	42	33	30
7	-------	28	35	33	37	46	35	e 180	55	42	35	28
8	-------	28	35	28	35	43	75	e 160	54	43	66	30
9	-------	28	36	30	33	41	e 160	e 160	50	43	98	30
10	-------	28	33	35	33	38	e 160	e 140	49	42	170	30
11	-------	28	33	33	30	37	e 150	e 120	47	43	111	26
12	-------	27	32	32	30	37	e 140	e 140	47	44	88	28
13	-------	27	34	28	29	37	e 130	e 220	e 160	42	62	e 27
14	-------	28	35	28	28	36	e 120	e 200	e 150	42	55	e 27
15	-------	28	35	27	29	e 140	e 160	e 190	e 140	44	49	26
16	-------	29	37	27	29	e 120	e 148	e 180	e 130	61	41	26
17	-------	28	37	26	29	108	e 136	e 180	e 120	43	40	27
18	-------	31	58	26	30	78	e 124	e 170	111	41	39	27
19	-------	30	47	32	30	68	111	e 170	66	43	38	28
20	-------	30	42	32	30	59	101	e 170	43	39	35	26
21	-------	26	39	30	31	55	80	e 160	78	43	38	25
22	-------	26	37	33	29	52	70	e 160	73	37	34	24
23	-------	25	33	30	28	49	63	e 160	63	38	35	24
24	-------	27	32	41	29	42	59	152	57	37	37	24
25	-------	30	30	e 200	108	41	57	132	55	36	38	24
26	-------	25	30	e 180	e 160	38	54	132	50	36	33	27
27	-------	25	28	e 160	e 145	38	50	132	49	35	33	31
28	-------	25	30	140	136	37	43	114	49	41	31	33
29	-------	26	28	108	-------	36	37	98	50	38	33	24
30	-------	50	26	83	-------	37	37	89	47	37	32	27
31	29	-------	26	75	-------	37	-------	83	-------	36	30	------
1929-30												
1	26	89	23	30	e 36	115	e 32	26	e 26	22	17	17
2	28	63	22	41	35	e 98	e 32	25	27	23	17	17
3	24	54	24	37	36	82	32	25	28	23	17	18
4	28	43	24	35	140	73	31	e 25	28	24	17	18
5	26	38	26	32	142	66	30	25	24	23	17	17
6	24	35	24	31	112	62	e 30	25	24	22	e 17	17
7	25	33	25	35	93	91	30	28	25	22	17	18
8	24	32	24	35	73	95	30	28	e 25	23	17	18
9	22	28	25	32	e 68	88	30	26	25	23	17	17
10	23	28	22	33	e 62	77	29	25	25	22	18	18
11	25	28	22	34	57	77	29	55	25	22	18	18
12	27	27	23	e 50	53	60	28	e 44	25	23	19	17
13	27	27	22	e 150	49	55	28	34	25	22	19	18
14	24	27	e 22	e 200	45	53	28	32	24	22	20	e 23
15	25	26	22	e 192	40	49	32	31	24	e 22	20	e 28
16	24	28	23	e 183	42	47	30	29	25	22	19	32
17	24	28	62	e 175	41	46	30	e 29	26	21	19	30
18	24	30	59	166	42	46	28	e 28	25	20	19	25
19	25	28	55	112	39	45	29	28	24	20	19	23
20	26	26	49	95	37	42	29	28	22	e 20	21	22
21	27	30	43	86	37	39	28	28	22	19	18	20
22	26	26	43	73	e 37	39	28	28	23	20	e 17	19
23	26	24	42	62	e 40	41	28	29	23	21	18	19
24	26	26	35	57	e 80	40	27	28	24	19	18	19
25	26	25	32	52	e 120	36	27	e 29	24	19	18	19
26	26	25	30	e 48	e 170	34	27	30	24	19	17	19
27	25	24	30	43	e 150	34	26	25	24	18	17	19
28	26	22	29	41	137	37	26	e 25	23	18	17	19
29	26	22	28	40	-------	e 34	27	25	23	18	17	18
30	26	21	27	37	-------	32	27	25	22	19	18	18
31	134	-------	e 28	36	-------	31	-------	e 25	-------	18	18	------

e Estimated.

Monthly discharge, in second-feet, of Round Spring at Round Spring, Mo., 1928–1930

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
1928–29				1929–30			
November	50	25	28.4	October	134	22	28.9
December	58	26	35.6	November	89	21	32.1
January	200	24	53.8	December	62	22	31.1
February	160	28	49.1	January	200	30	73.3
March	140	36	57.1	February	170	35	71.9
April	160	35	83.8	March	115	31	56.9
May	220	43	137	April	32	26	28.9
June	160	43	72.7	May	55	25	28.8
July	61	35	42.0	June	28	22	24.5
August	170	30	48.6	July	24	18	20.9
September	33	24	27.6	August	21	17	18.0
				September	32	17	20.0
				The year	200	17	36.1

BIG SPRING NEAR VAN BUREN, MO.

LOCATION.—Staff gage in sec. 6, T. 26 N., R. 1 E., 600 feet above mouth of Spring Branch and 4 miles southeast of Van Buren. Zero of gage is 429.8 feet above mean sea level.

RECORDS AVAILABLE.—January to June, 1922; April, 1923, to September, 1930.

EXTREMES.—Maximum discharge during year, 920 second-feet Jan. 10; minimum, 320 second-feet Sept. 28–30 (gage height, 0.36 foot).

1922–1930: Maximum discharge (estimated), 1,100 second-feet during backwater from Current River in June, 1928; minimum, 268 second-feet Sept. 17–24, 1926.

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	a 398	496	a 379	458	543	569	453	400	395	363	341	328
2	395	624	377	468	a 543	a 574	453	395	395	363	341	328
3	395	a 576	377	489	543	578	458	390	395	359	341	328
4	400	529	377	500	a 650	599	458	a 390	390	359	341	324
5	404	547	377	a 485	775	638	453	390	390	359	341	324
6	a 400	502	377	473	800	685	a 450	386	386	359	341	324
7	395	481	377	669	a 850	a 705	448	390	381	354	341	324
8	395	466	377	750	a 843	a 725	443	386	381	354	337	328
9	390	450	372	800	a 835	a 670	438	381	381	354	337	328
10	390	a 445	372	920	828	610	a 433	390	381	354	337	328
11	390	440	372	a 910	800	645	428	a 450	377	350	337	328
12	404	436	372	a 910	775	624	a 425	500	381	350	337	328
13	a 424	426	381	a 900	800	624	423	478	381	350	337	328
14	443	420	400	a 900	706	599	428	468	377	350	341	328
15	423	416	a 500	a 900	638	599	428	458	377	350	337	332
16	413	a 414	800	a 860	599	a 575	428	453	377	350	341	428
17	404	a 412	750	828	578	552	418	443	377	350	341	458
18	400	411	a 900	a 835	560	543	418	a 464	372	350	337	390
19	395	402	a 870	842	543	536	416	484	372	350	332	354
20	a 395	397	856	750	529	529	a 412	473	372	350	332	341
21	395	393	a 800	775	516	511	409	463	372	350	332	332
22	395	395	a 720	775	a 542	500	409	443	368	346	328	328
23	390	395	624	800	a 563	a 500	404	438	368	346	328	328
24	386	a 393	569	a 792	594	500	400	433	368	346	328	328
25	386	390	a 545	a 784	543	a 495	400	418	368	346	328	328
26	381	390	522	775	624	489	400	418	368	348	328	324
27	a 385	386	500	685	800	473	a 400	409	363	a 347	328	324
28	a 389	a 386	484	a 650	578	468	400	409	363	346	328	320
29	393	386	478	610	-------	463	395	409	363	341	328	320
30	388	381	468	588	-------	a 460	400	400	363	a 341	328	320
31	a 410	-------	463	560	-------	458	-------	400	-------	341	328	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	443	381	398	May	500	381	426
November	624	381	439	June	395	363	377
December	900	372	521	July	363	341	351
January	920	458	724	August	341	328	335
February	850	516	661	September	458	320	338
March	725	458	565				
April	458	395	424	The year	920	320	462

a Estimated.

ELEVEN POINT RIVER NEAR BARDLEY, MO.

LOCATION.—Chain gage in NW. ¼ sec. 20, T. 23 N., R. 2 W., at bridge on State highway 42, 7 miles southwest of Bardley. Zero of gage is about 410.8 feet above mean sea level.

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

EXTREMES.—Maximum discharge during year, 5,800 second-feet Jan. 13 (gage height, 8.00 feet); minimum, 322 second-feet Sept. 29, 30 (gage height, 2.10 feet).

1921–1930: Maximum discharge, 27,800 second-feet Apr. 14, 1927 (gage height, 18.74 feet); minimum, 210 second-feet Sept. 6–11, 1925 (gage height, 1.06 feet).

Maximum stage known, 19.7 feet in August, 1915.

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	535	1,060	475	740	1,060	1,280	845	635	705	505	420	345
2	535	987	475	740	1,060	1,200	880	635	705	505	395	345
3	535	915	475	740	1,060	1,200	845	635	670	505	395	345
4	600	845	445	705	1,580	1,130	845	635	670	475	395	345
5	565	810	445	705	2,350	1,130	845	635	670	475	395	345
6	535	775	445	705	1,950	1,130	810	635	635	475	395	345
7	535	740	475	1,500	1,720	1,200	810	635	635	475	395	345
8	535	705	475	1,350	1,580	1,130	775	635	635	475	395	345
9	535	670	475	1,350	1,500	1,130	775	635	635	475	395	370
10	535	670	445	1,350	1,350	1,130	775	740	600	475	395	345
11	535	635	445	1,200	1,350	1,060	740	1,130	600	475	395	345
12	535	635	445	1,350	1,350	1,060	740	1,200	600	445	395	370
13	535	635	505	5,560	1,280	1,060	740	1,130	600	445	395	370
14	535	600	635	5,560	1,200	987	740	1,060	600	445	395	370
15	535	600	740	4,120	1,130	987	740	1,060	600	445	395	395
16	535	565	1,130	2,440	1,130	987	740	987	600	445	395	420
17	535	565	1,280	2,100	1,060	987	740	987	565	445	395	420
18	505	565	1,420	1,800	1,060	1,060	740	987	565	445	395	395
19	505	535	1,420	1,650	1,060	1,130	705	987	565	445	395	370
20	535	535	1,200	1,580	1,060	1,060	705	915	565	445	395	370
21	505	535	1,130	1,500	987	1,060	705	915	535	445	395	370
22	505	505	1,060	1,420	1,060	1,060	670	880	535	445	370	345
23	505	505	987	1,350	1,060	987	670	880	535	445	370	345
24	505	505	915	1,280	1,130	987	670	845	535	445	370	345
25	505	505	915	1,200	1,200	987	670	810	505	445	370	345
26	505	505	880	1,200	1,350	987	635	810	505	445	370	345
27	505	505	845	1,200	1,420	915	635	775	505	420	370	345
28	535	505	810	1,130	1,350	915	635	775	505	420	370	345
29	505	505	810	1,130	-------	915	635	740	505	420	345	322
30	505	475	740	1,060	-------	880	635	740	505	420	370	322
31	775	-------	740	1,060	-------	880	-------	705	-------	420	395	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	775	505	535	May	1,200	635	831
November	1,060	475	637	June	705	505	586
December	1,420	445	764	July	505	420	455
January	5,560	705	1,640	August	420	345	388
February	2,350	987	1,300	September	420	322	358
March	1,280	880	1,050				
April	880	635	736	The year	5,560	322	771

ELEVEN POINT RIVER NEAR ELEVEN POINT, ARK.

LOCATION.—Chain gage in SE. ¼ SE. ¼ sec. 30, T. 20 N., R. 1 W., 2 miles southwest of Eleven Point and 15 miles above mouth.
DRAINAGE AREA.—1,090 square miles.
RECORDS AVAILABLE.—November, 1929, to September, 1930.
EXTREMES.—Maximum discharge during year, 11,300 second-feet Jan. 14 (gage height, 13.01 feet); minimum, 450 second-feet Sept. 29 (gage height, 2.63 feet).
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	1,420	690	970	1,570	1,890	1,190	900	970	690	570	630
2	1,260	690	1,120	1,570	1,810	1,260	900	970	690	510	510
3	1,190	690	1,120	1,570	1,650	1,260	1,040	900	690	570	510
4	1,120	690	1,040	5,110	1,650	1,190	970	900	690	570	510
5	970	690	970	4,360	1,650	1,190	970	900	690	570	510
6	970	690	970	3,760	1,570	1,120	900	900	690	570	510
7	970	690	7,050	3,180	1,890	1,120	900	900	690	570	510
8	970	690	3,560	1,730	1,810	1,120	900	830	690	570	510
9	900	690	3,180	2,430	1,650	1,120	900	830	690	570	570
10	900	690	3,080	2,250	1,570	1,040	3,180	830	630	570	510
11	830	570	2,340	2,070	1,570	1,040	3,760	830	690	570	510
12	830	690	2,250	1,890	1,490	1,040	2,160	830	630	570	510
13	830	690	9,380	1,890	1,490	1,040	1,650	830	630	570	570
14	830	830	10,900	1,810	1,420	1,040	1,570	830	630	570	510
15	900	1,120	8,760	1,730	1,420	1,040	1,490	760	630	570	630
16	900	1,120	5,780	1,570	1,420	1,040	1,420	830	630	570	570
17	830	1,490	3,960	1,570	1,340	1,040	1,340	830	630	570	570
18	830	4,360	3,180	1,490	1,570	1,040	1,420	760	630	570	570
19	830	2,250	2,800	1,490	2,070	970	1,340	760	630	630	570
20	760	1,810	2,430	1,420	1,730	970	1,340	760	630	570	570
21	760	1,570	2,430	1,420	1,650	970	1,260	760	630	570	570
22	760	1,420	2,070	1,420	1,570	970	1,190	760	630	510	510
23	760	1,260	1,890	1,490	1,490	970	1,190	760	630	570	510
24	690	1,260	1,890	1,570	1,490	970	1,120	760	630	570	510
25	690	1,190	1,730	1,570	1,490	900	1,120	760	630	510	570
26	690	1,120	1,730	2,160	1,420	900	1,120	760	630	510	510
27	690	1,120	1,730	2,070	1,340	900	1,040	690	570	510	510
28	690	1,120	1,730	2,070	1,340	900	1,040	690	570	510	510
29	690	1,040	1,650	-------	1,260	900	1,040	690	630	510	450
30	690	970	1,570	-------	1,260	970	970	690	570	510	510
31	-------	970	1,570	-------	1,190	-------	970	-------	570	510	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
November	1,420	690	872	0.800	0.89	51,900
December	4,360	570	1,120	1.03	1.19	68,900
January	10,900	970	3,060	2.81	3.24	188,000
February	5,110	1,420	2,080	1.91	1.99	116,000
March	2,070	1,190	1,550	1.42	1.64	95,300
April	1,260	900	1,040	.954	1.06	61,900
May	3,760	900	1,330	1.22	1.41	81,800
June	970	690	809	.742	.83	48,100
July	690	570	642	.589	68	39,500
August	630	510	555	.509	.59	34,100
September	630	450	534	.490	.55	31,800
The period						817,000

GREER SPRING AT GREER, MO.

LOCATION.—Staff gage in SE. ¼ SW. ¼ sec. 36, T. 25 N., R. 4 W., 500 feet below lower outlet of spring and 1 mile north of Greer. Zero of gage is about 539.0 feet above mean sea level.

RECORDS AVAILABLE.—August to December, 1904; November, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 600 second-feet Jan. 25 (gage height, 1.05 feet); minimum, 243 second-feet Sept. 30.

1921–1930: Maximum discharge, 903 second-feet May 26, 1927 (gage height, 1.43 feet); minimum, 151 second-feet Aug. 19, 1925.

REMARKS.—Records poor prior to Aug. 1 and fair after that date. Gage read three times weekly; discharge estimated for remaining days.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	319	428	280	451	518	540	457	382	529	307	275	260
2	321	457	280	448	508	534	457	390	529	303	275	262
3	323	447	280	445	497	529	454	399	525	300	268	263
4	323	437	280	442	497	537	450	382	520	300	260	265
5	323	437	280	439	487	545	447	366	518	300	264	262
6	323	427	285	437	477	552	442	372	508	300	268	260
7	323	417	290	500	477	558	437	377	497	300	270	260
8	325	408	285	490	477	564	408	382	472	297	268	260
9	327	399	280	487	487	576	408	390	447	293	265	260
10	329	394	275	502	497	588	408	399	441	290	260	260
11	323	390	270	518	490	580	404	423	435	288	265	260
12	317	382	280	518	483	572	399	447	427	285	267	262
13	317	374	285	518	477	564	404	462	366	282	268	265
14	317	366	290	529	467	552	408	477	366	280	270	256
15	321	351	313	540	457	540	405	477	366	280	270	257
16	325	336	336	540	457	540	402	487	366	280	270	258
17	329	336	351	552	457	540	399	497	360	280	270	259
18	332	336	366	564	464	540	390	513	354	278	270	260
19	336	332	366	564	470	518	382	529	350	275	272	247
20	336	328	374	564	477	497	382	552	346	270	273	244
21	336	323	382	572	492	487	382	552	343	265	275	244
22	338	320	386	580	507	477	377	552	340	264	270	244
23	340	317	390	588	512	477	372	552	336	262	270	246
24	343	308	404	594	518	477	366	552	336	260	272	248
25	346	300	417	600	525	470	366	558	330	260	275	252
26	350	297	417	570	532	464	366	564	323	260	273	252
27	340	294	427	540	540	457	366	556	317	262	272	252
28	329	290	437	533	540	457	366	548	311	265	270	248
29	324	285	447	526	-------	457	371	540	311	268	268	244
30	320	280	457	518	-------	457	376	534	311	271	265	243
31	399	-------	454	518	-------	457	-------	529	-------	275	262	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	399	317	331	May	564	366	475
November	457	280	360	June	529	311	399
December	457	270	344	July	307	260	281
January	600	437	522	August	275	260	269
February	540	457	492	September	265	243	255
March	588	457	519				
April	457	366	402	The year	600	243	387

LITTLE RED RIVER NEAR HEBER SPRINGS, ARK.

LOCATION.—Staff gage in NE. ¼ sec. 1, T. 10 N., R. 10 W., 4 miles northeast of Heber Springs.
DRAINAGE AREA.—1,160 square miles.
RECORDS AVAILABLE.—September, 1927, to September, 1930.
EXTREMES.—Maximum discharge during year, 70,200 second-feet May 11 (gage height, 38.90 feet); no flow Oct. 1–19, 22–30, Aug. 2–18.
1927–1930: Maximum discharge, 88,800 second-feet Apr. 6, 1928 (gage height, 42.35 feet); minimum, that of Oct. 1–19, 22–30, 1929, Aug. 2–18, 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	0	430	122	520	1,850	2,460	740	290	490	18	1	14
2	0	1,850	112	550	1,850	2,040	700	278	430	14	0	315
3	0	1,070	105	1,910	1,970	1,730	1,270	340	355	385	0	315
4	0	550	98	1,850	8,260	1,430	1,610	460	315	210	0	200
5	0	385	98	1,730	32,600	1,370	1,430	520	278	130	0	160
6	0	302	96	1,320	9,450	1,270	1,020	620	265	90	0	140
7	0	220	98	1,550	5,830	1,270	870	780	230	65	0	112
8	0	190	114	27,500	4,030	1,670	740	1,170	200	50	0	90
9	0	55	240	20,800	3,120	1,370	660	5,700	180	40	0	75
10	0	65	620	28,300	2,670	1,170	580	25,600	160	32	0	65
11	0	120	550	9,000	2,180	1,120	520	65,600	150	25	0	65
12	0	114	490	6,350	1,850	1,020	490	24,900	140	22	0	65
13	0	140	430	35,000	1,670	970	460	7,000	130	18	0	55
14	0	180	430	25,300	1,430	920	430	4,990	120	14	0	55
15	0	820	1,170	13,200	1,270	870	400	2,810	112	14	0	98
16	0	700	1,970	7,000	1,170	550	490	2,110	105	9	0	90
17	0	550	3,640	4,550	1,070	550	385	1,730	98	8	0	75
18	0	490	11,000	4,440	970	550	370	1,610	90	7	0	67
19	0	430	13,000	2,740	700	1,730	355	2,530	87	6	190	70
20	1	385	5,580	2,320	620	1,490	328	2,390	75	5	190	100
21	1	340	3,120	2,250	580	1,320	328	1,910	65	4	134	98
22	0	290	2,960	2,040	550	1,070	302	1,490	62	3	86	82
23	0	242	1,970	1,610	2,320	970	315	1,550	55	3	62	65
24	0	220	1,430	1,430	2,530	820	328	2,960	45	3	44	75
25	0	200	1,370	1,170	2,040	1,270	315	2,320	42	2	34	90
26	0	180	1,170	1,170	2,530	1,320	520	1,610	36	2	24	170
27	0	170	970	1,170	3,460	1,270	430	1,170	30	2	22	340
28	0	150	820	1,490	2,810	1,120	385	1,020	24	2	18	400
29	0	140	700	2,040	-------	870	340	780	20	1	18	328
30	0	130	620	2,250	-------	780	315	700	18	1	16	290
31	20	-------	550	2,040	-------	700	-------	550	-------	1	14	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	20	0	0.7	0.0006	0.0007	43
November	1,850	55	370	.319	.36	22,000
December	13,000	96	1,790	1.54	1.78	110,000
January	35,000	520	6,760	5.83	6.72	416,000
February	32,600	550	3,620	3.12	3.25	201,000
March	2,460	550	1,200	1.03	1.19	73,800
April	1,610	302	578	.498	.56	34,400
May	65,600	278	5,400	4.66	5.37	332,000
June	490	18	147	.127	.14	8,750
July	385	1	38.3	.033	.04	2,360
August	190	0	27.5	.024	.03	1,690
September	400	14	139	.120	.13	8,270
The year	65,600	0	1,670	1.44	19.57	1,210,000

CACHE RIVER AT PATTERSON, ARK.

LOCATION.—Staff gage in sec. 6, T. 7 N., R. 2 W., at Patterson. Zero of gage is 188.27 feet above mean sea level.

DRAINAGE AREA.—790 square miles.

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

EXTREMES.—Maximum discharge during year, 10,800 second-feet Jan. 15 (gage height, 11.5 feet); minimum, 51 second-feet Aug. 7–16 (gage height, 2.1 feet).

1928–1930: Maximum discharge, 12,100 second-feet June 27 and 28, 1928 (gage height, 11.8 feet); minimum, that of Aug. 7–16, 1930.

Maximum stage known, 17.1 feet in April, 1927, owing to break in White River levee.

REMARKS.—Records fair. Discharge interpolated Dec. 24, Feb. 21, Sept. 20, 27. 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	100	92	120	2,060	4,260	680	980	195	540	85	55	67
2	100	92	120	2,230	3,350	720	930	185	475	85	55	67
3	100	92	120	2,230	2,760	720	880	175	445	85	55	67
4	100	92	116	1,900	3,150	720	800	185	336	81	53	67
5	104	88	116	1,450	4,010	800	720	185	258	81	53	67
6	112	84	116	1,110	4,260	840	680	185	228	81	53	67
7	116	84	116	980	4,260	880	680	206	195	81	51	67
8	116	92	116	1,040	4,260	880	645	228	185	81	51	64
9	116	104	116	3,780	4,260	840	575	258	175	81	51	64
10	116	100	116	7,340	4,260	840	610	336	166	77	51	64
11	116	100	112	8,420	4,010	800	680	930	157	73	51	64
12	116	100	112	5,400	3,780	800	680	1,320	149	73	51	64
13	112	108	112	9,980	3,560	930	680	1,740	141	70	51	61
14	112	112	112	10,400	4,010	1,040	645	1,320	134	70	51	61
15	112	116	112	10,800	3,560	1,110	540	1,040	134	70	51	61
16	112	116	112	10,400	3,350	1,040	445	980	127	70	51	61
17	112	116	112	9,980	3,150	980	385	980	121	67	57	61
18	108	116	112	9,580	2,950	840	336	1,740	115	67	57	61
19	108	116	136	8,800	2,760	760	273	2,580	109	64	64	61
20	108	116	168	8,060	2,230	720	243	2,950	109	61	67	60
21	108	116	189	8,060	1,720	680	243	2,760	104	59	70	59
22	108	116	196	8,420	1,200	610	243	2,400	104	59	70	59
23	108	116	196	8,420	1,040	610	243	2,060	104	59	70	59
24	108	116	266	8,420	880	720	243	1,200	99	57	70	59
25	108	116	336	8,060	800	930	243	980	94	57	70	64
26	104	116	445	7,340	760	1,200	243	980	94	57	70	70
27	104	120	645	7,340	720	1,200	228	930	94	57	70	72
28	100	120	800	7,000	680	1,110	217	800	89	57	70	73
29	100	120	980	7,000	-------	980	206	680	89	57	70	73
30	96	120	1,320	6,660	-------	980	206	610	85	57	68	73
31	92	-------	1,900	5,700	-------	980	-------	575	-------	57	67	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	acre-feet
October	116	92	107	0.135	0.16	6,580
November	120	84	107	.135	.15	6,370
December	1,900	112	311	.394	.45	19,100
January	10,800	980	6,400	8.10	9.34	394,000
February	4,260	680	2,860	3.62	3.77	159,000
March	1,200	610	869	1.10	1.27	53,400
April	980	206	491	.622	.69	29,200
May	2,950	175	1,020	1.29	1.49	62,700
June	540	85	175	.222	.25	10,400
July	85	57	68.9	.087	.10	4,240
August	70	51	59.5	.075	.09	3,660
September	73	59	64.6	.082	.09	3,840
The year	10,800	51	1,040	1.32	17.85	752,000

ARKANSAS RIVER BASIN

ARKANSAS RIVER AT SYRACUSE, KANS.

LOCATION.—Water-stage recorder in NW. ¼ sec. 18, T. 24 S., R. 40 W., at highway bridge half a mile south of Syracuse.

DRAINAGE AREA.—25,500 square miles.

RECORDS AVAILABLE.—August, 1902, to July, 1906; June, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 4,030 second-feet Aug. 16 (gage height, 5.04 feet); minimum, 2 second-feet July 19 (gage height 1.66 feet).

1902–1906, 1921–1930: Maximum stage, about 9.75 feet on June 6, 1921 (discharge not determined); minimum discharge, 2 second-feet Aug. 16, 1930, and during August, 1926.

REMARKS.—Records good except those for period of ice effect, Jan. 13 to Feb. 2, and during April and May, which are fair. Diversions for irrigation above the station. Datum of gage lowered 2 feet on Oct. 1, 1929.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	178	486	452	235	301	47	65	220	10	20	608
2	132	206	459	368	256	355	43	45	307	9	12	432
3	104	206	374	251	472	295	48	52	499	8	36	361
4	86	187	240	256	513	295	50	45	342	8	48	234
5	65	201	387	295	486	307	41	32	283	8	47	187
6	47	210	465	312	548	312	32	26	215	9	36	272
7	48	229	615	a 160	592	278	28	18	174	8	20	555
8	50	256	540	a 120	608	240	19	13	187	8	12	540
9	52	312	a 121	a 90	533	220	12	12	178	8	10	548
10	58	406	a 413	a 100	506	201	12	60	158	6	10	419
11	60	368	a 380	a 470	413	178	12	229	138	6	8	479
12	a 63	361	a 342	a 230	432	158	10	330	146	5	8	683
13	a 63	342	a 312	230	452	138	9	191	132	18	9	479
14	107	336	a 283	180	452	132	11	150	76	121	43	387
15	150	324	201	140	368	124	8	114	50	41	107	312
16	174	336	245	a 120	307	121	11	114	54	13	1,230	261
17	150	283	240	a 110	324	114	33	128	45	6	1,550	240
18	124	312	56	100	295	121	38	506	26	4	a 998	215
19	a 102	330	a 67	90	289	114	23	a 770	22	3	a 740	187
20	a 91	318	a 150	140	278	110	11	a 1,120	20	9	a 600	166
21	86	301	135		261	76	8	a 674	18	20	a 548	158
22	79	336	124		224	56	8	406	17	24	a 486	150
23	72	387	146	180	245	52	8	318	13	27	a 368	138
24	94	393	187		267	58	8	272	13	22	a 240	128
25	a 142	380	229		295	47	9	240	12	20	240	121
26	a 170	472	289		283	45	11	220	12	a 20	251	118
27	a 170	632	330		267	47	54	196	12	19	312	110
28	158	700	324	230	267	48	170	182	11	17	301	121
29	138	624	355		-------	47	154	178	11	12	272	114
30	135	533	374		-------	47	154	170	10	14	1,140	124
31	138	-------	413		-------	48	-------	154	-------	33	1,190	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	174	47	104	6,400
November	700	178	349	20,800
December	615	56	299	18,400
January	470	90	209	12,900
February	608	224	374	20,800
March	355	45	151	9,280
April	170	8	36.1	2,150
May	1,120	12	227	14,000
June	499	10	113	6,720
July	121	3	17.3	1,060
August	1,550	8	351	21,600
September	683	110	295	17,600
The year	1,550	3	209	152,000

a Estimated.

ARKANSAS RIVER AT GARDEN CITY, KANS.

LOCATION.—Water-stage recorder in NW. ¼ sec. 19, T. 24 S., R. 32 W., half a mile south of Garden City.

DRAINAGE AREA.—28,800 square miles.

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

EXTREMES.—Maximum discharge during year, 880 second-feet Nov. 29 (gage height, 3.60 feet); no flow in June, July, August, and September.

1922–1930: Maximum discharge, 21,200 second-feet Aug. 9, 1929; maximum gage height, 7.86 feet June 18, 1923; no flow during several periods.

REMARKS.—Records good except those for period of ice effect, Jan. 11–25, and during March, April, and May, which are fair. Diversions for irrigation above station.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Aug.	Sept.
1	11	28	678	187	110	52	6	14	25	0	22
2	9	24	403	192	140	70	5	7	21	0	8
3	7	22	386	167	222	177	4	38	15	0	3
4	7	20	440	143	275	162	2	41	30	0	0
5	7	19	394	172	328	128	2	20	71	0	0
6	6	20	394	143	228	71	2	20	49	9	9
7	6	22	420	100	197	43	2	20	22	0	0
8	6	25	520	66	254	32	2	18	10	0	0
9	7	33	542	54	247	25	3	20	9	0	18
10	9	62	386	64	162	20	2	38	8	0	36
11	9	152	282		147	18	3	144	3	0	10
12	9	177	162		87	17	4	148	2	0	5
13	8	143	107	70	75	15	4	69	2	0	3
14	8	187	79		56	15	5	52	3	0	2
15	9	192	68		53	15	6	105	3	0	1
16	8	216	66		42	18	10	112	7	0	0
17	9	143	66		39	20	22	102	7	0	0
18	12	79	57	65	35	20	14	84	6	319	0
19	15	53	54		38	18	12	88	8	152	0
20	14	45	54		37	17	11	192	4	0	0
21	14	60	59		35	17	10	94	2	0	0
22	15	41	70		42	15	8	84	1	0	0
23	15	42	68	60	49	14	10	77	0	0	0
24	15	45	62		59	14	12	55	0	0	9
25	15	52	62		64	11	38	45	0	0	0
26	15	73	75	84	70	12	38	32	0	0	0
27	15	167	77	84	73	10	25	28	0	0	0
28	19	575	84	84	70	11	24	30	0	0	0
29	20	802	110	90	-------	9	25	52	0	0	0
30	35	750	147	96	-------	8	24	32	0	0	0
31	33	-------	157	98	-------	8	-------	24	-------	13	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	35	6	12.5	769
November	802	19	142	8,450
December	678	54	211	13,000
January	192	----------	90.3	5,550
February	328	35	116	6,440
March	177	8	34.9	2,150
April	38	2	11.2	666
May	192	7	60.8	3,740
June	71	0	10.3	613
August	319	0	15.6	959
September	36	0	3.90	232
The year	802	0	58.7	42,600

NOTE.—No flow during July.

ARKANSAS RIVER AT LARNED, KANS.

LOCATION.—Water-stage recorder in NE. ¼ sec. 5, T. 22 S., R. 16 W., half a mile south of Larned and half a mile above Pawnee River.

DRAINAGE AREA.—34,900 square miles.

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

EXTREMES.—Maximum discharge during year, 760 second-feet Dec. 2 and Feb. 8 (gage height, 3.59 feet); no flow during July, August, and September.

1922–1930: Maximum discharge, 14,300 second-feet Aug. 25, 1923 (gage height, 9.5 feet); no flow during several periods.

REMARKS.—Records fair except those for October and March to May, when control was unstable, and for Dec. 17–25 and Jan. 7 to Feb. 7, which are estimated. Diversions for irrigation above station.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June	July	Sept.
1	90		640	271		101	53	114	63	2	0
2	92	55	690	290		99	53	103	66	2	0
3	94		710	290	150	66	52	101	47	3	0
4	92	63	408	271			49	101	44	6	0
5	92	61	516	284			44	108	49	4	1
6	92	61	507	249	200		44	133	44	2	53
7	90	61	480		400		42	139	40	1	19
8	90	87	480	100	630	70	41	122	37	0	9
9	89	119	472		416		41	103	44	0	8
10	90	133	507		342		40	103	66	0	6
11	88	136	640		335		40	101	116	0	7
12	86	130	656		357		40	101	116	0	5
13	86	119	525	50	386	76	40	96	55	0	4
14	85	146	448		342	76	41	94	41	0	3
15	85	249	378		290	76	44	101	41	0	2
16	80	271	309		271	72	42	111	36	0	2
17	79	315			223	68	36	160	30	0	1
18	80	335		20	204	70	36	163	26	0	0
19	92	357			199	72	37	160	22	0	0
20	101	342			167	68	38	146	19	0	0
21	98	271	200		160	60	37	130	18	0	0
22	89	424			150	61	36		13	0	0
23		440		40	139	58	33		10	0	0
24		489			130	52	34		9	0	0
25		480			116	50	37	100	8	0	0
26	72	480	265		111	61	53		7	0	0
27		400	278		111	64	50		5	0	0
28		335	284	80	116	63	55	77	4	0	0
29		290	260		-------	55	77	70	3	0	0
30		343	191		-------	61	103	63	2	0	0
31		-------	208		-------	58	-------	55	-------	0	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	101	----------	84.1	5,170
November	489	----------	237	14,100
December	710	191	376	23,100
January	290	----------	99.5	6,120
February	630	----------	234	13,000
March	101	50	68.3	4,200
April	103	33	45.6	2,710
May	163	55	108	6,640
June	116	2	36.0	2,140
July	6	0	.645	40
September	53	0	4.00	238
The year	710	0	107	77,500

NOTE.—No flow during August.

ARKANSAS RIVER NEAR WICHITA, KANS.

LOCATION.—Chain gage on line between secs. 7 and 18, T. 27 S., R. 1 E., 1½ miles above mouth of Little Arkansas River.
DRAINAGE AREA.—40,300 square miles.
RECORDS AVAILABLE.—June, 1921, to September, 1930.
EXTREMES.—Maximum discharge during year, 2,840 second-feet June 16 (gage height, 9.92 feet); minimum, 41 second-feet Aug. 12 (gage height, 5.41 feet). 1921–1930: Maximum discharge, 12,000 second-feet Aug. 18, 1927 (gage height, 14.75 feet); no flow for periods during several years.
REMARKS.—Records fair except those for period of ice effect, Dec. 3–6, 18–31, Jan. 9–28, Mar. 7–9, 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	220	260	610	640	480	365	275	385	455	176	66	146
2	220	245	580	610	480	385	292	408	455	166	66	146
3	220	260		580	480	385	292	365	505	156	66	136
4	220	275		530	505	385	292	385	555	156	63	146
5	220	275	600	530	555	365	275	430	640	166	61	156
6	220	292		530	555	345	275	480	735	156	57	176
7	220	310	735	555		328	292	670	840	156	54	198
8	220	345	700	580	565	328	275	1,100	960	146	50	209
9	232	365	670			292	292	1,460	1,100	146	45	232
10	220	385	700		580	292	292	1,650	1,280	146	46	275
11	220	430	735		555	292	275	1,850	1,550	136	44	328
12	209	455	735	500	555	328	292	1,750	1,850	136	42	365
13	209	455	770		530	310	275	1,650	2,170	126	44	455
14	220	480	770		505	292	292	1,650	2,610	126	46	505
15	209	505	735		480	292	310	1,460	2,720	108	49	530
16	209	505	735		480	275	292	1,280	2,840	108	49	505
17	209	530	735		455	292	292	1,100	2,500	100	48	455
18	209	555		250	430	310	292	960	2,170	94	51	385
19	220	555	675		430	275	275	920	1,850	88	60	345
20	232	580			385	292	292	880	1,460	88	76	275
21	232	580			385	310	292	805	1,060	82	82	275
22	232	580			385	292	310	770	735	82	94	245
23	220	580	600	130	365	310	328	700	555	82	108	220
24	232	580			408	328	310	700	455	82	136	209
25	232	580			408	310	310	670	345	82	146	198
26	232	555			385	292	328	640	275	82	176	198
27	232	555		300	408	275	328	610	245	82	187	176
28	232	555	620		385	292	328	580	232	76	209	176
29	245	530		505	-------	292	328	530	198	76	187	156
30	260	580		480	-------	310	345	505	187	76	176	146
31	260	-------		455	-------	310	-------	480	-------	71	156	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	260	209	225	13,800
November	580	245	458	27,300
December	770	----------	657	40,400
January	640	----------	397	24,400
February	580	385	474	26,300
March	385	275	314	19,300
April	345	275	298	17,700
May	1,850	365	898	55,200
June	2,840	187	1,120	66,600
July	176	71	115	7,070
August	209	42	88.4	5,440
September	530	136	266	15,800
The year	2,840	42	441	319,000

ARKANSAS RIVER AT ARKANSAS CITY, KANS.

LOCATION.—Water-stage recorder in NW. ¼ sec. 25, T. 34 S., R. 3 E., half a mile west of Arkansas City and 5 miles above mouth of Walnut River.

DRAINAGE AREA.—44,700 square miles.

RECORDS AVAILABLE.—September, 1902, to July, 1906; September, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 11,700 second-feet May 11 (gage height, 13.87 feet); minimum, 100 second-feet Aug. 14 (gage height, 6.42 feet).

1902–1905; 1921–1930: Maximum stage, 25.46 feet June 11, 1923 (discharge not determined); minimum discharge, 12 second-feet in March and April, 1923 as result of division by power canal of Kansas Gas & Electric Co.

REMARKS.—Records good except those for Oct. 1 to Feb. 6, which are fair. Diversions for irrigation from Arkansas River cease about 250 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	340	850		1,130		778	568	695	1,130	680	225	620
2	372	710		1,130		732	560	680	1,300	650	209	503
3	386	665	940	1,050		718	560	1,050	1,300	612	197	433
4	405	635		1,010	700	710	575	2,240	1,130	598	182	386
5	405	628	938	986		725	582	1,480	1,050	568	168	454
6	398	620	956	962		740	575	1,660	954	545	160	538
7	372	605	1,090	946	1,560	748	552	2,070	930	538	185	770
8	366	658	1,090	568	1,740	748	517	5,340	1,130	524	147	1,010
9	372	642	1,090	308	1,740	748	496	9,300	1,340	496	141	890
10	366	680	1,130	426	1,480	732	461	9,820	2,690	475	135	1,560
11	386	755	1,130	524	1,340	702	454	10,400	2,760	447	126	3,380
12	405	834	1,130		1,340	672	433	8,530	2,420	433	117	2,830
13	412	930	1,130	400	1,260	672	433	6,480	2,180	392	115	1,790
14	392	946	1,130		1,220	672	433	4,150	1,880	366	108	1,430
15	386	922	1,090		1,180	672	461	3,900	2,300	334	120	1,390
16	386	922	1,090		1,130	635	461	2,690	2,540	334	115	2,070
17	405	930	1,130		1,090	598	447	2,180	2,070	314	120	1,660
18	419	994	1,050	375	1,090	590	426	2,020	1,700	301	135	1,130
19	419	1,010	612		1,090	598	419	1,880	1,520	282	154	906
20	447	1,050	447		1,050	598	510	1,790	1,480	265	193	810
21	447	1,090	605		930	650	635	1,840	1,480	250	213	794
22	440	1,050	740		986	650	440	1,840	1,390	301	260	732
23	461	1,010	818	330	1,050	620	379	1,880	1,260	288	314	650
24	454	1,000	882		970	628	360	1,700	2,020	310	524	590
25	433	978	930		930	598	360	1,560	1,090	314	503	531
26	461	994	946		890	582	360	1,430	962	294	930	468
27	461	1,010	1,000		850	560	379	1,300	890	308	1,430	426
28	447		1,050	400	810	560	433	1,220	826	288	1,090	392
29	475	960	1,050		-------	560	475	1,180	786	265	834	379
30	605		1,050		-------	568	620	1,180	740	245	762	360
31	866	-------	1,050		-------	575	-------	1,090	-------	235	702	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	866	340	432	26,600
November	1,090	605	867	51,600
December	1,130	447	971	59,700
January	1,130	----------	534	32,800
February	1,740	----------	1,070	59,400
March	778	560	656	40,300
April	635	360	479	28,500
May	10,400	680	3,050	188,000
June	2,760	740	1,510	89,800
July	680	235	395	24,300
August	1,430	108	342	21,000
September	3,380	360	996	59,300
The year	10,400	108	940	681,000

ARKANSAS RIVER AT VAN BUREN, ARK.

LOCATION.—Chain gage in sec. 24, T. 9 N., R. 32 W., at Van Buren, 1½ miles below Lee Creek. Zero of gage is 372.67 feet above mean sea level.

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

EXTREMES.—Maximum discharge during year, 164,000 second-feet May 10 (gage height, 22.6 feet); minimum, 2,380 second-feet Aug. 18–21 (gage height, 4.18 feet).

1927–1930: Maximum discharge, 315,000 second-feet May 16, 1929 (gage height, 29.0 feet); minimum, that of Aug. 18–21, 1930.

Maximum stage known, 35.0 feet during April, 1927.

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	3,520	10,100	4,500	4,970	13,200	25,800	4,200	4,650	15,400	19,800	2,620	3,400
2	3,400	10,600	4,200	5,290	13,700	19,200	4,060	5,630	12,600	14,800	2,570	3,170
3	3,280	12,000	4,200	6,400	19,200	15,400	4,060	76,300	10,600	11,000	2,530	2,800
4	3,280	8,850	4,060	6,900	35,300	13,700	3,920	77,500	9,650	9,650	2,500	2,800
5	3,170	7,500	4,060	6,650	83,500	12,000	3,780	76,300	10,100	8,500	2,470	2,570
6	3,170	6,400	3,920	6,200	119,000	10,100	3,920	79,900	9,250	8,500	2,470	2,500
7	3,070	6,400	3,920	6,000	113,000	8,500	3,920	79,900	9,650	7,500	2,470	2,470
8	3,170	7,800	3,920	6,200	96,000	8,150	3,780	81,100	16,000	8,850	2,500	2,440
9	3,070	7,200	4,060	9,250	82,300	7,500	3,520	90,800	11,000	8,500	2,500	2,440
10	3,070	7,500	3,920	12,000	70,400	7,200	3,400	148,000	9,250	6,650	2,470	2,470
11	3,280	7,200	4,060	9,650	59,400	6,650	3,400	157,000	7,800	5,630	2,440	2,470
12	3,650	7,800	4,060	10,100	49,000	6,400	3,280	135,000	8,500	5,130	2,440	5,130
13	9,250	8,500	4,060	34,400	38,100	6,000	3,280	152,000	14,800	4,500	2,730	19,800
14	37,200	7,200	4,060	54,000	30,000	5,800	3,280	152,000	49,000	4,060	2,620	20,500
15	53,000	6,650	4,650	62,700	25,000	5,290	3,170	154,000	66,000	3,780	2,440	19,200
16	41,000	6,400	17,200	59,400	22,000	5,290	3,170	138,000	68,200	3,520	2,420	15,400
17	29,100	6,400	40,000	47,000	18,500	5,130	3,170	138,000	110,000	3,400	2,400	18,500
18	16,000	6,900	50,000	25,800	15,400	4,970	3,070	130,000	124,000	3,280	2,380	38,100
19	10,100	7,800	40,000	13,200	12,600	5,130	3,780	138,000	110,000	3,070	2,380	36,200
20	6,900	6,900	29,100	12,000	11,600	7,200	4,810	141,000	85,900	2,880	2,380	21,200
21	5,800	6,400	17,200	11,000	10,100	7,500	5,290	109,000	72,700	2,880	2,380	13,200
22	5,290	6,400	10,100	8,850	10,100	7,800	4,810	73,900	62,700	2,800	2,420	9,250
23	4,810	5,800	7,800	6,400	9,650	7,500	4,350	52,000	52,000	2,730	2,470	8,150
24	4,350	5,290	6,650	6,000	11,600	6,900	4,200	50,000	33,500	2,620	2,530	6,650
25	3,920	5,130	5,460	5,800	20,500	6,200	4,200	53,000	21,200	2,620	2,530	5,630
26	3,780	4,970	5,630	6,200	45,000	5,800	4,810	57,200	17,200	2,620	2,730	5,290
27	3,650	4,810	5,460	6,900	41,000	5,290	4,500	48,000	19,800	2,530	2,670	5,460
28	3,920	4,650	5,460	8,850	31,700	5,130	4,650	38,100	29,100	2,530	2,800	5,130
29	3,920	4,810	5,130	10,600	-------	4,810	4,650	29,100	33,500	2,620	2,970	4,350
30	[a] 5,000	4,810	4,970	13,200	-------	4,350	4,500	24,200	24,200	2,670	2,800	3,650
31	7,500	-------	4,970	13,200	-------	4,200	-------	19,800	-------	2,670	3,170	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	53,000	3,070	9,470	582,000
November	12,000	4,650	6,970	415,000
December	50,000	3,920	10,200	627,000
January	62,700	4,970	16,000	984,000
February	119,000	9,650	39,500	2,190,000
March	25,800	4,200	8,090	497,000
April	5,290	3,070	3,960	236,000
May	157,000	4,650	87,400	5,370,000
June	124,000	7,800	37,500	2,230,000
July	19,800	2,530	5,560	342,000
August	3,170	2,380	2,550	157,000
September	38,100	2,440	9,680	576,000
The year	157,000	2,380	19,600	14,200,000

[a] Estimated.

ARKANSAS RIVER AT LITTLE ROCK, ARK.

LOCATION.—Staff gage in sec. 3, T. 1 N., R. 12 W., at Little Rock. Zero of gage is 223.39 feet above mean sea level.
DRAINAGE AREA.—158,000 square miles.
RECORDS AVAILABLE.—September, 1927, to September, 1930.
EXTREMES.—Maximum discharge during year, 221,000 second-feet May 12 (gage height, 21.3 feet); minimum, 2,740 second-feet Aug. 25, 26 (gage height, −1.4 feet).
1927–1930: Maximum discharge, 275,000 second-feet May 19, 1929 (gage height, 23.3 feet); minimum, that of Aug. 25, 26, 1930.
Maximum stages known, 34.6 feet in June, 1833, and 33.0 feet Apr. 20, 1927.
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	6,070	7,680	7,220	10,100	24,600	52,500	10,100	6,990	29,800	30,400	4,060	4,060
2	5,850	14,400	6,990	9,840	24,100	52,500	9,340	6,990	28,500	27,900	4,060	5,400
3	5,850	15,400	6,760	8,860	23,600	36,200	9,100	7,220	24,100	27,300	4,060	5,630
4	5,630	15,700	6,760	8,860	30,400	28,500	9,100	7,450	20,800	19,800	4,280	5,180
5	5,630	14,100	6,760	8,620	66,000	23,600	9,590	30,400	17,800	16,000	4,500	5,180
6	5,400	13,800	6,760	8,620	98,600	20,300	9,340	80,600	16,700	14,400	4,500	4,950
7	5,400	12,800	6,760	13,800	138,000	18,600	8,620	86,600	15,700	13,100	4,280	4,500
8	5,180	14,100	6,530	17,800	152,000	17,400	8,140	97,400	15,700	12,000	4,060	4,060
9	4,500	11,100	6,530	31,000	141,000	16,000	7,910	103,000	15,400	11,400	3,840	3,840
10	4,500	8,860	7,680	49,700	127,000	14,400	7,680	113,000	15,400	11,100	3,620	3,840
11	4,720	9,100	7,910	57,500	114,000	13,800	7,450	180,000	19,000	10,900	3,620	3,840
12	4,720	9,590	7,680	58,500	98,600	13,100	7,220	221,000	16,700	11,100	3,400	4,280
13	4,720	10,100	7,220	64,900	91,400	12,000	7,220	205,000	15,400	10,100	3,180	4,720
14	4,950	10,900	7,220	87,800	69,300	11,700	6,990	197,000	13,800	8,860	3,180	5,400
15	6,070	11,400	7,220	107,000	54,500	11,100	6,530	203,000	13,400	8,140	3,400	4,500
16	7,680	12,800	7,450	113,000	41,700	11,100	6,530	194,000	20,800	7,450	3,400	10,400
17	39,300	13,100	8,380	112,000	36,900	10,400	6,530	192,000	58,500	6,990	3,400	17,400
18	40,900	11,700	13,800	101,000	30,400	10,600	6,300	181,000	71,500	6,760	3,400	17,100
19	31,000	11,100	60,500	89,000	27,300	10,900	6,300	183,000	123,000	6,760	5,180	15,700
20	23,100	10,400	74,800	62,700	24,600	12,800	6,300	175,000	137,000	6,530	5,850	16,400
21	17,800	10,100	62,700	44,300	19,800	13,800	6,070	178,000	116,000	6,070	5,630	30,400
22	14,100	11,400	49,700	37,700	17,800	13,800	6,070	170,000	93,800	5,630	5,400	27,900
23	11,100	11,400	36,900	32,400	18,200	13,400	6,990	141,000	80,600	5,400	5,400	20,300
24	8,860	10,400	27,300	27,300	19,400	13,800	7,450	113,000	66,000	5,180	2,960	16,000
25	7,910	10,100	18,600	17,800	18,200	14,100	7,910	86,600	55,500	5,180	2,740	13,100
26	7,220	9,590	15,000	17,400	18,600	15,700	7,450	69,300	43,400	4,950	2,740	11,700
27	6,530	8,620	13,800	17,100	23,100	15,400	6,530	63,800	29,100	4,720	2,960	11,400
28	6,300	8,140	11,700	17,400	39,300	14,100	6,760	66,000	21,600	4,500	3,400	12,800
29	6,070	8,140	11,400	19,400	-------	12,500	6,990	55,500	19,000	4,500	3,400	10,400
30	5,850	7,680	10,900	21,600	-------	11,400	7,220	44,300	20,800	4,500	3,620	9,340
31	6,300	-------	10,400	23,600	-------	10,600	-------	36,900	-------	4,280	4,950	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	40,900	4,500	10,300	633,000
November	15,700	7,680	11,100	660,000
December	74,800	6,530	17,400	1,070,000
January	113,000	8,620	41,800	2,570,000
February	152,000	17,800	56,700	3,150,000
March	52,500	10,400	17,600	1,080,000
April	10,100	6,070	7,520	447,000
May	221,000	6,990	113,000	6,950,000
June	137,000	13,400	41,200	2,450,000
July	30,400	4,280	10,400	640,000
August	5,850	2,740	3,950	243,000
September	30,400	3,840	10,300	613,000
The year	221,000	2,740	28,300	20,500,000

WEST BEAVER CREEK NEAR VICTOR, COLO.

LOCATION.—In sec. 30, T. 16 S., R. 68 W., at Skaguay power station of Southern Colorado Power Co., 7 miles southeast of Victor and 2 miles above East Beaver Creek.

DRAINAGE AREA.—66 square miles, above reservoir outlet.

RECORDS AVAILABLE.—January, 1905, to September, 1930.

REMARKS.—Discharge is sum of flow through power house, measured by weir, and seepage below dam, corrected for gain or loss in storage in reservoir 3½ miles upstream. Water is diverted above station from three reservoirs, from which the town of Victor obtains its supply, and in the upper basin 2,900 acre-feet in 1929 and 2,790 acre-feet in 1930 was diverted through St. John tunnel from four reservoirs from which Colorado Springs obtains its municipal supply. Records furnished by Southern Colorado Power Co.

Monthly discharge, in second-feet, 1928–1930

Month	Mean	Run-off in acre-feet	Month	Mean	Run-off in acre-feet
1928–29			1929–30		
October	17.4	1,070	October	28.2	1,730
November	15.3	910	November	21.2	1,260
December	12.1	744	December	9.47	582
January	4.15	255	January	6.27	386
February	4.36	242	February	9.40	522
March	10.6	652	March	8.98	552
April	18.2	1,080	April	23.5	1,400
May	22.2	1,360	May	17.4	1,070
June	23.0	1,370	June	21.4	1,270
July	59.4	3,650	July	29.7	1,830
August	211	13,000	August	89.4	5,500
September	70.0	4,170	September	22.8	1,360
The year	39.7	28,500	The year	24.1	17,500

BOEHMER CREEK NEAR PIKES PEAK, COLO.

LOCATION.—In NW. ¼ sec. 32, T. 14 S., R. 68 W., 3½ miles south of Pikes Peak and above Little Beaver and Sackett Creeks. Altitude of station, 11,000 feet.

DRAINAGE AREA.—7.2 square miles, about 75 per cent of which is above timber line. It includes natural drainage of West Beaver Creek above intake of Strickler tunnel.

RECORDS AVAILABLE.—October, 1909, to September, 1930.

REMARKS.—Discharge measured by weir. Flow regulated by series of three reservoirs above station having an aggregate capacity of 1,400 acre-feet. Water diverted above station for use in Victor is included in table. Monthly discharge computed from records furnished by Colorado Springs Water Department.

Monthly discharge, in second-feet, 1928–29

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
1928–29						
October	16.6	1.23	6.83	0.949	1.09	420
November	1.58	.92	1.21	.168	0.187	72.0
December	.92	.92	.92	.128	.148	56.6
January	.92	.64	.91	.126	.145	56.0
February	.73	.64	.64	.089	.093	35.5
March	.73	.55	.71	.099	.114	43.6
April	1.13	.55	.57	.079	.088	33.9
May	7.80	1.13	2.57	.357	.412	158
June	7.80	4.47	6.38	.886	.988	380
July	100.0	2.90	12.3	1.71	1.97	756
August	70.0	19.0	46.9	6.51	7.50	2,880
September	18.5	12.8	15.2	2.11	2.35	904
The year	70.0	.55	7.84	1.09	15.08	5,800

Monthly discharge, in second-feet, of Boehmer Creek near Pikes Peak, Colo., 1929–30

1929–30						
October	9.05	3.81	6.72	.933	1.08	413
November	3.81	2.90	3.52	.488	.54	209
December	2.90	2.34	2.73	.379	.44	168
January	2.34	2.07	2.31	.321	.37	142
February	2.07	1.82	1.95	.271	.28	108
March	1.82	1.82	1.82	.253	.29	112
April	4.14	1.82	2.48	.344	.38	148
May	7.40	4.14	5.14	.714	.82	316
June	12.6	7.01	9.08	1.26	1.41	540
July	20.5	5.87	9.76	1.36	1.57	600
August	21.3	10.2	16.0	2.22	2.56	984
September	9.91	3.81	7.13	.990	1.10	424
The year	21.3	1.82	5.76	.800	10.8	4,160

LITTLE BEAVER CREEK NEAR PIKES PEAK, COLO.

LOCATION.—In NW. ¼ NW. ¼ sec. 32, T. 14 S., R. 68 W., just above mouth of creek and 3½ miles south of Pikes Peak. Little Beaver Creek enters Boehmer Creek from west 0.3 mile above reservoir No. 4. Altitude of station, 11,000 feet.

DRAINAGE AREA.—1.0 square mile, about 25 per cent of which is above timber line; remainder sparsely timbered.

RECORDS AVAILABLE.—October, 1909, to September, 1930.

REMARKS.—Discharge measured by weir. No diversions or regulation. Monthly discharge computed from records furnished by Colorado Springs Water Department.

Monthly discharge, in second-feet, 1928–1930

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
1928–29						
October	0.29	0.16	0.25	0.251	0.29	15.4
November	.16	.10	.15	.152	.17	9.0
December	.10	.10	.10	.100	.12	6.1
January	.05	.05	.05	.050	.06	3.1
February	.07	.05	.07	.069	.07	3.8
March	.06	.05	.06	.055	.06	3.7
April	.06	.06	.06	.060	.07	3.6
May	1.28	.10	.35	.351	.40	21.5
June	1.78	1.28	1.62	1.62	1.81	96.4
July	2.96	.82	1.76	1.76	2.03	108
August	10.3	1.65	4.61	4.61	5.32	283
September	2.64	1.28	1.85	1.85	2.06	110
The year	10.3	.05	.92	.92	12.46	664
1929–30						
October	1.28	.36	.91	.910	1.05	56.0
November	.36	.16	.28	.280	.31	16.7
December	.16	.12	.16	.160	.18	9.8
January	.10	.05	.09	.090	.10	5.5
February	.06	.06	.06	.060	.07	3.3
March	.06	.04	.05	.050	.06	3.1
April	.29	.06	.12	.120	.13	7.1
May	1.53	.29	.60	.600	.67	36.9
June	1.53	.54	1.09	1.09	1.22	64.9
July	1.65	.29	.85	.850	.97	52.3
August	1.60	.82	1.22	1.22	1.41	75.0
September	1.04	.63	.77	.770	.87	45.8
The year	1.65	.04	.52	.520	7.05	376

SACKETT CREEK NEAR PIKES PEAK, COLO.

LOCATION.—In SE. ¼ NW. ¼ sec. 32, T. 14 S., R. 68 W., just above mouth of creek and 4 miles southeast of Pikes Peak. Sackett Creek enters Boehmer Creek from north a short distance above reservoir No. 4. Altitude of station, 11,000 feet.

DRAINAGE AREA.—0.65 square mile, about 30 per cent of which is above timber line; remainder sparsely timbered.

RECORDS AVAILABLE.—October, 1909, to September, 1930.

REMARKS.—Discharge measured by weir. No diversions or regulation. Monthly discharge computed from records furnished by Colorado Springs Water Department.

Monthly discharge, in second-feet, 1928–1930

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
1928–29						
October	0.10	0.02	0.04	0.062	0.07	2.5
November	.02	.02	.02	.031	.03	1.2
December	.01	.01	.01	.015	.02	.6
March	.01	0	.01	.015	.02	.6
April	.02	.02	.02	.031	.03	1.2
May	1.53	.02	.20	.308	.36	12.3
June	1.53	.29	1.02	1.57	1.75	60.7
July	1.78	.25	.76	1.17	1.35	46.7
August	6.60	1.11	3.31	5.09	5.87	204
September	2.32	.65	1.33	2.05	2.29	79.1
The year	6.60	0	0.56	.862	11.79	409
1929–30						
October	.63	.10	.39	.600	.69	24.0
November	.06	.06	.06	.092	.10	3.6
December	.05	.05	.05	.077	.09	3.1
April	.10	.05	.07	.108	.12	4.2
May	1.04	.10	.31	.477	.55	19.1
June	1.04	.16	.58	.892	1.00	34.5
July	1.65	.10	.76	1.17	1.35	46.7
August	1.40	.45	.95	1.46	1.68	58.4
September	.45	.04	.29	.446	.50	17.3
The year	1.65	0	.29	.446	6.08	211

NOTE.—No flow during months for which no discharge is shown.

LION CREEK NEAR HALFWAY, COLO.

LOCATION.—In NE. ¼ sec. 15, T. 14 S., R. 68 W., at mouth of creek, half a mile southwest of Halfway. Lion Creek enters Ruxton Creek from west. Altitude of station, 9,250 feet.

DRAINAGE AREA.—2.0 square miles, about 30 per cent of which is above timber line; remainder sparsely timbered. It includes all area above The Crater apparently tributary to Sheep Creek.

RECORDS AVAILABLE.—April, 1908, to September, 1930.

REMARKS.—Flow determined by weir. No diversions or regulation. Monthly discharge computed from records furnished by Colorado Springs Water Department.

Monthly discharge, in second-feet, 1928–1930

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
1928–29						
October	1.45	1.17	1.31	0.655	0.7[illegible]	80.6
November	1.17	.97	1.05	.525	.5[illegible]	62.5
December	.87	.79	.82	.410	.4[illegible]	50.4
January	.79	.73	.76	.380	.4[illegible]	46.7
February	.73	.56	.64	.320	.3[illegible]	35.5
March	1.03	.51	.71	.355	.4[illegible]	43.7
April	1.03	.67	.85	.425	.4[illegible]	50.6
May	1.38	.79	.97	.485	.5[illegible]	59.6
June	1.30	.46	.71	.355	.4[illegible]	42.2
July	2.84	.51	.97	.485	.5[illegible]	59.6
August	5.31	1.45	3.95	1.98	2.2[illegible]	243
September	5.06	2.57	3.19	1.60	1.7[illegible]	190
The year	5.31	.46	1.33	.665	9.0[illegible]	964
1929–30						
October	2.75	1.83	2.18	1.09	1.2[illegible]	134
November	1.90	1.24	1.64	.820	.9[illegible]	97.6
December	1.38	1.03	1.18	.590	.6[illegible]	72.6
January	1.03	.61	.86	.430	.5[illegible]	52.9
February	.85	.61	.74	.370	.39	41.1
March	.91	.61	.70	.350	.40	43.0
April	1.24	.67	1.09	.545	.6[illegible]	64.9
May	1.60	.91	1.06	.530	.6[illegible]	65.2
June	1.17	.56	.78	.390	.44	46.4
July	1.63	.51	.86	.430	.50	52.9
August	2.23	1.10	1.80	.900	1.0[illegible]	111
September	2.10	1.60	1.84	.920	1.0[illegible]	109
The year	2.75	.51	1.23	.615	8.37	891

SHEEP CREEK NEAR HALFWAY, COLO.

LOCATION.—In SW. ¼ sec. 11, T. 14 S., R. 68 W., a quarter of a mile west of Halfway and a short distance above mouth. Sheep Creek enters Ruxton Creek from west a short distance above Halfway. Altitude of station, 9,100 feet.

DRAINAGE AREA.—0.73 square mile, practically all of which is below timber line, but sparsely timbered. It does not include any area above The Crater, as this is most probably tributary to Lion Creek.

RECORDS AVAILABLE.—April, 1908, to September, 1930.

REMARKS.—Flow determined by weir. No diversions or regulation. Monthly discharge computed from records furnished by Colorado Springs Water Department.

Monthly discharge, in second-feet, 1928–1930

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
1928–29						
October	0.41	0.27	0.32	0.438	0.50	19.7
November	.27	.20	.23	.315	.35	13.7
December	.23	.16	.19	.260	.30	11.7
January	.16	.13	.14	.192	.22	8.6
February	.13	.08	.09	.123	.13	5.0
March	.46	.08	.14	.192	.22	8.6
April	.51	.20	.31	.425	.47	18.4
May	.46	.20	.30	.411	.47	18.4
June	.36	.08	.15	.205	.23	8.9
July	.79	.08	.26	.356	.41	16.0
August	5.17	.67	2.88	3.95	4.55	177
September	1.60	.91	1.30	1.78	1.99	77.4
The year	5.17	.08	.53	.726	9.84	383
1929–30						
October	.91	.46	.66	.904	1.04	40.6
November	.51	.32	.41	.562	.63	24.4
December	.36	.13	.21	.288	.33	12.9
January	.18	.10	.13	.178	.11	8.0
February	.32	.10	.19	.260	.27	10.6
March	.32	.13	.22	.301	.35	13.5
April	.61	.23	.46	.630	.70	27.4
May	.67	.27	.41	.562	.65	25.2
June	.46	.23	.31	.425	.47	18.4
July	1.75	.20	.59	.808	.93	36.3
August	1.45	.91	1.16	1.59	1.83	71.3
September	.91	.56	.71	.973	1.09	42.2
The year	1.75	.10	.46	.630	8.50	331

SOUTH RUXTON CREEK AT HALFWAY, COLO.

LOCATION.—In SW. ¼ sec. 11, T. 14 S., R. 68 W., just above hydroelectric intake at Halfway and a short distance above mouth. South Ruxton Creek enters Ruxton Creek from south at Halfway. Altitude of station, 9,000 feet.

DRAINAGE AREA.—3.95 square miles, practically all of which is below timber line and heavily timbered.

RECORDS AVAILABLE.—June, 1906, to September, 1930.

REMARKS.—Flow determined by weirs. No diversions or regulation. Monthly discharge computed from records furnished by Colorado Springs Water Department.

Monthly discharge, in second-feet, 1928–1930

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
1928–29						
October	1.52	1.30	1.42	0.360	0.42	87.3
November	1.38	1.17	1.20	.304	.34	71.4
December	1.17	.97	1.05	.266	.31	64.6
January	.97	.91	.92	.233	.27	56.6
February	.91	.56	.73	.185	.19	40.5
March	.91	.67	.77	.195	.22	47.3
April	1.60	.85	1.28	.324	.36	76.2
May	4.10	1.45	2.15	.544	.63	132
June	3.70	1.83	2.79	.706	.79	166
July	3.60	1.52	2.46	.623	.72	151
August	11.61	4.10	8.32	2.11	2.43	512
September	5.17	3.31	4.37	1.11	1.24	260
The year	11.61	.56	2.30	.582	7.92	1,660
1929–30						
October	3.31	1.83	2.59	.656	.76	159
November	1.83	1.75	1.82	.461	.51	108
December	1.24	1.17	1.21	.306	.35	74.4
January	1.17	.79	.98	.248	.29	60.3
February	.73	.61	.66	.167	.17	36.7
March	1.30	.79	.95	.240	.28	58.4
April	1.60	.85	1.34	.339	.38	79.7
May	1.63	1.17	1.36	.344	.40	83.6
June	2.07	1.03	1.41	.357	.40	83.9
July	5.06	1.17	2.58	.653	.75	159
August	5.40	3.80	4.61	1.17	1.35	283
September	3.70	1.83	2.52	.638	.71	150
The year	5.40	.61	1.85	.468	6.35	1,340

CABIN CREEK NEAR HALFWAY, COLO.

LOCATION.—In SW. ¼ NW. ¼ sec. 11, T. 14 S., R. 68 W., just above hydroelectric intake, three-eighths mile north of Halfway. Cabin Creek enters Ruxton Creek half a mile below Halfway. Altitude of station, about 9,000 feet.

DRAINAGE AREA.—2.4 square miles, about 15 per cent of which is above timber line; remainder sparsely timbered.

RECORDS AVAILABLE.—October, 1906, to September, 1930.

REMARKS.—Flow determined by weirs. No diversions or regulation. Monthly discharge computed from records furnished by Colorado Springs Water Department.

Monthly discharge, in second-feet, 1928–1930

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
1928–29						
October	1.30	1.03	1.15	0.479	0.55	70.7
November	1.03	.79	1.13	.471	.53	67.2
December	.79	.56	.66	.275	.32	40.6
January	.61	.56	.56	.233	.27	34.4
February	.61	.36	.48	.200	.21	26.7
March	.56	.32	.40	.167	.19	24.6
April	1.03	.46	.79	.329	.37	47.0
May	3.12	.91	1.43	.596	.69	87.9
June	1.90	.61	1.20	.500	.56	71.4
July	3.31	.67	1.41	.588	.68	86.7
August	10.5	3.31	6.69	2.79	3.22	411
September	5.17	2.75	3.81	1.59	1.77	227
The year	10.5	.32	1.65	.688	9.36	1,200
1929–30						
October	2.67	1.52	2.02	.842	.97	124
November	1.45	1.03	1.26	.525	.59	75.0
December	1.10	.73	.88	.367	.42	54.1
January	.67	.51	.57	.238	.27	35.0
February	.73	.51	.60	.250	.26	33.3
March	.79	.46	.56	.233	.27	34.4
April	1.45	.61	1.09	.454	.51	64.9
May	1.38	.91	1.08	.450	.52	66.4
June	1.90	.79	1.21	.504	.56	72.0
July	3.90	.79	1.90	.792	.91	117
August	5.40	2.57	3.75	1.56	1.80	231
September	2.40	1.38	1.88	.783	.87	112
The year	5.40	.46	1.41	.588	7.95	1,020

SUTHERLAND CREEK NEAR MANITOU, COLO.

LOCATION.—In SW. ¼ sec. 9, T. 14 S., R. 67 W., 1½ miles southeast of Manitou. No large tributary between station and mouth, 1 mile below. Altitude of station, 6,600 feet.

DRAINAGE AREA.—4.4 square miles, practically all of which is below timber line.

RECORDS AVAILABLE.—January, 1918, to September, 1930.

REMARKS.—Flow determined by weir. No diversions or regulation. Monthly discharge computed from records furnished by Colorado Springs Water Department.

Monthly discharge, in second-feet, 1928–1930

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
1928–29						
October	0.73	0.61	0.67	0.152	0.18	41.2
November	.85	.56	.68	.155	.17	40.5
December	.85	.56	.69	.157	.18	42.4
January	.56	.56	.56	.127	.15	34.4
February	.56	.46	.51	.116	.12	28.3
March	.79	.46	.55	.125	.14	33.8
April	1.10	.61	.85	.193	.22	50.6
May	2.40	.79	1.23	.280	.32	75.6
June	1.98	.56	1.08	.245	.27	64.3
July	.85	.46	.55	.125	.14	33.9
August	11.6	1.30	5.84	1.33	1.53	359
September	2.40	1.38	1.82	.414	.46	108
The year	11.6	.46	1.26	.286	3.88	912
1929–30						
October	1.30	.97	1.10	.250	.29	67.6
November	1.03	.91	.97	.220	.25	57.7
December	.91	.73	.80	.182	.21	49.2
January	.73	.56	.65	.148	.17	40.0
February	.61	.61	.61	.139	.14	33.9
March	.79	.61	.64	.145	.17	39.4
April	1.10	.73	.96	.218	.24	57.1
May	2.23	.97	1.51	.343	.40	92.8
June	2.40	1.03	1.71	.389	.43	102
July	2.57	.67	1.27	.289	.33	78.1
August	4.10	1.30	2.83	.643	.74	174
September	2.07	1.03	1.42	.323	.36	84.5
The year	4.10	.56	1.21	.275	3.73	876

BEAR CREEK NEAR COLORADO SPRINGS, COLO.

LOCATION.—In NE. ¼ sec. 21, T. 14 S., R. 67 W., 3½ miles west of Springs and a short distance below Hunters Run. Altitude of 6,615 feet.

DRAINAGE AREA.—6.9 square miles, practically all of which is below tim

RECORDS AVAILABLE.—March, 1918, to September, 1930.

REMARKS.—Flow determined by weir. No diversions or regulation. discharge computed from records furnished by Colorado Springs Department.

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

Month	Maximum	Minimum	Mean	Per square mile	Run-o	
					Inches	A
1928–29						
October	1.52	1.17	1.2	0.180	0.21	
November	1.30	.61	.87	.126	.14	
December	.91	.56	.73	.105	.12	
January	.67	.51	.58	.084	.10	
February	.56	.16	.44	.064	.07	
March	1.10	.46	.74	.107	.12	
April	1.75	.97	1.21	.175	.20	
May	3.22	.97	1.51	.219	.25	
June	3.31	.91	1.88	.272	.30	
July	1.75	.91	1.14	.165	.19	
August	16.9	1.90	6.95	1.01	1.16	
September	4.52	2.49	3.27	.474	.53	
The year	16.9	.16	1.72	.249	3.39	1,
1929–30						
October	3.71	1.45	2.07	.300	.35	
November	1.52	.67	1.33	.193	.22	
December	1.30	.51	1.05	.152	.18	
January	.97	.51	.66	.096	.11	
February	.79	.23	.63	.091	.09	
March	.79	.51	.61	.088	.10	
April	1.38	.79	1.20	.174	.19	
May	3.60	1.03	2.06	.299	.34	
June	3.90	1.38	2.47	.358	.40	
July	8.83	1.03	2.11	.306	.35	
August	10.1	4.10	5.67	.822	.95	
September	4.10	2.23	3.06	.443	.49	
The year	10.1	.23	1.92	.278	3.77	1,390

PAWNEE RIVER NEAR LARNED, KANS.

LOCATION.—Water-stage recorder in sec. 33, T. 21 S., R. 18 W., at Moffet Dam, 11½ miles west of Larned.
DRAINAGE AREA.—About 2,300 square miles.
RECORDS AVAILABLE.—November, 1924, to September, 1930.
EXTREMES.—Maximum discharge during year, 1,140 second-feet June 11 (gage height, 12.20 feet); no flow several days in July, August, and September.
1924–1930: Maximum discharge, 2,910 second-feet May 13, 1929 (gage height, 21.70 feet); no flow for periods in 1926 and 1930.
REMARKS.—Records good except those for period affected by ice, Dec. 17 to Feb. 10, and for May and June, which are fair. Diversions for irrigation by pumping 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	6	8	15			8	7	16	12	6	1	0
2	5	9	14			8	8	17	21	5	1	0
3	7	10	14		8	8	8	17	7	6	2	0
4	7	10	14			8	8	19	6	5	2	0
5	7	11	14			8	8	25	6	5	2	0
6	7	10	14			9	9	25	5	5	2	0
7	7	10	15			9	9	32	5	4	2	176
8	7	12	15	7	12	9	9	25	5	4	2	70
9	7	12	10			9	9	25	34	2	1	25
10	5	14	12			8	10	23	572	0	2	31
11	7	17	12		14	8	11	17	1,060	0	3	43
12	7	20	13		10	7	10	15	248	0	3	76
13	7	19	12		10	7	9	11	31	0	3	36
14	7	19	12		10	7	10	11	20	0	3	20
15	6	18	12		9	7	10	12	15	0	3	9
16	6	16	12		9	7	9	17	12	0	3	4
17	7	15			9	7	10	17	13	0	3	0
18	8	12			9	6	7	15	12	0	2	0
19	11	12			10	7	10	15	11	0	3	0
20	12	12			9	7	10	17	10	1	3	0
21	9	12	9		9	7	10	17	9	1	3	0
22	7	10			9	7	9	17	9	1	3	0
23	7	12			9	7	8	17	9	1	3	0
24	5	12		6	13	8	9	16	9	1	3	0
25	5	15			9	7	7	13	9	1	3	0
26	5	16			9	7	9	12	8	1	3	0
27	7	16			9	7	8	10	8	1	3	0
28	7	17	8		8	7	8	10	7	1	3	0
29	7	17			-------	7	10	10	7	1	3	0
30	9	17			-------	7	12	10	7	1	0	0
31	8	-------			-------	7	-------	9	-------	1	0	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	12	5	7.06	434
November	20	8	13.7	815
December	15	----------	10.9	670
January	----------	----------	6.48	398
February	14	----------	9.79	544
March	9	6	7.48	460
April	12	7	9.03	537
May	32	9	16.5	1,010
June	1,060	5	72.9	4,340
July	6	0	1.74	107
August	3	0	2.35	144
September	176	0	16.3	970
The year	1,060	0	14.4	10,400

LITTLE ARKANSAS RIVER AT VALLEY CENTER, KANS.

LOCATION.—Chain gage in SW. ¼ sec. 1, T. 26 S., R. 1 W., 1 mile south of Valley Center and 14 miles above mouth.
DRAINAGE AREA.—1,340 square miles.
RECORDS AVAILABLE.—June, 1922, to September, 1930.
EXTREMES.—Maximum discharge during year, 2,240 second-feet May 8 (gage height, 8.80 feet); minimum, 19 second-feet Aug. 9 (gage height, 0.58 foot). 1922–1930: Maximum discharge, 10,500 second-feet June 10, 1923 (gage height, 18.02 feet); minimum, 4 second-feet Dec. 17, 1922.
REMARKS.—Records good except those for periods of ice effect, Jan. 10 to Feb. 10, and for Sept. 13–30, 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	47	78	68	72	50	61	54	86	800	41	29	35
2	50	68	68	72	64	58	54	86	287	41	28	32
3	50	64	64	68	64	54	54	78	134	38	28	35
4	47	61	68	68	72	54	54	72	105	38	27	32
5	47	58	72	68	93	54	54	64	93	38	27	47
6	47	58	72	64	114	58	50	97	86	38	38	50
7	50	58	72	64	114	58	50	485	78	38	23	44
8	47	61	75	61	114	54	50	2,240	78	35	20	41
9	47	61	75	61	114	58	47	1,910	114	35	19	38
10	50	72	75	55	97	58	47	1,800	114	35	24	50
11	54	82	75		89	58	47	1,800	105	35	24	238
12	54	75	75		86	54	47	1,110	105	32	25	238
13	54	75	75		78	54	47	575	114	32	25	238
14	50	72	75		75	54	47	410	105	32	25	156
15	50	72	75		72	54	47	254	89	32	44	86
				50								
16	50	75	75		72	54	50	195	75	30	124	58
17	50	75	72		68	54	82	195	68	30	50	41
18	47	89	72		64	54	58	181	68	30	41	35
19	50	105	68		64	58	58	195	61	30	124	35
20	54	97	68		64	58	54	374	61	29	64	35
21	58	82	72		64	58	50	446	61	29	392	30
22	54	75	68		64	54	54	338	54	30	168	28
23	72	68	64		64	54	54	168	54	30	75	26
24	82	75	61		61	54	58	134	50	32	54	25
25	64	72	61		61	54	58	105	47	47	58	25
				40								
26	61	72	64		61	54	58	97	47	44	47	23
27	58	75	64		68	54	61	89	47	35	41	22
28	58	75	68		64	54	64	86	44	32	41	23
29	58	72	68		------	54	72	86	44	30	41	23
30	72	72	68		------	54	86	93	41	29	41	25
31	75	------	68		------	54	------	428	------	28	38	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	82	47	55.1	3,390
November	105	58	73.1	4,350
December	75	61	69.8	4,290
January	72	------	51.4	3,160
February	114	50	76.2	4,230
March	61	54	55.4	3,410
April	86	47	55.5	3,300
May	2,240	64	461	28,300
June	800	41	108	6,430
July	47	28	34.0	2,090
August	392	19	58.2	3,580
September	238	22	60.5	3,600
The year	2,240	------	96.9	70,100

WALNUT RIVER AT WINFIELD, KANS.

LOCATION.—Chain gage in NE. ¼ sec. 33, T. 32 S., R. 4 E., 1 mile south of Winfield and 1 mile above Black Creek.
DRAINAGE AREA.—1,860 square miles.
RECORDS AVAILABLE.—November, 1921, to September, 1930.
EXTREMES.—Maximum discharge during year, 11,400 second-feet May 11 (gage height, 21.40 feet); minimum, 1 second-foot Sept. 1.
1921–1930: Maximum discharge, 94,000 second-feet Nov. 18, 1928 (gage height, 40.61 feet); no flow Nov. 11, 1928.
REMARKS.—Records good except those for period of ice effect, Jan. 14 to Feb. 7, and for July, August, and 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	96	316	41	49	52	130	93	158	306	74	26	2
2	70	261	71	49	63	93	67	172	221	60	26	17
3	66	183	80	71	56	93	67	204	144	50	25	10
4	58	90	68	106	70	82	74	204	144	50	24	6
5	36	112	63	34	56	93	74	238	204	55	13	16
6	18	85	68	71	250	74	46	361	144	41	12	20
7	16	70	71	98	300	82	93	980	144	46	11	28
8	58	66	34	71	342	82	74	4,440	74	67	11	50
9	52	66	88	71	306	93	74	5,800	361	50	10	41
10	58	31	71	71	255	105	74	9,300	462	46	8	4,500
11	58	61	93	68	204	93	74	9,620	361	46	17	4,680
12	58	70	68	14	204	93	55	3,530	238	46	158	1,180
13	18	61	71	63	204	93	50	2,430	204	23	11	462
14	36	70	68	68	204	93	67	2,040	158	38	20	272
15	52	70	28	58	144	93	117	930	221	34	55	1,340
16	52	85	80	63	117	82	82	550	188	41	10	642
17	58	43	24	58	144	82	82	462	324	34	16	642
18	52	96	6	45	144	93	105	400	204	31	11	289
19	52	90	49	31	117	82	67	361	144	34	22	204
20	28	123	49	27	144	93	93	324	144	41	25	144
21	36	140	27	41	105	93	93	289	130	28	12	74
22	52	112	4	52	117	93	82	272	82	46	27	130
23	52	90	17	83	117	105	82	272	738	46	93	74
24	58	47	17	68	117	93	82	272	2,260	31	74	50
25	43	96	3	17	93	93	82	221	1,450	17	67	60
26	52	90	68	36	93	82	82	204	255	31	41	74
27	16	90	56	36	93	82	82	204	158	34	38	41
28	21	85	54	52	144	60	93	172	130	29	21	41
29	52	96	9	52	-------	93	105	158	67	38	20	23
30	83	96	126	36	-------	60	188	324	67	19	4	38
31	137	-------	88	68	-------	67	-------	550	-------	24	19	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	137	16	51.4	3,160
November	316	31	99.7	5,930
December	126	3	53.5	3,290
January	106	14	55.7	3,420
February	342	52	152	8,440
March	130	60	88.5	5,440
April	188	46	83.3	4,960
May	9,620	158	1,470	90,400
June	2,260	67	324	19,300
July	74	17	40.3	2,480
August	158	4	29.9	1,840
September	4,680	2	505	30,000
The year	9,620	2	246	179,000

VERDIGRIS RIVER AT INDEPENDENCE, KANS.

LOCATION.—Chain gage in NE. ¼ sec. 31, T. 32 S., R. 16 E., 1 mile east of Independence and 2½ miles below Elk River.

DRAINAGE AREA.—2,800 square miles.

RECORDS AVAILABLE.—April to September, 1904; November, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 21,100 second-feet May 8 (gage height, 30.29 feet); minimum, 2 second-feet Sept. 4 (gage height, 1.07 feet).

1904, 1921–1930: Maximum discharge, 124,000 second-feet Oct. 3, 1927 (gage height, 46.04 feet); minimum, 0.1 second-foot Aug. 11, 1926.

REMARKS.—Records good except those for Jan. 8 to Feb. 7, which are affected by ice, and those for Sept. 15–30, 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	33	313	75	73		106	50	17,600	736	271	40	3
2	30	601	62	100		111	44	4,540	473	285	34	3
3	37	443	69	80	250	100	64	1,410	383	205	29	4
4	48	285	69	77		86	54	1,280	299	205	16	3
5	48	193	62	73		100	51	1,040	341	169	12	29
6	42	158	73	73	2,000	96	42	1,370	285	169	10	37
7	35	120	78	80	3,000	90	48	7,410	313	230	9	40
8	37	96	68		3,000	80	38	20,200	473	181	8	115
9	33	86	77	70	1,940	90	37	16,300	443	146	7	355
10	40	88	62		1,160	86	51	6,920	1,160	124	7	1,940
11	44	78	69		808	80	45	11,800	16,200	115	7	6,710
12	96	59	73		601	84	37	13,500	10,800	94	9	1,410
13	59	58	84	50	505	88	47	6,780	2,700	84	17	633
14	58	61	73		413	77	42	4,400	1,450	71	13	1,490
15	44	48	84		355	88	47	2,340	1,570	58	15	7,340
16	41	62	66		313	75	51	1,530	4,330	50	32	2,080
17	56	102	66		285	88	51	1,570	8,140	45	146	1,700
18	41	96	66		257	80	45	1,700	1,940	42	146	772
19	35	62	71		230	78	41	1,410	960	37	30	413
20	35	113	66		205	75	35	1,080	736	33	29	271
21	30	117	59	20	205	62	29	808	601	32	18	193
22	23	117	62		193	75	45	772	473	42	13	158
23	23	117	61		193	58	102	2,520	413	69	14	124
24	22	104	59		169	64	94	2,080	960	58	10	111
25	33	96	69		169	53	75	882	1,280	51	9	90
26	24	96	69		158	62	82	666	1,160	47	8	54
27	19	98	64		158	59	106	537	1,040	42	7	45
28	47	92	62	30	146	59	169	443	633	37	7	37
29	64	64	78		-------	69	146	700	633	29	5	42
30	98	73	66		-------	54	15,800	1,000	341	24	5	47
31	205	-------	59		-------	48	--------	2,040	--------	29	3	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	205	19	47.7	2,930
November	601	48	137	8,150
December	84	59	68.4	4,210
January	100	----------	45.0	2,770
February	3,000	----------	633	35,200
March	111	48	78.1	4,800
April	15,800	29	586	34,900
May	20,200	443	4,410	271,000
June	16,200	285	2,040	121,000
July	285	24	99.2	6,100
August	146	3	23.1	1,420
September	7,340	3	875	52,100
The year	20,200	3	753	545,000

NEOSHO RIVER NEAR IOLA, KANS.

LOCATION.—Water-stage recorder in NE. ¼ sec. 9, T. 25 S., R. 18 E., 3 miles southwest of Iola and half a mile below Elm Creek.

DRAINAGE AREA.—3,800 square miles.

RECORDS AVAILABLE.—August, 1895, to November, 1903; October, 1917, to September, 1930.

EXTREMES.—Maximum discharge during year, 17,200 second-feet May 11 (gage height, 18.90 feet); minimum, 39 second-feet Aug. 6 (gage height, 2.78 feet). 1895–1903, 1917–1930: Maximum discharge, 46,000 second-feet Sept. 13, 1926 (gage height, 33.2 feet); no flow on several days in September and October, 1897.

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	185	1,400	173	140		218	224	1,960	985	200	164	118
2	143	855	194	143	90	240	212	2,000	855		132	108
3	146	580	200	138		282	176	1,440	681	190	135	106
4	149	480	200	135	150	262	173	1,120	595		99	89
5	152	380	191	140	400	240	197	985	565		75	96
6	155	300	188	140	2,000	244	209	1,330	675		70	89
7	158	240	185	146	2,500	340	212	7,500	747		91	103
8	164	203	173	152	2,770	352	185	9,060	1,260	170	84	135
9	170	170	173	130	1,960	215	179	8,930	1,330		84	137
10	176	164	170	115	1,080	188	161	11,700	1,820		82	113
11	173	125	170		687	209	173	16,800	5,410		103	113
12	176	125	170		535	209	158	12,300	2,860		108	156
13	176	132	170	100	425	209	176	5,410	1,360	150	87	1,130
14	176	138	170		344	224	179	3,620	1,020		84	1,130
15	155	135	170		293	203	182	2,590	1,870		89	619
16	135	146	170		244	209	182	1,780	3,220		94	955
17	135	173	170		279	209	276	1,440	1,020		89	2,300
18	135	215	176	90	304	215	1,300	1,260	675	125	84	2,040
9	132	308	152		296	209	2,590	1,160	545		84	1,240
20	132	300	132		262	209	1,400	1,080	520		77	573
21	135	276	135		258	206	753	1,360	495		82	352
22	135	244	140		272	209	452	1,260	480		84	259
23	135	265	138	80	244	230	340	1,160	530	100	79	220
24	135	240	138		248	237	276	1,080	425		82	170
25	130	224	138		240	244	248	825	394		94	170
26	128	220	135		237	244	248	705	348	90	278	156
27	122	200	132		234	230	258	615	425	88	278	132
28	122	197	128	70	230	194	248	570	380	86	197	118
29	118	197	120		-------	194	262	920	320	62	173	111
30	122	191	120		-------	203	1,260	705	260	115	167	91
31	279	-------	128		-------	215	-------	783	-------	159	121	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	279	118	151	9,280
November	1,400	125	294	17,500
December	200	120	160	9,840
January	152	----------	102	6,270
February	2,770	----------	599	33,300
March	352	188	229	14,100
April	2,590	158	430	25,600
May	16,800	570	3,340	205,000
June	5,410	260	1,070	63,700
July	200	62	138	8,480
August	278	70	115	7,070
September	2,300	89	438	26,100
The year	16,800	62	589	426,000

NEOSHO RIVER NEAR PARSONS, KANS.

LOCATION.—Chain gage in NW. ¼ sec. 22, T. 31 S., R. 21 E., half a mile above St. Louis-San Francisco Railroad bridge and 10 miles east of Parsons.

DRAINAGE AREA.—4,860 square miles.

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

EXTREMES.—Maximum discharge during year, 20,100 second-feet June 12 (gage height, 20.92 feet); minimum, 17 second-feet Aug. 12 (gage height, 1.36 feet). 1921–1930: Maximum discharge, 48,100 second-feet Nov. 24, 1928 (gage height, 27.50 feet); minimum, 17 second-feet Dec. 3, 1931, and Aug. 12, 1930.

REMARKS.—Records good except those for Oct. 1 to Feb. 7, Sept. 16–30, 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	980	385	198	80	312	192	9,460	980	330	70	124
2	174	1,780	278	213	100	312	195	3,530	1,090	278	104	95
3	174	1,600	313	213	120	312	192	2,540	1,040	260	111	82
4	163	600	213	213	360	295	186	2,260	878	213	107	62
5	146	725	213	198	1,300	312	168	1,840	778	198	98	68
6	136	600	189	195	2,500	312	163	1,420	670	198	82	60
7	126	485	165	189	7,780	312	168	1,900	678	192	88	70
8	136	385	174		9,700	330	168	3,280	770	189	59	102
9	146	295	198	140	7,190	312	163	10,300	828	171	27	154
10	141	278	171		3,530	295	157	12,100	3,100	160	25	385
11	144	312	189		2,330	278	160	16,900	11,900	163	19	312
12	180	348	168		1,480	260	157	18,100	19,700	160	17	244
13	174	260	174	100	3,440	260	149	17,800	7,660	116	19	177
14	180	198	160		1,040	260	154	7,540	1,780	124	21	228
15	189	198	160		825	244	152	4,450	8,260	128	27	1,840
16	180	198	213		725	228	192	3,440	13,100	134	49	1,310
17	154	183	228		675	244	171	2,200	6,090	134	66	1,040
18	160	228	228	75	600	228	177	2,690	2,140	131	59	1,840
19	152	244	213		530	244	575	1,780	1,360	126	49	2,200
20	146	348	228		552	244	2,620	1,420	1,090	121	48	1,420
21	152	425	213		508	228	1,840	1,360	920	114	45	925
22	152	365			445	228	1,140	2,020	820	114	40	552
23	152	295	200	60	445	228	875	2,080	720	228	34	385
24	198	278			445	228	625	1,660	770	124	32	278
25	213	228			385	228	925	1,420	670	118	29	213
26	163	330	180		348	228	365	1,140	600	111	24	152
27	146	278	183		348	228	508	980	550	102	24	152
28	186	278	186		365	213	675	825	530	79	29	149
29	189	260	165	80	-------	198	445	775	530	45	260	136
30	213	278	174		-------	198	4,650	875	340	43	177	118
31	330	-------	174		-------	198	-------	980	-------	43	144	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	330	126	170	10,500
November	1,780	183	442	26,300
December	385	160	204	12,500
January	213	----------	113	6,950
February	9,700	80	1,720	95,500
March	330	198	258	15,900
April	4,650	149	610	36,300
May	18,100	775	4,490	276,000
June	19,700	348	3,010	179,000
July	330	43	147	9,040
August	260	17	64.0	3,940
September	2,200	60	496	29,500
The year	19,700	17	969	701,000

NEOSHO RIVER NEAR GROVE, OKLA.

LOCATION.—Chain gage in SE. ¼ sec. 27, T. 25 N., R. 23 E., 3 miles below Spring Branch and 3½ miles northwest of Grove.

RECORDS AVAILABLE.—February, 1925, to September, 1930. 59,700 WSP 1291

EXTREMES.—Maximum discharge during year, ~~54,100~~ second-feet June 16 (gage height, ~~18.5~~ feet); minimum, 370 second-feet Aug. 14 (gage height, 0.28 foot). 19.7

~~1925~~–1930: Maximum discharge, 133,000 second-feet Apr. 15, 1927 (gage height, 34.6 feet); minimum, 250 second-feet during September, 1925.

REMARKS.—Records good. Slight regulation at low stages by 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	810	1,320	1,040	810	1,530	3,270	960	49,000	2,600	2,350	600	535
2	635	1,220	775	1,000	1,750	3,690	1,220	28,600	2,600	2,230	568	600
3	775	1,320	775	960	2,350	2,860	1,080	10,900	2,110	1,640	600	448
4	810	2,470	880	1,040	19,900	2,470	960	7,260	2,350	1,420	535	505
5	810	2,470	740	1,080	30,100	2,110	960	5,660	2,470	1,750	705	448
6	775	1,750	810	1,000	21,300	2,860	960	5,130	2,600	1,220	635	505
7	920	1,640	740	1,040	24,700	2,350	960	5,480	1,870	1,420	535	448
8	845	1,320	845	1,320	27,900	2,730	1,220	6,840	1,870	1,080	535	1,250
9	740	1,190	740	880	25,800	2,230	845	7,690	1,750	1,190	568	2,730
10	705	1,320	775	1,080	16,700	1,990	810	15,500	1,990	1,130	535	9,050
11	845	1,040	810	1,530	10,900	1,750	920	27,500	9,550	1,220	448	14,400
12	3,840	1,220	845	2,110	7,910	1,990	960	31,600	26,100	1,320	535	6,640
13	3,690	1,000	705	6,640	6,640	1,420	845	25,800	27,200	1,190	448	4,140
14	2,470	1,040	920	9,300	5,660	1,530	1,000	24,000	19,300	775	448	2,730
15	1,870	1,040	845	7,910	4,790	1,530	1,320	16,400	16,200	810	535	12,300
16	1,420	920	845	5,480	4,140	1,640	1,220	8,590	53,600	920	845	20,200
17	1,190	1,190	960	4,140	4,140	1,420	2,860	8,360	42,700	880	705	11,200
18	1,320	920	1,420	2,990	3,550	1,530	2,350	23,600	26,100	635	775	5,850
19	1,000	1,080	1,040	2,600	3,270	1,870	1,750	20,900	10,400	670	845	5,130
20	1,040	1,190	960	2,730	3,270	1,750	1,640	11,500	6,240	845	960	5,300
21	920	1,130	960	2,470	2,860	1,750	2,470	7,260	5,130	635	1,320	4,300
22	960	845	1,040	2,110	3,410	1,750	3,550	5,480	4,300	670	845	2,730
23	1,040	920	1,130	2,110	2,470	1,320	2,600	9,050	3,550	880	810	2,860
24	810	960	960	1,990	2,730	1,640	3,270	8,590	3,130	1,130	670	2,230
25	880	1,130	880	1,870	3,270	1,040	2,990	5,850	3,270	1,220	635	1,990
26	705	960	920	1,750	5,480	1,220	2,600	4,790	2,990	1,130	475	1,640
27	740	880	960	1,750	4,790	1,080	2,470	4,300	2,860	810	600	1,750
28	960	1,080	960	1,750	4,140	1,130	4,460	3,410	2,110	960	475	1,320
29	1,320	880	845	1,530	-------	1,040	3,130	3,130	2,470	705	535	1,190
30	1,320	880	960	1,320	-------	1,320	18,900	2,730	2,600	705	535	1,080
31	1,080	-------	845	1,320	-------	920	-------	2,860	-------	670	475	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,840	635	1,200	73,800
November	2,470	845	1,210	72,000
December	1,420	705	901	55,400
January	9,300	810	2,440	150,000
February	30,100	1,530	9,120	506,000
March	3,690	920	1,850	114,000
April	18,900	810	2,380	142,000
May	49,000	2,730	12,500	769,000
June	53,600	1,750	9,730	579,000
July	2,350	635	1,100	67,600
August	1,320	448	637	39,200
September	20,200	448	4,180	249,000
The year	53,600	448	3,920	2,820,000

COTTONWOOD RIVER AT ELMDALE, KANS.

LOCATION.—Chain gage in NW. ¼ sec. 26, T. 19 S., R. 7 E., one-fourth mile above Middle Creek and 1 mile east of Elmdale.
DRAINAGE AREA.—1,040 square miles.
RECORDS AVAILABLE.—May, 1922, to September, 1930.
EXTREMES.—Maximum discharge during year, 7,330 second-feet May 7 (gage height, 24.85 feet); minimum, 5 second-feet July 15 (gage height, 3.38 feet). 1922–1930: Maximum discharge, 15,800 second-feet July 12, 1929 (gage height, 36.43 feet); minimum, 1 second-foot July 9, 1926.
REMARKS.—Records poor. Discharge interpolated Sept. 8, 9.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	722	183	136		85	58	769	433	48	21	50
2	21	430	151	160		85	48	608	400	45	21	31
3	28	207	166	169		85	39	433	345	45	21	31
4	16	166	123	151		85	44	463	27[illegible]	45	25	24
5	19	151	110	151	300	81	44	433	579	45	27	22
6	22	110	86	151		70	29	433	2,280	47	21	22
7	32	110	91			67	42	6,990	1,830	39	25	24
8	50	110	110		691	76	42	6,160	69[illegible]	35	13	500
9	34	110	136		521	76	42	2,980	433	33	16	3,000
10	52	151	136		463	85	39	1,290	400	23	16	2,380
11	62	183	136	80	400	76	29	2,190	400	23	17	845
12	73	236	151		325	58	29	1,470	400	19	16	521
13	77	236	151		271	67	42	1,100	365	19	14	365
14	64	218	136		178	58	52	820	328	6	15	325
15	103	193	136		188	58	56	743	25[illegible]	5	19	2,580
16	96	229	110		154	58	1,290	717	20[illegible]	12	17	1,360
17	100	498	110		154	85	2,550	743	18[illegible]	33	16	433
18	93	554	110	60	144	76	920	743	160	30	17	160
19	86	466	98		124	67	608	795	173	27	19	81
20	86	410	86		138	54	463	795	144	27	21	44
21	105	334	86		138	40	365	795	9[illegible]	27	743	51
22	151	200	68		138	37	280	608	81	27	870	58
23	110	166	91	50	116	37	103	492	8[illegible]	30	167	51
24	86	236	86		98	44	116	463	9[illegible]	43	74	48
25	82	200	86		124	67	83	463	81	52	35	37
26	68	200	86		98	44	116	433	7[illegible]	77	51	31
27	86	183	86		870	54	154	400	67	68	20	28
28	98	166	98		691	44	215	382	63	60	23	23
29	166	166	98	70	-------	37	280	795	5[illegible]	60	27	20
30	353	183	110		-------	44	769	579	4[illegible]	42	27	20
31	966	-------	123		-------	40	-------	463	-------	23	103	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	966	16	110	6,760
November	722	110	251	14,900
December	183	68	114	7,010
January	169	----------	84.1	5,170
February	870	----------	290	16,100
March	85	37	62.6	3,850
April	2,550	29	298	17,700
May	6,990	382	1,180	72,600
June	2,280	48	368	21,900
July	77	5	36.0	2,210
August	870	13	81.2	4,990
September	3,000	20	439	26,100
The year	6,990	5	275	199,000

SPRING RIVER NEAR WACO, MO.

LOCATION.—Chain gage on line between SE. ¼ sec. 7 and NE. ¼ sec. 18, T. 29 N., R. 33 W., at highway bridge 1½ miles east of Waco. Zero of gage is 835.25 feet above mean sea level.

DRAINAGE AREA.—1,160 square miles.

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

EXTREMES.—Maximum discharge during year, 9,350 second-feet June 16 (gage height, 12.96 feet); minimum, 36 second-feet Sept. 1.

1924–1930: Maximum discharge, 57,400 second-feet Aug. 17, 1927 (gage height, 28.6 feet); minimum, 22 second-feet Sept. 8, 1925 (gage height, 0.90 foot).

REMARKS.—Records fair except those for periods of ice effect, Dec. 19–20, Jan. 7 to Feb. 3, which are poor. Flow during low stages slightly regulated by gristmills.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	171	86	82	174	370	123	3,440	232	350	94	86
2	86	120	74	82	202	330	118	2,710	217	264	96	80
3	96	138	80	88	232	296	115	810	202	248	106	86
4	88	88	92	120	6,450	264	108	620	202	248	52	65
5	98	168	110	94	5,650	248	103	552	217	232	123	60
6	96	138	90	59	4,160	248	108	430	232	217	71	70
7	96	115	101	96	4,970	620	98	1,190	199	196	60	62
8	125	123	98	96	3,890	330	115	810	185	177	65	133
9	101	88	45	120	2,710	248	94	490	188	185	73	1,450
10	84	103	133	120	1,520	232	98	450	248	180	73	620
11	90	96	96	96	1,080	217	96	1,800	2,710	180	46	490
12	113	125	108	76	910	232	92	1,250	2,010	188	92	296
13	163	120	63	76	810	160	96	910	1,450	152	60	248
14	143	152	98	96	710	185	84	760	1,310	130	73	194
15	123	125	86	410	620	166	103	575	5,250	154	56	248
16	149	92	50	370	552	160	430	510	7,050	152	88	710
17	130	128	98	296	510	157	313	620	3,350	138	296	470
18	110	70	76	264	470	217	168	2,230	1,870	113	196	330
19	96	120	60	264	430	264	182	1,660	965	143	490	232
20	96	98	60	264	410	199	152	860	760	133	530	194
21	59	125	46	232	370	149	138	552	620	128	313	168
22	130	146	46	232	350	177	128	450	552	133	177	152
23	113	115	46	232	370	157	125	530	490	217	152	143
24	101	96	46	232	390	160	108	665	450	217	123	143
25	92	52	60	232	510	163	103	450	410	196	66	149
26	76	108	60	202	530	136	94	390	490	160	118	113
27	74	92	76	202	490	138	191	330	575	143	96	106
28	68	138	76	202	430	138	171	296	370	92	76	103
29	133	60	60	202	------	133	154	280	330	143	84	57
30	141	94	46	202	------	120	5,250	248	313	118	80	103
31	149	------	60	202	------	123	------	248	------	106	73	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	163	68	107	0.092	0.11
November	171	52	113	.097	.11
December	133	45	75.0	.065	.07
January	410	59	179	.154	.18
February	6,450	174	1,420	1.22	1.27
March	620	120	217	.187	.22
April	5,250	84	309	.266	.30
May	3,440	248	875	.754	.87
June	7,050	185	1,110	.957	1.07
July	350	92	175	.151	.17
August	530	46	132	.114	.13
September	1,450	57	245	.211	.24
The year	7,050	45	405	.349	4.74

SHOAL CREEK NEAR JOPLIN, MO.

LOCATION.—Indicating float gage in S. ½ sec. 28, T. 27 N., R. 33 W., at Grand Falls hydroelectric plant of Empire District Electric Co., 4 miles south of Joplin.

DRAINAGE AREA.—458 square miles.

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

EXTREMES.—Maximum discharge during year, 15,200 second-feet Sept. 10 (gage height, 13.92 feet); minimum, 14 second-feet Aug. 26, while plant was shut down.

1924–1930: Maximum discharge, that of Sept. 10, 1930; minimum, 13 second-feet for many short periods during 1924 and 1925 when plant was shut down.

REMARKS.—Records good for periods during which discharge was below 7,000 second-feet and fair for those above that limit. Flow regulated by Grand Falls hydroelectric plant.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	189	160	139	137	254	313	182	744	450	318	126	96
2	164	176	139	145	248	314	193	540	306	333	137	93
3	164	164	134	153	446	360	193	468	318	288	125	94
4	164	127	104	135	785	336	197	448	253	293	22	113
5	164	188	141	158	200	336	208	390	312	272	109	112
6	164	159	118	133	1,210	327	159	366	295	259	110	93
7	141	155	167	149	1,080	307	197	487	270	263	127	98
8	139	152	113	113	1,030	274	173	427	271	241	130	147
9	154	164	119	164	875	310	174	400	243	227	130	1,960
10	140	179	140	160	798	288	149	829	299	263	123	7,780
11	186	216	128	160	727	285	154	942	349	222	122	2,430
12	233	155	88	176	677	268	185	821	310	233	119	1,170
13	393	125	133	286	624	269	180	691	297	166	118	731
14	250	163	135	444	572	252	250	619	324	195	107	690
15	258	151	159	605	524	269	244	537	1,950	206	127	4,660
16	203	159	134	492	468	267	246	493	2,360	194	147	3,690
17	214	170	147	382	466	226	258	537	1,250	198	141	1,500
18	185	160	127	367	443	343	219	751	968	170	159	1,130
19	166	154	222	403	427	230	209	814	802	202	133	935
20	181	138	92	403	411	242	219	575	691	196	143	820
21	168	134	162	427	396	218	227	502	610	173	121	716
22	158	113	93	304	396	203	181	466	557	178	126	643
23	154	131	134	289	388	149	253	673	495	221	125	598
24	168	141	146	321	359	236	209	696	466	470	124	524
25	172	134	92	276	392	234	230	550	429	226	106	481
26	159	141	178	271	389	177	231	489	405	189	128	423
27	162	121	189	263	404	212	264	466	343	166	132	418
28	199	145	137	239	367	218	212	435	379	171	108	377
29	191	128	92	264	-------	181	227	396	344	158	107	393
30	193	143	134	241	-------	208	1,240	378	347	153	113	324
31	202	-------	114	270	-------	217	-------	327	-------	131	96	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	393	139	186	0.406	0.47
November	216	113	152	.332	.37
December	222	88	134	.293	.34
January	605	113	269	.587	.68
February	1,210	200	548	1.20	1.25
March	360	149	260	.568	.65
April	1,240	149	242	.528	.59
May	942	327	557	1.22	1.41
June	2,360	243	556	1.21	1.35
July	470	131	225	.491	.57
August	147	22	121	.264	.30
September	7,780	93	1,110	2.42	2.70
The year	7,780	22	360	.786	10.68

YAZOO RIVER BASIN

TALLAHATCHIE RIVER NEAR SARDIS, MISS.

LOCATION.—Chain gage at highway bridge in T. 8 S., R. 7 W., 3 miles above Illinois Central Railroad bridge and 5 miles south of Sardis.

DRAINAGE AREA.—1,680 square miles.

RECORDS AVAILABLE.—July, 1928, to September, 1930. At Batesville, 5 miles downstream, comparable record from June, 1906, to December, 1912.

EXTREMES.—Maximum discharge during year, 11,900 second-feet Mar. 10 (gage height, 21.31 feet); minimum, 255 second-feet Aug. 13–15 (gage height, 2.21 feet).

1928–1930: Maximum and minimum discharges, those of 1930.

REMARKS.—Records fair. Part of field data furnished by and computations made in conjunction with Vicksburg office of United States Army Engineers.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	440	2,310	1,300	3,560	4,100	2,310	1,400	600	1,170	380	318	380
2	440	2,920	1,260	4,880	3,920	2,420	1,300	600	1,040	410	305	330
3	440	2,640	1,220	4,700	3,260	2,480	1,300	600	880	410	292	355
4	440	2,860	1,260	3,860	4,640	2,420	1,260	565	775	380	280	355
5	565	3,260	1,300	2,800	4,040	2,260	1,260	565	740	380	305	330
6	670	4,400	1,400	2,640	3,740	3,800	1,350	600	705	380	330	305
7	880	5,060	1,580	3,080	4,340	7,350	1,400	565	670	380	318	292
8	960	4,700	1,620	7,140	7,140	9,100	1,260	810	670	355	292	280
9	1,000	3,980	1,580	7,840	7,630	10,600	1,120	1,960	635	380	280	280
10	810	2,800	1,620	7,350	6,300	11,600	1,040	2,700	600	380	280	355
11	600	2,160	1,660	8,190	4,640	10,600	960	1,760	565	355	268	635
12	530	1,760	1,860	9,030	3,560	9,240	920	1,350	565	410	268	635
13	500	3,380	1,960	8,470	2,800	7,280	880	2,160	530	380	255	705
14	470	3,020	1,710	7,560	2,260	6,160	880	2,640	530	380	255	880
15	440	2,800	1,580	6,580	2,160	5,390	845	2,100	530	380	255	1,040
16	410	3,500	1,220	4,940	2,160	4,580	845	2,060	500	355	268	1,120
17	410	5,320	1,260	4,760	2,640	3,620	845	2,970	500	355	292	920
18	380	6,510	1,440	6,370	3,080	3,200	845	4,820	470	330	470	635
19	380	5,810	1,300	7,490	3,260	3,800	845	7,490	470	330	670	440
20	410	4,820	1,300	6,790	2,920	3,260	845	7,280	470	330	600	410
21	440	3,620	1,400	5,600	2,360	2,970	880	7,070	470	330	565	410
22	470	2,970	1,580	4,520	2,000	3,380	810	8,190	440	318	470	530
23	470	2,920	1,620	3,620	1,800	4,220	775	9,380	440	330	355	810
24	440	1,800	1,620	2,920	1,660	4,220	705	8,610	440	330	330	1,080
25	470	1,440	1,300	3,080	1,580	3,620	670	6,720	440	355	318	1,040
26	470	1,480	1,220	3,260	1,800	2,860	670	4,940	410	355	305	775
27	440	1,300	1,350	3,560	2,160	2,200	635	3,500	410	380	292	635
28	440	1,300	2,310	3,140	2,310	2,060	635	2,260	410	410	292	600
29	470	1,350	2,310	2,800	-------	1,960	635	1,530	410	470	280	500
30	500	1,300	2,060	2,700	-------	1,760	600	1,350	380	410	280	440
31	1,400	-------	2,420	3,320	-------	1,580	-------	1,120	-------	380	305	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,400	380	554	0.330	0.38
November	6,510	1,300	3,120	1.86	2.08
December	2,420	1,220	1,570	.935	1.08
January	9,030	2,460	5,050	3.01	3.47
February	7,630	1,580	3,370	2.01	2.09
March	11,600	1,580	4,590	2.73	3.15
April	1,400	600	947	.564	.63
May	9,380	565	3,190	1.90	2.19
June	1,170	380	576	.343	.38
July	470	318	371	.221	.25
August	670	255	335	.199	.23
September	1,120	280	583	.347	.39
The year	11,600	255	2,020	1.20	16.32

YOCONA RIVER NEAR ENID, MISS.

LOCATION.—Chain gage at highway bridge in T. 11 S., R. 7 W., 2 miles above Illinois Central Railroad bridge and 2½ miles northeast of Enid.

DRAINAGE AREA.—560 square miles.

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

EXTREMES.—Maximum discharge during year, 10,100 second-feet May 20 (gage height, 18.22 feet); minimum, 35 second-feet Oct. 3 (gage height, 0.78 foot). 1928–1930: Maximum and minimum discharges, those of 1930.

REMARKS.—Records fair. Part of field data furnished by and computations made in conjunction with Vicksburg office of United States Army Engineers.

Daily and monthly discharge, in second-feet, 1928–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	1,010	204	688	640	1,140	383	177	178	70	66	66
2	39	4,560	497	1,220	592	960	640	168	158	70	66	57
3	36	3,300	383	1,160	835	688	1,140	168	145	70	66	48
4	42	985	284	835	5,220	544	1,060	160	139	70	62	66
5	177	428	295	592	4,740	497	736	152	133	66	66	48
6	144	242	273	497	2,600	1,160	568	152	133	66	62	40
7	102	177	1,080	785	1,460	4,320	497	242	127	66	62	40
8	78	152	1,200	4,620	835	4,440	428	242	122	66	62	39
9	64	136	785	3,540	664	3,000	361	2,600	110	70	57	75
10	58	129	568	1,460	640	1,420	339	5,500	110	70	57	315
11	53	213	405	935	568	2,180	339	1,880	105	66	57	376
12	51	835	860	736	544	1,320	317	1,020	105	70	57	208
13	48	4,080	405	885	592	985	317	2,500	105	70	56	241
14	48	3,300	295	4,560	568	835	295	4,500	100	66	55	139
15	45	1,390	339	5,780	451	688	284	1,560	95	66	75	90
16	43	1,220	252	5,300	736	616	273	1,560	95	66	85	75
17	42	810	262	2,440	688	568	451	2,660	95	62	95	62
18	42	544	785	1,110	520	835	474	7,120	90	62	464	62
19	41	474	736	664	474	3,780	317	9,440	90	62	2,380	62
20	53	405	544	712	428	2,240	252	9,640	85	62	562	95
21	213	284	383	1,880	405	1,200	222	7,780	85	66	116	208
22	84	262	317	1,620	592	885	222	3,240	85	70	75	110
23	56	273	317	985	910	688	204	1,020	80	133	54	85
24	50	262	339	712	712	664	195	701	80	105	52	80
25	47	284	428	616	640	935	186	376	75	133	46	100
26	50	339	544	664	935	810	177	296	75	127	41	105
27	54	405	736	2,600	835	616	177	241	70	90	38	90
28	75	361	4,020	3,060	1,360	520	177	224	70	80	39	75
29	78	295	2,280	1,500	------	474	177	277	70	75	36	70
30	76	213	1,360	1,110	------	451	177	335	70	66	52	66
31	213	------	985	785	------	405	------	224	------	66	66	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	213	36	72.5	0.129	0.15
November	4,560	129	912	1.63	1.82
December	4,020	204	715	1.28	1.48
January	5,780	497	1,740	3.11	3.58
February	5,220	405	1,080	1.93	2.01
March	4,440	405	1,290	2.30	2.65
April	1,140	177	380	.679	.76
May	9,640	152	2,130	3.80	4.38
June	178	70	103	.184	.21
July	133	62	75.7	.135	.16
August	2,380	36	165	.295	.34
September	376	39	106	.189	.21
The year	9,640	36	732	1.31	17.75

COLDWATER RIVER NEAR COLDWATER, MISS.

LOCATION.—Chain gage at highway bridge in T. 4 S., R. 7 W., 1¼ miles northwest of Coldwater and 1½ miles below Beartail Creek.
DRAINAGE AREA.—617 square miles.
RECORDS AVAILABLE.—July, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 41,800 second-feet Jan. 9 (gage height, 18.86 feet); minimum, 71 second-feet Oct. 1–3.
1928–1930: Maximum discharge, that of Jan. 9, 1930; minimum discharge, 69 second-feet Sept. 30, 1929; minimum gage height, 2.36 feet Aug. 21, 1929.
REMARKS.—Records fair. Field data furnished by and computations made in conjunction with Vicksburg office of United States Army Engineers.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	3,230	182	475	738	240	105	110	144	102	91	89
2	71	3,960	225	341	279	213	108	112	130	101	93	98
3	71	4,110	189	960	248	179	107	110	130	102	94	95
4	97	1,900	172	740	1,920	128	128	112	126	102	95	89
5	153	1,580	182	467	9,090	131	120	118	126	101	98	85
6	185	917	157	258	2,870	246	114	118	124	101	96	86
7	150	447	369	431	2,020	1,560	108	122	126	102	95	85
8	120	181	398	13,600	1,500	2,020	107	135	124	101	107	88
9	96	142	1,000	41,800	995	2,320	107	479	118	103	107	84
10	93	125	693	25,900	579	1,400	108	512	116	102	101	89
11	90	116	331	11,500	330	1,300	96	806	118	101	96	305
12	85	134	263	1,100	207	1,240	102	1,360	116	103	89	833
13	86	400	190	2,380	836	856	112	1,160	116	104	89	355
14	87	720	163	1,850	888	558	105	4,330	118	105	89	271
15	85	836	144	1,780	1,090	281	108	4,440	116	103	88	174
16	87	1,010	127	1,680	886	210	109	3,230	116	102	97	116
17	83	875	119	920	666	169	116	2,680	114	101	98	94
18	84	554	259	639	440	218	186	8,800	112	99	104	87
19	85	249	341	284	348	596	303	13,600	112	97	122	85
20	83	213	405	243	237	846	162	7,650	112	97	153	86
21	92	170	288	208	204	522	124	4,220	112	96	148	81
22	90	134	249	474	165	394	120	798	114	99	95	83
23	75	187	245	1,190	198	241	124	726	112	105	95	82
24	86	160	298	712	241	166	124	624	112	121	88	83
25	88	135	318	582	175	295	109	232	110	134	85	84
26	85	128	291	471	323	280	112	180	108	163	86	84
27	87	137	314	892	686	207	114	159	106	136	87	86
28	91	145	1,260	1,140	323	167	112	148	103	116	87	85
29	94	141	2,100	1,080	-------	124	114	147	104	106	86	81
30	144	142	2,440	1,450	-------	124	112	146	103	94	84	78
31	210	-------	1,560	982	-------	119	-------	147	-------	92	91	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	210	71	100	0.162	0.19
November	4,110	116	773	1.25	1.40
December	2,440	119	493	.799	.92
January	41,800	208	3,760	6.09	7.02
February	9,090	165	1,020	1.65	1.72
March	2,320	119	560	.908	1.05
April	303	96	123	.199	.22
May	13,600	110	1,860	3.01	3.47
June	144	103	117	.190	.21
July	163	92	106	.172	.20
August	107	84	97.9	.159	.18
September	833	78	137	.222	.25
The year	41,800	71	765	1.24	16.83

YALOBUSHA RIVER AT GRENADA, MISS.

LOCATION.—Chain gage in T. 22 N., R. 5 E., at highway bridge on U. S. route 51 in Grenada, 1 mile below Batupan River.

DRAINAGE AREA.—1,550 square miles.

RECORDS AVAILABLE.—June to November, 1906; July, 1908, to March, 1912; July, 1928, to September, 1930.

EXTREMES.—Maximum discharge during year, 33,800 second-feet May 20 (gage height, 27.34 feet); minimum discharge, 35 second-feet Aug. 12, 13; minimum gage height, 2.29 feet Oct. 18.

1906, 1908–1912, 1928–1930: Maximum discharge, that of May 20, 1930; minimum discharge, that of Aug. 12, 13, 1930.

REMARKS.—Records fair. Part of field data furnished by and computations made in conjunction with Vicksburg office of United States Army Engineers.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	750	904	2,250	3,060	2,310	880	272	598	78	66	55
2	70	1,860	976	1,650	2,280	2,250	2,220	256	544	87	57	52
3	68	1,510	1,050	2,070	1,680	1,980	4,570	240	422	82	54	53
4	70	1,000	1,130	2,100	3,720	1,510	4,920	240	367	80	48	46
5	107	526	1,030	1,950	4,410	1,130	4,730	224	320	75	43	44
6	112	320	976	1,540	4,410	904	4,450	224	320	75	43	40
7	110	240	1,770	1,400	4,490	1,080	4,170	240	288	74	40	42
8	99	192	2,310	1,570	4,530	1,770	3,580	422	256	71	39	44
9	94	168	2,540	1,770	4,490	2,040	2,960	3,440	240	68	43	59
10	84	160	2,380	1,680	3,860	2,130	1,800	8,620	240	66	42	176
11	75	160	1,770	1,430	2,990	2,600	1,100	7,570	224	63	41	422
12	66	224	1,180	1,180	1,770	2,700	790	6,730	208	62	35	652
13	60	508	792	1,260	1,260	2,790	710	8,260	200	66	35	526
14	57	1,800	730	4,010	1,340	2,760	670	9,060	184	68	36	320
15	57	2,250	652	5,270	1,320	1,980	598	7,420	168	64	42	224
16	55	2,380	508	5,070	1,210	1,480	526	7,270	160	63	224	160
17	52	2,220	439	5,070	1,130	1,230	508	9,280	160	60	82	112
18	51	2,040	710	4,970	1,030	1,230	508	15,300	152	70	99	104
19	52	1,740	952	4,820	904	3,340	473	30,000	144	96	256	74
20	52	1,160	1,210	4,170	814	3,520	422	33,800	136	96	814	68
21	53	730	1,100	3,240	750	3,480	388	30,000	120	102	792	86
22	52	580	836	2,890	770	3,240	354	19,100	112	160	371	94
23	53	544	670	2,730	1,230	2,920	337	12,200	104	112	176	184
24	54	526	634	2,600	1,290	2,470	304	8,440	102	98	110	136
25	58	508	770	1,980	1,290	2,630	304	6,370	99	128	84	99
26	62	792	904	1,480	1,650	2,500	288	5,120	94	120	60	84
27	67	976	1,130	2,100	2,020	2,040	272	4,050	94	106	54	81
28	74	1,130	2,410	3,380	2,380	1,540	256	2,730	93	96	45	74
29	87	1,030	2,920	3,580	-------	1,320	256	1,460	82	81	37	66
30	112	858	2,890	3,660	-------	1,030	272	1,370	77	71	41	57
31	176	-------	2,730	3,480	-------	670	-------	792	-------	63	48	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	176	51	74.5	0.048	0.06
November	2,380	160	963	.621	.69
December	2,920	439	1,320	.852	.98
January	5,270	1,180	2,790	1.80	2.08
February	4,530	750	2,220	1.43	1.49
March	3,520	670	2,080	1.34	1.54
April	4,920	256	1,450	.935	1.04
May	33,800	224	7,760	5.01	5.78
June	598	77	209	.135	.15
July	160	60	83.9	.054	.06
August	814	35	128	.083	.10
September	652	40	141	.091	.10
The year	33,800	35	1,610	1.04	14.12

RED RIVER BASIN

RED RIVER NEAR DENISON, TEX.

LOCATION.—Chain gage on Denison-Colbert toll bridge, half a mile below Missouri-Kansas-Texas Railroad bridge and 4½ miles northeast of Denison, Grayson County.

DRAINAGE AREA.—39,400 square miles.

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

EXTREMES.—Maximum discharge during year, 46,400 second-feet May 18 (gage height, 10.50 feet); minimum, 417 second-feet Sept. 3, 4.

1923–1930: Maximum discharge, 132,000 second-feet Oct. 17, 1923 (gage height, 19.4 feet); minimum, 314 second-feet Oct. 25, 1928.

REMARKS.—Records fair. No diversions.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,900	3,270	1,560	1,180	3,440	3,270	1,270	9,810	4,350	2,390	585	585
2	1,670	2,520	1,560	1,180	3,440	2,800	1,270	17,200	3,790	2,140	585	543
3	1,780	2,390	1,460	1,180	4,550	2,520	1,270	18,900	3,610	2,360	550	431
4	1,670	2,140	1,360	1,180	8,780	2,020	1,180	18,900	3,270	3,110	585	431
5	1,670	1,900	1,360	1,180	9,540	1,900	1,140	21,700	3,110	2,390	585	501
6	1,560	1,780	1,270	1,180	11,600	1,780	1,090	17,700	3,440	2,020	529	585
7	1,460	1,900	1,270	1,180	9,540	1,670	1,090	24,000	3,110	1,780	585	655
8	1,460	2,260	1,180	1,180	7,170	1,460	1,040	22,400	2,950	1,670	550	529
9	1,460	2,520	1,180	1,180	5,640	1,360	960	38,600	2,950	1,670	550	655
10	1,560	3,440	1,180	1,270	4,760	1,360	960	41,100	3,610	1,560	585	880
11	2,020	3,790	1,180	1,180	4,550	1,360	960	30,000	3,610	1,670	585	880
12	1,900	2,950	1,180	1,270	3,970	1,270	920	24,000	3,270	1,560	550	760
13	2,140	2,660	1,270	1,780	3,610	1,270	880	28,200	2,950	1,460	585	1,090
14	2,390	2,520	1,040	1,780	3,110	1,270	1,180	20,300	3,270	1,460	620	1,460
15	4,350	2,660	1,550	1,670	2,950	1,180	2,020	20,300	3,790	1,270	522	2,140
16	3,270	3,610	7,460	1,460	2,660	1,180	2,260	31,000	20,300	1,180	487	1,900
17	2,800	3,790	3,970	1,360	2,390	1,270	1,090	38,600	35,200	1,000	473	1,560
18	3,610	3,440	2,950	1,360	2,260	2,190	1,000	43,700	37,400	1,000	473	1,670
19	3,440	3,110	2,140	1,360	2,140	4,760	920	38,600	33,000	960	487	1,560
20	2,800	2,950	1,560	1,360	1,900	4,350	880	28,200	18,900	880	501	1,460
21	2,660	2,520	1,460	1,360	1,780	4,350	920	20,300	15,400	760	501	1,270
22	2,520	2,390	2,390	1,360	5,370	3,270	880	16,500	10,800	760	585	1,180
23	2,390	2,260	1,780	1,670	11,600	2,950	840	17,700	8,080	800	655	960
24	2,140	2,020	1,270	1,780	8,080	2,660	760	19,600	6,890	800	585	840
25	2,020	1,900	1,180	1,900	5,190	2,660	760	16,500	6,110	725	585	800
26	1,900	1,780	1,270	2,140	6,110	2,260	960	13,900	4,970	725	655	690
27	1,900	1,670	1,270	2,390	4,760	1,900	2,570	12,500	3,790	725	760	585
28	1,900	1,670	1,180	2,800	3,790	1,670	3,270	11,200	2,800	655	725	585
29	1,900	1,560	1,140	2,950	-------	1,560	2,800	7,460	2,660	655	655	501
30	2,280	1,560	1,180	3,610	-------	1,460	4,620	5,870	2,390	620	690	473
31	4,550	-------	1,180	3,610	-------	1,360	-------	4,970	-------	585	655	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,550	1,460	2,290	141,000
November	3,790	1,560	2,500	149,000
December	7,460	1,040	1,710	105,000
January	3,610	1,180	1,680	103,000
February	11,600	1,780	5,170	287,000
March	4,760	1,180	2,140	132,000
April	4,620	760	1,390	82,700
May	43,700	4,970	21,900	1,350,000
June	37,400	2,390	8,660	515,000
July	3,110	585	1,330	81,800
August	760	473	581	35,700
September	2,140	431	939	55,900
The year	43,700	431	4,190	3,040,000

RED RIVER AT GARLAND CITY, ARK.

LOCATION.—Chain gage in SE. ¼ sec. 17, T. 14 S., R. 25 W., on St. Louis Southwestern Railway bridge at Garland City.

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

EXTREMES.—Maximum discharge during year, 119,000 second-feet May 22, 23 (gage height, 32.5 feet); minimum, 730 second-feet Aug. 29, 30 (gage height 5.4 feet).

1927–1930: Maximum discharge, that of May 22, 23, 1930; minimum discharge, 660 second-feet Sept. 2, 1929; minimum gage height, 4.3 feet Oct. 24–29, 1928.

Maximum stage known, 35.4 feet in April, 1927.

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	6,100	4,210	4,000	6,760	16,800	26,800	10,600	5,890	57,100	7,420	1,180	1,270
2	6,100	6,540	5,890	6,320	17,400	26,000	9,220	8,760	48,200	6,540	1,180	1,270
3	4,840	12,300	3,400	5,890	17,400	24,400	7,860	9,220	40,300	5,680	1,000	1,270
4	4,630	13,200	3,200	5,890	19,400	21,300	8,080	9,450	32,400	5,050	1,000	1,270
5	4,420	14,500	3,010	6,980	29,300	17,700	6,760	13,800	24,400	4,420	1,180	1,090
6	4,420	14,200	2,820	7,860	38,400	14,500	6,100	34,700	18,200	4,000	1,180	1,090
7	3,600	12,300	2,630	7,860	47,700	12,300	5,890	48,700	14,500	4,000	1,180	1,270
8	3,600	9,450	2,630	8,300	51,900	11,100	5,470	57,100	12,800	4,210	1,000	1,270
9	3,600	7,200	2,440	9,680	53,400	9,680	5,260	64,600	11,800	3,800	1,000	1,270
10	3,200	5,890	3,400	14,000	51,900	8,760	4,840	68,900	12,000	4,000	1,180	1,270
11	3,010	4,840	5,260	16,000	47,700	8,300	4,420	70,600	11,300	4,000	1,000	1,180
12	2,820	4,420	5,680	19,100	43,200	7,420	4,210	78,900	9,910	3,400	1,180	1,270
13	2,630	6,320	5,260	22,000	37,900	7,200	4,000	82,300	8,300	3,200	1,000	1,180
14	3,600	8,760	4,630	26,000	30,700	6,320	3,800	82,900	7,420	3,010	1,000	1,360
15	12,000	11,300	4,210	32,000	23,800	5,680	3,600	82,300	6,540	2,820	1,180	1,450
16	13,500	13,500	4,210	36,500	18,200	5,260	3,600	84,600	6,320	2,630	1,180	1,360
17	12,000	13,000	6,100	40,800	15,200	5,050	3,600	87,000	6,100	2,440	1,000	1,540
18	10,400	10,800	27,300	41,700	13,000	5,050	3,200	97,000	5,470	2,260	1,000	1,720
19	10,400	8,990	43,200	39,300	11,600	5,680	3,800	104,000	5,050	2,440	1,270	1,630
20	12,000	8,300	46,200	32,000	10,600	5,680	5,050	108,000	23,000	2,260	1,270	1,540
21	12,000	8,300	41,700	31,500	9,450	7,640	5,260	118,000	34,200	2,260	1,270	1,720
22	9,680	8,990	37,000	25,200	8,990	15,500	4,840	119,000	35,600	2,260	1,270	1,900
23	7,420	9,450	32,400	21,000	9,220	21,000	4,420	119,000	28,500	2,080	1,090	2,820
24	6,100	8,990	28,500	18,800	11,600	21,000	3,800	113,000	21,600	2,260	1,090	3,200
25	5,470	8,080	42,200	17,400	13,800	18,500	3,200	107,000	16,800	1,900	1,090	2,630
26	4,840	6,980	19,400	15,500	17,900	16,300	2,820	102,000	13,500	1,720	910	2,440
27	4,210	6,100	17,700	14,800	26,000	18,500	2,440	98,800	11,300	1,540	910	2,440
28	3,800	5,470	11,100	14,500	27,700	21,000	2,630	94,600	9,910	1,540	910	2,440
29	3,600	4,840	8,760	14,800	-------	19,800	3,010	87,000	9,220	1,360	730	2,260
30	3,200	4,420	7,420	15,500	-------	16,300	3,200	77,800	8,300	1,180	730	2,080
31	3,200	-------	6,980	16,300	-------	12,800	-------	67,300	-------	1,180	1,090	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	13,500	2,630	6,140	378,000
November	14,500	4,210	8,720	519,000
December	46,200	2,440	14,100	867,000
January	41,700	5,890	19,000	1,170,000
February	53,400	8,990	25,700	1,430,000
March	26,800	5,050	13,600	836,000
April	10,600	2,440	4,830	287,000
May	119,000	5,890	74,300	4,570,000
June	57,100	5,050	18,300	1,090,000
July	7,420	1,180	3,120	192,000
August	1,270	730	1,070	65,800
September	3,200	1,090	1,680	100,000
The year	119,000	730	15,900	11,500,000

PEASE RIVER NEAR CROWELL, TEX.

LOCATION.—Water-stage recorder installed Apr. 20, 1930, on Quanah-Crowell highway bridge 1 mile below mouth of Devils Creek and 8 miles north of Crowell, Foard County. Chain gage at same site used prior to Apr. 20.
DRAINAGE AREA.—2,940 square miles.
RECORDS AVAILABLE.—January, 1924, to September, 1930.
EXTREMES.—Maximum discharge during year, about 3,000 second-feet Apr. 29 (gage height, 5.43 feet); no flow during several periods.
1924–1930: Maximum gage height, 9.92 feet Oct. 3, 1926 (discharge not determined); no flow during several periods.
REMARKS.—Monthly records poor; daily discharge not sufficiently accurate for publication. No diversions.

Monthly discharge, in second-feet, 1929–30

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,360	0	94.6	5,820
November	360	.3	28.9	1,720
December	7.5	----------	3.10	191
January	----------	0	11.3	695
February	176	0	18.3	1,020
March	794	0	47.3	2,910
April	1,920	0	120	7,140
May	395	0	69.4	4,270
June	17	0	.58	35
July	67	0	3.19	196
August	19	0	.88	54
September	61	0	3.97	236
The year	1,920	0	33.5	24,300

NORTH FORK OF RED RIVER AT LUGERT DAM, OKLA.

LOCATION.—Staff gage in SW. ¼ SE. ¼ sec. 22, T. 5 N., R. 20 W., at Lugert Dam. Mean altitude of crest of dam, 1,514.31 feet above mean sea level.
DRAINAGE AREA.—2,200 square miles.
RECORDS AVAILABLE.—March to September, 1930.
EXTREMES.—Maximum stage during period, 3.70 feet May 7; no flow over dam on various days.
Maximum stage known, 14.5 feet May 16, 1928.
REMARKS.—Records show depth of water on crest of dam. Some regulation by sluice gates in dam.
The following discharge measurement was made during the year:
June 21: Gage height, 0.16 foot; discharge, 68.1 second-feet.

Daily gage height, in feet, 1930

Day	Mar.	Apr.	May	June	July	Day	Mar.	Apr.	May	June	July
1	------	0.02	0.55	0.10	0.00	16	------	------	.60	.42	------
2	------	.04	.60	.10	.05	17	------	.00	------	.50	------
3	------	.04	.48	.10	.12	18	------	.02	------	.40	------
4	------	.04	1.26	.10	.10	19	0.20	.00	------	.28	------
5	------	.04	.60	.10	.10	20	.18	.02	.10	.20	------
6	------	.02	.88	.10	.05	21	.18	.00	.32	.18	------
7	------	.02	3.20	.10	.05	22	.12	.00	.35	.20	------
8	------	.02	1.08	.10	.00	23	.12	------	.35	.10	------
9	------	.01	.60	.10	.00	24	.12	------	.32	.22	------
10	------	------	.40	1.75	------	25	.10	------	.30	.22	------
11	------	------	.88	.90	------	26	.05	------	.25	.15	------
12	------	------	.42	.45	------	27	.04	.08	.20	.08	------
13	------	------	.85	.42	------	28	.04	.18	.20	.00	------
14	------	------	1.75	.45	------	29	.04	.40	.20	.00	------
15	------	------	2.00	.45	------	30	.04	1.08	.10	.02	------
						31	.03	------	.10	------	------

NOTE.—No flow over dam on days for which no record is given. Sluice gate was open 7½ hours on May 10, 6½ hours on May 13, and 13½ hours on May 16.

NORTH FORK OF RED RIVER NEAR LUGERT, OKLA.

LOCATION.—Chain gage in sec. 33, T. 5 N., R. 20 W., on Atchison, Topeka & Santa Fe Railway bridge half a mile below mouth of Elm Creek and 3 miles southwest of Lugert. Zero of gage is 1,457.10 feet above mean sea level.

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

EXTREMES.—Maximum discharge during year, 6,900 second-feet May 6 (gage height, 10.04 feet); minimum, 8 second-feet during August.

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	-------	143	118	71	162	126	64	660	172	36		52
2	-------	134	84	63	194	110	68	810	152	28		48
3	-------	134	84	60	402	85	61	750	126	71		46
4	-------	95	87	54	940	87	60	~~1,780~~ 2620	122	80		44
5	-------	81	88	50	630	102	58	940 4920	134	54		42
6	-------	88	88	48	520	95	47	~~2,800~~	172	36		48
7	-------	110	92	54	402	118	44	~~5,250~~ 7260	92	24		55
8	-------	126	84	42	312	82	45	2,100	102	20		54
9	-------	380	95	30	312	85	32	1,010	80	16		172
10	-------	750	88		207	88	25	810	~~2,800~~ 3650	14		134
11	-------	470	85		207	68	22	1,380	~~2,100~~ 3400	14	8	82
12	-------	290	87		207	77	21	750	810	10		66
13	-------	194	88		194	73	16	1,150	858	10		56
14	-------	152	81		172	74	19	~~2,400~~	1,080	12		54
15	95	143	77		162	88	24	~~3,300~~ 5100	860 3400	10		52
16	85	134	70		152	84	21	1,150	290			48
17	75	134	84		162	194	12	1,080	660			46
18	61	152	41		162	235	13	602	270			46
19	64	162	43		152	143	18	425	162			44
20	56	143	24	35	134	152	13	118	118			42
21	48	134	40		152	143	13	402	102			42
22	59	118	40		152	118	15	358	88			44
23	41	118	29		172	118	21	270	68	10	39	44
24	37	110	35		134	102	35	220	110		102	46
25	37	110	44		134	84	35	194	520		102	42
26	37	110	57		118	77	35	172	134		152	38
27	46	143	60		110	85	73	162	60		110	36
28	49	134	70		110	73	207	162	54		74	36
29	56	118	102		-------	77	750	143	38		67	36
30	250	110	95		-------	70	~~1,620~~	134	36		53	38
31	194	-------	80		-------	63	2430	118	-------		53	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October 15–31	250	37	75.9	2,560
November	750	81	174	10,400
December	118	24	72.3	4,450
January	71	30	40.1	2,470
February	940	110	245	13,600
March	235	63	102	6,270
April	2430 ~~1,620~~	12	143 ~~116~~	8520 ~~6,900~~
May	7260 ~~5,250~~	118	1316 ~~1,050~~	~~64,600~~
June	3650 ~~2,800~~	36	642 ~~391~~	2 7500 ~~23,300~~
July	80	10	19.2	1,180
August	152	8	29.9	1,840
September	172	36	54.4	3,240
The period				141,000

ELM FORK OF NORTH FORK OF RED RIVER NEAR MANGUM, OKLA.

LOCATION.—Chain gage in E. ½ sec. 10, T. 15 N., R. 22 W., 4 miles north of Mangum.

RECORDS AVAILABLE.—April, 1905, to March, 1908; March to September, 1930.

EXTREMES.—Maximum discharge recorded during year, 2,860 second-feet May 6 (gage height, 9.70 feet); minimum discharge, 3 second-feet Aug. 9; minimum gage height, 2.82 feet Apr. 23, 25.

REMARKS.—Discharge estimated Mar. 16, 17, Sept. 25–30. Records fair.

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

Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1	------	8	76	58	13	4	47
2	------	10	190	41	16	5	44
3	------	12	484	155	12	6	40
4	------	13	680	77	9	5	39
5	------	12	145	65	8	4	46
6	------	16	1,500	64	25	4	44
7	------	15	1,390	45	12	5	43
8	------	16	600	53	10	4	85
9	------	13	155	41	9	3	123
10	------	14	135	1,640	11	4	81
11	------	15	135	560	8	5	58
12	------	16	123	68	7	6	58
13	------	15	111	64	6	4	47
14	------	15	205	103	6	4	47
15	------	16	520	98	7	4	43
16	20	14	145	145	8	4	46
17	20	13	125	65	9	10	44
18	20	12	107	79	10	11	41
19	19	11	94	73	11	8	42
20	17	11	85	65	11	7	44
21	16	6	77	39	10	8	44
22	17	5	71	24	8	23	43
23	15	8	65	16	6	57	41
24	17	5	53	250	6	67	38
25	18	5	57	35	8	178	37
26	16	7	60	23	5	178	36
27	14	6	58	15	6	125	35
28	14	40	51	10	5	79	35
29	13	325	55	20	4	63	35
30	9	280	50	16	4	50	35
31	8	------	89	------	4	47	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
March 16–31	20	8	15.8	501
April	325	5	31.8	1,890
May	1,500	50	248	15,200
June	1,640	10	134	7,970
July	25	4	8.8	541
August	178	3	31.7	1,950
September	123	35	48.0	2,860
The period	------	------	------	30,900

WASHITA RIVER NEAR DURWOOD, OKLA.

LOCATION.—Chain gage in sec. 3, T. 4 S., R. 3 E., 3 miles north of Durwood.
RECORDS AVAILABLE.—August, 1928, to September, 1930.
EXTREMES.—Maximum discharge during year, 16,900 second-feet May 16 (gage height, 27.78 feet); minimum, 110 second-feet Sept. 28 (gage height, 3.10 feet).

1928–1930: Maximum discharge, that of May 16, 1930; minimum, that of Sept. 28, 1930.

Maximum stage known, 38 feet in April and June, 1927.
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	*615	790	480	510	3,000	990	545	4,220	2,057	950	330	250
2	580	790	450	510	3,600	950	545	3,060	1,917	3,110	310	250
3	580	685	422	510	3,550	870	510	2,050	1,630	2,330	280	250
4	580	650	422	510	5,320	790	510	5,610	1,427	1,700	290	330
5	580	1,030	422	510	6,200	755	510	5,320	1,089	1,270	356	510
6	*515	1,350	395	510	3,900	720	510	4,180	685	1,270	351	422
7	450	1,350	395	510	2,580	685	480	5,730	384	1,030	330	330
8	422	1,190	422	510	1,840	685	480	6,650	517	870	330	330
9	373	950	450	510	1,190	650	480	6,710	1,350	910	330	330
10	356	830	480	510	720	580	480	9,280	2,330	990	330	330
11	450	755	480	545	510	545	450	11,600	1,989	910	320	340
12	510	720	480	580	450	510	450	7,740	1,917	830	320	351
13	2,260	720	480	580	384	510	580	6,590	2,520	720	310	340
14	2,260	1,030	5,460	580	330	480	1,350	5,850	3,389	650	300	280
15	1,770	1,270	2,640	580	290	480	615	7,310	5,607	615	300	240
16	1,630	1,190	1,110	580	910	480	545	16,600	10,600	545	290	231
17	1,270	950	870	545	790	480	510	15,600	14,300	480	280	755
18	870	870	755	510	755	1,190	510	15,400	8,160	480	280	1,490
19	580	790	685	510	755	910	450	12,100	6,890	450	270	870
20	580	650	650	510	790	755	450	8,370	4,877	422		580
21	545	545	650	510	1,190	685	422	6,530	3,707	450	*270	362
22	510	510	615	510	5,180	650	395	5,810	2,267	510		
23	480	*530	615	510	3,850	650	*395	10,800	1,569	480		
24	480	545	580	510	2,700	615	395	9,000	1,427	450	260	
25	450	580	*580	510	1,910	790	390	7,320	957	450	260	*230
26	450	510	580	545	1,560	790	1,560	5,500	1,117	422	260	
27	422	510	545	685	1,350	720	2,260	4,090	1,190	395	260	
28	395	510	545	1,560	1,110	615	1,030	3,550	1,357	384	250	110
29	422	510	510	1,910	-------	580	6,100	3,220	1,190	373	250	118
30	545	480	510	2,190	-------	545	7,530	2,700	1,037	362	250	195
31	685	-------	510	2,580	-------	545	-------	2,330	--------	351	250	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,260	356	730	44,900
November	1,350	480	793	47,200
December	5,460	395	780	48,000
January	2,580	510	730	44,900
February	6,200	290	2,030	113,000
March	1,190	480	684	42,100
April	7,530	390	1,050	62,500
May	16,600	2,050	7,120	438,000
June	14,300	384	2,980	177,000
July	3,110	351	812	49,900
August	356	250	291	17,900
September	1,490	110	366	21,800
The year	16,600	110	1,530	1,110,000

*Estimated.

KIAMICHI RIVER NEAR BELZONI, OKLA.

LOCATION.—Chain gage in SE. ¼ sec. 14, T. 4 S., R. 17 E., 1¾ miles northwest of Belzoni and 6 miles below mouth of Cedar Creek. Zero of gage is 313.56 feet above mean sea level.

DRAINAGE AREA.—1,420 square miles.

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

EXTREMES.—Maximum discharge during year, 25,800 second-feet May 4 (gage height, 33.16 feet); no flow for several days during August.

1925–1930: Maximum discharge, about 61,400 second-feet Dec. 14, 1927 (gage height, 41.24 feet); minimum, that of August, 1930.

Maximum stage known, 44.2 feet in October, 1915.

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		1,060	225	955	1,380	1,440	570	370	465	4	1	240
2		955	210	1,220	1,380	1,280	505	705	405	6	1	179
3		855	198	1,620	1,560	1,060	485	4,500	388	18	1	106
4		[a]725	185	2,040	3,660	905	425	24,000	370	11	1	335
5	[a]75	[a]595	173	1,740	7,620	805	388	17,900	370	18	1	285
6		465	161	1,560	7,080	755	335	9,150	370	38	1	240
7		370	270	1,380	4,140	660	318	14,700	352	38	1	240
8		300	270	1,280	2,820	570	300	13,400	352	32	1	225
9		285	255	1,680	2,160	525	285	12,200	335	21	1	210
10	1,800	755	318	1,980	1,740	485	255	11,200	335	14	0	405
11	4,620	1,860	370	1,980	1,380	445	240	12,200	335	14	0	352
12	2,520	1,000	352	2,220	1,110	388	210	11,600	318	14	0	300
13	1,440	570	335	6,180	1,000	370	198	8,800	335	13	0	255
14	[a]1,620	505	4,800	8,280	855	370	570	3,000	318	13	0	210
15	1,800	445	7,800	4,980	755	352	1,220	3,690	300	12	0	198
16	1,330	705	14,700	3,300	660	370	[a]940	11,500	270	11	0	173
17	1,060	1,060	11,400	2,160	570	335	[a]665	10,700	225	8	0	118
18	615	1,280	7,500	1,380	525	3,510	388	9,500	[a]160	8	0	72
19	425	1,060	4,020	1,110	485	5,460	352	7,680	100	7	0	55
20	335	855	2,700	905	465	3,840	335	[a]5,490	98	6	0	38
21	240	660	1,860	805	425	1,800	285	3,300	72	5	0	34
22	185	525	1,680	1,160	755	1,330	255	2,160	52	4	0	25
23	155	445	1,500	1,740	2,340	1,110	210	11,800	240	4	0	32
24	145	405	1,280	1,560	2,460	2,760	170	13,400	132	3		26
25	130	388	615	1,220	1,980	2,820	138	4,980	56	3	0	20
											0	
26	112	352	570	855	2,820	2,400	270	2,400	30	2		1,680
27	100	318	525	1,000	2,940	2,100	1,380	1,560	22	2	0	615
28	185	300	615	1,440	1,860	1,860	805	[a]1,300	22	2	0	525
29	240	270	660	1,920	-------	1,620	485	[a]1,040	24	2	0	445
30	465	255	705	1,680	-------	1,330	445	[a]785	23	1	0	388
31	755	-------	405	1,440	-------	615	-------	525	-------	1	335	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,620	75	676	41,600
November	1,860	255	654	38,900
December	14,700	161	2,150	132,000
January	8,280	805	2,020	124,000
February	7,620	425	2,030	113,000
March	5,460	335	1,410	86,700
April	1,380	138	448	26,700
May	24,000	370	7,600	467,000
June	465	22	229	13,600
July	38	1	10.8	664
August	335	0	11.1	682
September	1,680	20	268	15,900
The year	24,000	0	1,470	1,060,000

[a] Estimated.

LITTLE RIVER NEAR WRIGHT CITY, OKLA.

LOCATION.—Chain gage in sec. 6, T. 6 S., R. 22 E., at Texas, Oklahoma & Eastern Railroad bridge 2 miles west of Wright City. Zero of gage is 351.03 feet above mean sea level.

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

EXTREMES.—Maximum discharge during year, 30,000 second-feet Dec. 16 (gage height, 32.66 feet); no flow July 24 to Sept. 15, Sept. 19–25.

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

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.
1	-------	1,240	153	375	840	890	530	285	345	8	0
2	-------	840	138	650	1,060	690	330	225	255	7	0
3	-------	570	132	1,100	1,180	570	315	2,940	210	6	0
4	-------	375	112	890	2,610	495	285	18,400	183	6	0
5	-------	300	98	740	4,360	465	240	13,800	159	6	0
6	-------	255	122	610	2,820	405	210	4,030	147	6	0
7	-------	240	315	740	1,840	375	189	23,800	130	6	0
8	-------	225	405	1,210	1,520	330	165	15,600	135	6	0
9	-------	315	375	1,660	1,270	300	159	4,940	122	5	0
10	-------	1,180	360	1,840	1,060	270	153	10,400	100	5	0
11	-------	1,140	330	1,600	740	225	135	25,700	90	4	0
12	570	840	330	1,880	740	225	115	12,000	75	4	0
13	790	690	315	6,400	610	225	112	3,670	72	3	0
14	495	530	1,920	4,570	495	240	105	1,860	54	2	0
15	435	435	13,100	2,580	435	210	118	1,540	32	2	0
16	570	495	28,300	1,760	345	210	270	12,100	30	2	1
17	405	650	16,200	1,440	330	210	192	15,100	34	1	1
18	285	610	3,460	1,180	300	690	153	8,480	30	1	1
19	210	650	2,700	840	285	2,340	125	5,360	28	1	0
20	168	690	1,780	790	255	1,760	112	3,550	24	1	0
21	138	530	1,520	1,240	255	1,380	110	1,880	14	1	0
22	112	405	1,100	1,140	530	1,060	98	1,360	14	1	0
23	85	360	790	890	740	610	80	11,200	14	1	0
24	58	315	650	740	840	2,000	65	6,500	14	0	0
25	38	285	530	650	1,020	1,720	54	3,460	11	0	0
26	60	255	465	610	1,180	1,480	78	1,640	10	0	1
27	54	240	435	980	1,210	1,140	650	1,060	10	0	1
28	82	195	495	1,060	1,060	890	530	790	10	0	1
29	610	165	435	1,060	-------	610	435	530	10	0	1
30	650	153	405	1,060	-------	495	360	435	10	0	1
31	2,250	-------	360	940	-------	405	-------	435	-------	0	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October 12-31	2,250	38	403	16,000
November	1,240	153	506	30,100
December	28,300	98	2,510	154,000
January	6,400	375	1,390	85,500
February	4,360	255	1,070	59,400
March	2,340	210	739	45,400
April	650	54	216	12,900
May	25,700	225	6,870	422,000
June	345	10	79.1	4,710
July	8	0	2.7	166
September	1	0	.3	18
The period				830,000

NOTE.—No flow during August.

LITTLE RIVER NEAR IDABEL, OKLA.

LOCATION.—Chain gage in NE. ¼ sec. 19, T. 7 S., R. 24 E., 13 miles downstream from mouth of Glover Creek and 3 miles north of Idabel. Zero of gage is 318.64 feet above mean sea level.

RECORDS AVAILABLE.—October, 1929, to September, 1930. 25,200 WSP 1241

EXTREMES.—Maximum discharge during year, ~~17,000~~ second-feet May 12 (gage height, 32.80 feet); no flow Sept. 8, 9; minimum gage height, 2.74 feet July 28, Aug. 2.

REMARKS.—Records fair. Discharge interpolated Aug. 3, 4.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	3,260	470	900	1,670	1,580	775	525	700	38	8	2
2	-------	2,090	410	1,000	1,700	1,350	675	440	550	33	8	2
3	-------	1,430	410	1,320	2,330	1,220	625	850	460	32	6	4
4	-------	1,020	410	1,610	3,960	1,120	550	~~5,590~~	380	30	4	9
5	-------	875	390	1,430	5,860	1,020	480	~~9,700~~	300	30	3	8
6	-------	700	370	1,250	6,220	1,100	440	~~10,200~~	300	34	5	3
7	-------	610	410	1,150	5,000	900	400	~~10,400~~	285	28	8	1
8	-------	590	700	1,580	3,510	850	360	~~15,400~~	265	27	10	0
9	-------	570	1,000	2,700	2,360	750	320	~~13,700~~	245	29	10	0
10	-------	1,100	950	3,680	1,940	700	300	~~10,600~~	230	30	10	1
11	188	2,060	875	3,720	1,580	650	285	~~13,100~~	245	48	10	1
12	630	1,820	850	3,510	1,380	610	245	~~16,100~~	170	57	9	1
13	1,020	1,430	800	5,460	1,250	610	230	~~13,300~~	152	57	9	1
14	1,100	1,350	1,460	7,150	1,150	630	210	~~9,850~~	138	57	10	3
15	875	1,150	5,460	6,180	925	675	210	~~7,150~~	120	39	10	9
16	675	1,020	9,480	3,920	800	630	285	~~5,680~~	110	20	10	10
17	650	1,100	15,900	2,950	825	610	420	~~10,000~~	100	23	8	12
18	700	1,280	14,700	2,180	800	590	320	~~10,000~~	90	16	6	14
19	590	1,400	12,000	1,400	750	2,950	285	~~11,700~~	87	16	3	10
20	490	1,380	8,350	1,430	700	3,680	245	~~10,700~~	84	15	3	7
21	450	1,200	5,460	1,730	650	2,740	210	~~8,290~~	82	14	9	4
22	390	1,050	2,840	2,090	800	1,600	188	~~5,500~~	70	14	8	2
23	350	900	1,790	1,850	1,250	1,660	170	~~3,800~~	63	15	12	1
24	310	825	1,350	1,580	1,460	2,250	145	~~2,250~~	63	17	11	1
25	250	725	1,180	1,380	1,430	3,480	138	~~10,700~~	60	15	10	1
26	260	675	1,120	1,280	1,490	2,780	130	~~7,750~~	56	11	5	2
27	250	610	1,050	1,430	1,790	2,000	360	~~4,600~~	50	10	5	69
28	270	570	1,020	1,820	1,730	1,570	750	2,040	44	8	4	46
29	330	550	1,080	1,940	-------	1,240	850	1,180	39	8	2	21
30	925	510	1,020	1,880	-------	1,000	675	925	39	10	2	6
31	1,640	-------	925	1,730	-------	875	-------	750	-------	10	2	------

WSP 1241

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October 11–31	1,640	188	588	24,500
November	3,260	510	1,130	67,200
December	~~15,900~~	370	~~3,040~~	~~187,000~~ 214,000
January	7,150	900	2,360	145,000
February	6,220	650	1,980	110,000
March	3,680	590	1,400	86,100
April	850	130	376	22,400
May	~~16,100~~	440	~~7,760~~	~~477,000~~ 567,000
June	700	39	186	11,100
July	57	8	25.5	1,570
August	12	2	7.1	437
September	69	0	8.4	500
The period	24,100	0	1730	~~1,130,000~~ 1,250,000

WSP 1241

LITTLE RIVER NEAR WILTON, ARK.

LOCATION.—Chain gage in NW. ¼ sec. 30, T. 11 S., R. 29 W., 200 feet below Cossatot River and 3 miles north of Wilton.

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

EXTREMES.—Maximum discharge during year, 46,800 second-feet May 13 (gage height, 26.02 feet); minimum, 8 second-feet Sept. 24.

1928–1930: Maximum discharge, that of May 13, 1930; minimum discharge, that of Sept. 24, 1930; minimum gage height, 1.85 feet Sept. 30, 1928. Maximum stage known, 30.2 feet in August, 1915.

REMARKS.—Records fair. Discharge interpolated Aug. 18–20.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	173	5,540	880	1,940	5,080	5,660	2,460	1,340	7,630	128	107	51
2	173	7,870	800	2,040	4,970	4,620	2,140	1,010	5,660	128	80	60
3	146	5,660	760	2,560	5,780	3,850	1,840	1,240	3,630	95	56	60
4	209	3,520	680	3,960	13,600	2,980	1,740	9,190	1,640	114	62	54
5	209	2,460	640	3,960	20,800	2,770	1,540	18,100	1,190	60	62	49
6	185	1,840	522	3,520	27,000	2,560	1,440	23,550	1,060	86	69	14
7	161	1,740	560	2,880	27,000	2,560	1,240	25,000	922	78	60	10
8	128	1,240	922	2,980	22,700	2,660	1,140	25,800	800	86	65	11
9	101	1,340	3,080	4,970	19,200	2,140	1,010	27,800	720	76	53	32
10	89	1,190	3,410	8,590	13,500	1,740	840	28,100	680	67	49	49
11	104	1,540	2,880	14,000	9,920	1,540	800	28,400	522	65	60	49
12	83	3,190	2,560	15,300	7,630	1,540	760	32,700	485	95	167	40
13	161	4,180	2,350	17,600	5,890	1,540	680	46,800	429	119	101	26
14	800	4,180	1,640	21,900	4,180	1,440	600	41,400	352	128	98	26
15	1,540	4,740	1,940	26,200	3,190	1,440	600	34,800	760	104	114	35
16	1,540	4,180	6,350	26,200	2,660	1,440	600	30,600	457	83	98	26
17	1,640	3,190	11,700	22,300	2,460	1,440	560	30,600	429	86	65	19
18	1,440	3,190	15,400	17,400	2,140	1,440	680	33,700	450	98	52	14
19	1,240	3,300	18,400	12,000	1,940	1,840	760	34,800	191	95	40	16
20	956	3,300	20,000	8,830	1,840	6,700	640	38,100	179	78	28	14
21	760	3,080	20,800	8,230	1,640	7,870	600	36,000	191	56	15	14
22	640	2,880	19,900	8,350	2,040	6,920	522	31,800	173	51	15	11
23	522	2,240	15,400	8,590	4,510	5,320	485	28,400	161	44	22	10
24	387	1,940	8,230	6,700	5,430	4,290	464	26,200	69	39	28	8
25	319	1,740	4,400	5,430	5,540	5,540	436	26,800	191	38	26	10
26	241	1,440	2,980	4,620	6,120	7,750	443	25,800	155	35	27	12
27	197	1,340	2,460	4,510	6,240	7,390	522	23,100	71	44	28	12
28	155	1,190	2,240	5,540	6,000	5,780	640	19,700	78	49	28	12
29	248	1,100	2,350	6,350	------	4,290	1,340	14,900	128	40	36	15
30	185	1,010	1,740	6,120	------	3,410	1,540	11,700	95	45	60	29
31	800	------	1,240	5,430	------	2,880	------	9,430	------	58	54	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,640	83	501	30,800
November	7,870	1,010	2,840	169,000
December	20,800	522	5,720	352,000
January	26,200	1,940	9,320	573,000
February	27,000	1,640	8,540	474,000
March	7,870	1,440	3,660	225,000
April	2,460	436	969	57,700
May	46,800	1,010	24,700	1,520,000
June	7,630	69	983	58,500
July	128	35	76.4	4,700
August	167	15	58.9	3,620
September	60	8	26.3	1,560
The year	46,800	8	4,790	3,470,000

MOUNTAIN FORK RIVER NEAR EAGLETOWN, OKLA.

LOCATION.—Chain gage in SE. ¼ sec. 7, T. 6 S., R. 26 E., 1 mile west of Eagletown and 7 miles above mouth. Zero of gage is 333.95 feet above mean sea level.

RECORDS AVAILABLE.—March, 1924, to December, 1925; October, 1929, to September, 1930. 56,000 U.S.P.I.Z.(1)

EXTREMES.—Maximum discharge during year, ~~43,200~~ second-feet May 11 (gage height, 19.62 feet); no flow Aug. 10 to Sept. 4.

Maximum stage known, 26.4 feet in August, 1915.

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	-------	2,660	240	575	1,020	960	650	180	350	14	1	0
2	-------	1,520	210	625	1,020	850	600	180	270	14	1	0
3	-------	1,020	225	1,620	2,360	750	510	6,050	255	14	1	0
4	-------	750	195	1,240	6,800	650	450	14,700	255	12	1	0
5	-------	625	180	1,020	7,050	650	350	6,550	240	12	1	6
6	-------	490	195	960	2,820	625	310	3,540	225	12	1	7
7	-------	510	310	900	3,740	550	290	24,500	210	11	1	8
8	-------	390	1,020	1,620	3,160	510	270	8,620	195	10	1	10
9	24	350	1,240	2,080	1,840	470	240	2,820	180	9	1	21
10	21	530	900	2,220	1,240	470	225	14,100	180	9	0	33
11	21	1,160	850	6,300	1,620	450	210	32,900	140	8	0	29
12	110	1,320	800	6,300	2,500	330	195	6,550	126	7	0	24
13	450	1,420	700	16,200	2,080	290	180	3,740	110	6	0	16
14	430	1,620	650	7,570	1,080	330	180	1,840	98	6	0	11
15	700	1,520	2,660	6,050	650	390	165	1,080	90	6	0	9
16	700	1,320	20,500	4,380	625	410	165	7,730	80	5	0	9
17	510	1,160	5,320	2,980	575	410	180	6,800	78	4	0	9
18	370	1,160	4,160	1,520	490	450	180	9,990	70	4	0	8
19	270	1,020	3,160	1,160	450	4,840	150	7,310	62	3	0	8
20	58	960	1,960	1,080	390	2,980	140	4,160	61	2	0	8
21	150	960	1,520	1,620	390	1,840	130	2,500	52	2	0	7
22	140	750	1,240	1,620	430	1,320	128	2,080	43	1	0	6
23	120	650	1,020	1,840	600	1,160	124	11,500	37	1	0	5
24	106	575	960	1,520	850	1,160	120	7,830	32	1	0	5
25	92	490	800	1,020	960	1,420	112	2,820	32	1	0	6
26	76	450	750	960	960	1,720	108	1,720	28	1	0	8
27	80	410	700	1,080	960	1,240	140	1,320	24	1	0	12
28	124	350	700	1,420	960	1,080	180	1,020	21	1	0	15
29	150	310	700	1,420	-------	960	195	960	19	1	0	14
30	490	270	650	1,320	-------	850	195	800	16	1	0	12
31	4,160	-------	625	1,160	-------	750	-------	625	-------	1	0	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October 9–31	4,160	21	407	18,600
November	2,660	270	891	53,000
December	20,500	180	1,780	109,000
January	16,200	575	2,630	162,000
February	7,050	390	1,700	94,400
March	4,840	290	996	61,200
April	650	108	236	14,000
May	32,900	180	6,340	390,000
June	350	16	119	7,080
July	14	1	5.8	357
August	1	0	.3	18
September	33	0	10.2	607
The period				910,000

SULPHUR RIVER NEAR DARDEN, TEX.

LOCATION.—Staff gage on St. Louis Southwestern Railway bridge 1 mile south of Darden, Bowie County.

DRAINAGE AREA.—2,750 square miles.

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

EXTREMES.—Maximum discharge during year, 67,200 second-feet May 19 (gage height, 31.7 feet); minimum, 0.3 second-foot Aug. 11–13, Sept. 11–14, 27–30. 1924–1930: Maximum discharge, that of May 19, 1930; no flow Sept. 2–5, 1929.

REMARKS.—Records fair. No diversions. 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	17	86	35	166	3,000	2,720	2,400	2,010	3,300	11	4.1	2.5
2	14	379	31	138	3,000	2,440	1,830	2,400	2,000	14	4.1	2.5
3	17	800	27	124	2,800	2,250	1,500	2,520	930	14	4.1	2.5
4	14	980	23	117	4,100	1,920	950	1,950	430	11	4.1	.9
5	14	648	20	110	4,930	1,560	538	1,980	323	99	2.5	.9
6	11	403	20	103	7,350	1,200	315	2,560	467	419	2.5	.9
7	8.0	299	23	103	15,500	820	236	3,320	457	379	2.5	.9
8	5.8	243	23	145	20,000	516	194	4,000	542	299	.9	.9
9	5.8	194	23	297	19,500	379	166	4,550	980	229	.9	.9
10	5.8	159	23	702	16,000	323	152	5,080	1,260	173	.9	.9
11	5.8	131	73	940	12,500	222	138	6,400	1,220	110	.3	.3
12	4.1	234	187	1,020	8,400	267	117	9,300	784	85	.3	.3
13	4.1	1,040	236	1,890	5,640	236	97	14,500	398	55	.3	.3
14	4.1	1,740	215	2,800	4,480	222	85	19,500	236	39	.9	.3
15	4.1	1,950	194	3,520	3,430	201	73	22,800	173	31	.9	4.1
16	4.1	1,800	166	4,150	2,220	194	61	27,200	131	23	11	4.1
17	5.8	1,320	202	4,720	1,260	187	61	35,400	97	17	11	4.1
18	38	920	824	5,080	674	187	55	55,100	79	11	11	2.5
19	55	568	2,190	4,960	427	201	49	66,100	67	11	11	2.5
20	49	387	2,680	4,100	355	208	49	66,100	55	8.0	11	.9
21	31	307	3,320	3,280	307	358	49	56,200	55	5.8	11	.9
22	20	251	3,850	2,520	307	1,260	79	43,100	55	5.8	11	.9
23	14	201	4,200	2,190	664	1,980	91	31,400	55	5.8	11	.9
24	11	159	3,650	2,010	980	2,480	79	23,400	39	5.8	8.0	.9
25	8.0	131	2,340	2,280	1,350	3,360	67	18,500	31	5.8	8.0	.9
26	5.8	97	1,410	2,160	1,980	3,650	61	14,500	27	5.8	5.8	.9
27	5.8	79	1,020	1,980	2,310	4,000	79	12,100	23	4.1	5.8	.3
28	5.8	67	762	1,830	2,640	4,300	166	10,100	20	4.1	4.1	.3
29	5.8	55	437	2,100	------	4,200	381	9,000	17	4.1	2.5	.3
30	5.8	44	259	2,600	------	3,700	1,380	6,000	14	4.1	2.5	.3
31	11	------	201	2,960	------	3,080	------	4,600	------	4.1	2.5	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	55	4.1	13.2	812
November	1,950	44	522	31,100
December	4,200	20	925	56,900
January	5,080	103	1,970	121,000
February	20,000	307	5,220	290,000
March	4,300	187	1,570	96,500
April	2,400	49	383	22,800
May	66,100	1,950	18,800	1,160,000
June	3,300	14	475	28,300
July	419	4.1	67.5	4,150
August	11	.3	5.05	311
September	4.1	.3	1.33	79
The year	66,100	.3	2,490	1,810,000

CYPRESS CREEK NEAR JEFFERSON, TEX.

LOCATION.—Staff gage at Farrell Bridge, on Jefferson-Harlenton highway 8 miles west of Jefferson, Marion County, and 14 miles above mouth of Black Cypress Creek.

DRAINAGE AREA.—848 square miles.

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

EXTREMES.—Maximum discharge during year, about 22,600 second-feet May 20 (gage height, 25.37 feet); minimum, 1.1 second-feet Aug. 29, 30 (gage height, 0.72 foot).

1924–1930: Maximum discharge, that of May 20, 1930; no flow for several periods.

REMARKS.—Low and medium stage records fair; high-stage records poor. No diversions. Discharge partly estimated May 19, 21.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	18	40	120	644	820	1,480	360	928	30	3.3	1.8
2	5.6	23	62	113	708	982	1,360	388	756	97	3.1	2.2
3	5.6	28	62	113	946	982	1,270	416	486	106	3.1	3.7
4	5.6	28	59	113	1,140	1,040	1,090	349	316	82	2.8	3.0
5	5.6	29	59	82	1,270	1,090	820	338	250	62	2.8	3.0
6	5.1	44	59	99	1,330	1,090	756	360	261	50	2.8	3.0
7	5.1	59	65	120	1,270	1,120	472	472	272	50	2.8	3.0
8	5.2	56	68	178	1,270	1,140	472	564	294	48	2.8	3.0
9	5.8	53	78	250	1,450	1,060	444	596	444	40	2.8	3.2
10	6.6	40	78	338	1,870	910	416	692	444	36	2.8	3.2
11	6.6	68	82	416	2,270	756	294	788	444	34	2.8	3.2
12	6.0	71	82	444	2,380	628	272	1,060	458	30	2.8	3.0
13	5.8	78	82	472	2,170	472	232	1,420	374	24	2.6	3.0
14	5.8	82	85	564	1,880	458	196	1,720	305	22	2.6	2.0
15	5.8	74	92	596	1,620	349	178	3,090	169	18	1.9	2.0
16	6.0	71	120	596	1,360	374	169	10,000	152	15	1.9	2.0
17	6.0	78	144	612	1,160	360	160	12,800	128	14	1.4	1.8
18	6.0	85	136	564	833	349	160	16,400	128	12	1.4	1.8
19	6.0	99	113	596	644	338	152	20,800	113	11	1.4	1.5
20	7.2	92	106	644	596	458	144	22,100	99	9.2	1.4	1.5
21	7.2	92	99	676	486	458	136	18,400	99	8.0	1.4	1.4
22	6.8	85	152	708	458	564	128	13,800	88	7.2	1.3	1.3
23	6.4	82	187	644	548	797	120	9,640	88	5.5	1.3	1.3
24	6.0	74	169	564	612	946	113	6,760	71	5.2	1.2	2.6
25	5.8	71	152	516	628	1,040	99	4,730	62	4.8	1.2	3.1
26	5.8	65	152	564	660	1,120	99	3,350	56	4.5	1.2	3.6
27	7.0	65	152	660	724	1,240	99	2,650	50	4.3	1.2	2.8
28	9.8	59	136	692	772	1,300	152	2,220	46	4.0	1.2	3.1
29	11	34	128	692	-------	1,420	214	1,840	42	3.6	1.1	2.1
30	13	34	128	676	-------	1,520	349	1,520	38	3.6	1.1	1.9
31	16	-------	120	660	-------	1,620	-------	1,300	-------	3.3	1.9	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	16	5.1	6.86	422
November	99	18	61.2	3,640
December	187	40	105	6,460
January	708	82	454	27,900
February	2,380	458	1,130	62,800
March	1,620	338	865	53,200
April	1,480	99	402	23,900
May	22,100	338	5,190	319,000
June	928	38	249	14,800
July	106	3.3	27.2	1,670
August	3.3	1.1	2.05	126
September	3.7	1.3	2.47	147
The year	22,100	1.1	710	514,000

OUACHITA RIVER NEAR HOT SPRINGS, ARK.

LOCATION.—Chain gage in SW. ¼ sec. 29, T. 3 S., R. 19 W., 1 mile above Hot Springs Creek and 5 miles south of Hot Springs. Zero of gage is 304.8 feet above mean sea level.

DRAINAGE AREA.—1,420 square miles.

RECORDS AVAILABLE.—June, 1922, to September, 1930 (discontinued).

EXTREMES.—Maximum discharge during year, 66,000 second-feet May 18 (gage height, 29.0 feet); minimum, 50 second-feet Aug. 9 (gage height, 4.85 feet). 1922–1930: Maximum discharge, 143,000 second-feet May 16, 1923 (gage height, 43.9 feet); minimum discharge, 32 second-feet Sept. 3, 4, 1929; minimum gage height, 4.85 feet Aug. 9, 1930.

REMARKS.—Records good. Discharge estimated Sept. 25–30.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	4,580	440	1,090	2,140	1,920	970	225	1,170	155	53	119
2	94	4,040	440	2,140	1,920	1,720	890	225	1,010	161	52	108
3	87	1,820	440	2,250	2,030	1,440	812	24,200	1,010	149	52	98
4	94	1,170	386	1,920	8,450	1,350	738	3,910	700	141	52	90
5	98	850	386	1,620	1,620	1,170	665	3,910	440	130	52	82
6	103	700	413	1,530	4,730	1,090	595	2,910	440	116	52	80
7	111	560	630	4,440	4,880	1,010	560	5,180	440	106	52	76
8	119	498	1,720	11,000	4,040	930	498	7,060	440	106	52	73
9	130	469	3,270	27,700	3,520	812	469	26,700	413	98	51	71
10	135	440	2,250	18,300	3,030	738	440	26,300	413	90	55	70
11	144	440	1,720	8,890	2,250	700	413	25,600	386	86	53	141
12	146	469	1,440	10,500	1,820	630	386	25,100	362	82	52	225
13	152	1,620	1,260	30,800	1,720	595	362	5,670	362	78	52	179
14	158	2,470	1,090	21,200	1,350	560	362	3,390	338	76	54	149
15	198	3,520	1,010	10,500	1,260	560	338	2,580	315	71	56	267
16	413	2,030	1,260	5,510	1,090	560	338	3,910	315	68	60	292
17	338	1,920	3,030	4,040	1,010	560	315	24,000	338	66	65	338
18	258	1,820	10,500	3,270	930	775	315	63,400	315	63	141	243
19	214	1,720	9,570	2,580	812	2,030	315	50,100	315	62	114	236
20	201	1,440	4,730	2,360	775	4,040	292	26,300	292	59	119	228
21	195	1,260	4,170	2,580	738	2,690	275	8,240	279	58	86	221
22	179	1,090	3,030	2,800	1,530	1,720	258	2,890	258	58	76	214
23	164	1,010	1,720	2,360	2,800	1,530	243	3,030	246	58	68	208
24	146	930	1,440	2,140	2,800	1,720	236	2,360	239	58	65	204
25	135	850	1,260	2,030	2,800	2,910	225	1,530	225	58	65	
26	124	738	1,090	2,030	2,800	2,690	218	1,440	204	58	63	
27	127	630	1,090	3,270	2,580	2,250	221	1,350	179	58	62	200
28	135	560	1,010	3,520	2,360	2,250	232	1,260	167	57	60	
29	141	529	1,010	3,150	-------	1,350	232	1,440	149	57	59	
30	141	469	930	3,650	-------	1,170	225	1,620	138	55	58	
31	1,530	-------	850	2,360	-------	1,010	-------	1,620	-------	54	54	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,530	87	203	12,500
November	4,580	440	1,350	80,300
December	10,500	386	2,050	126,000
January	30,800	1,090	6,500	400,000
February	8,450	738	2,420	134,000
March	4,040	560	1,430	87,900
April	970	218	415	24,700
May	63,400	225	11,500	707,000
June	1,170	138	397	23,600
July	161	54	83.6	5,140
August	141	51	64.7	3,980
September	338	70	174	10,400
The year	63,400	51	2,240	1,620,000

OUACHITA RIVER AT REMMEL DAM, NEAR MALVERN, ARK.

LOCATION.—Water-stage recorder in SW. ¼ NW. ¼ sec. 36, T. 3 S., R. 18 W., 700 feet below Remmel Dam and 9 miles northwest of Malvern. Zero of gage is 247.94 feet above mean sea level.

DRAINAGE AREA.—1,540 square miles.

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

EXTREMES.—Maximum discharge during year, 58,200 second-feet May 10 (gage height, 24.0 feet); minimum, 32 second-feet during October (gage height, 1.76 feet).

1925–1930: Maximum discharge, about 138,000 second-feet Apr. 21, 1927 (gage height, 35.7 feet); minimum, 15 second-feet Sept. 12, 13, 1925 (gage height, 1.52 feet).

Maximum stage known, 36.3 feet May 16, 1923 (discharge, about 140,000 second-feet).

REMARKS.—Records excellent. Regulation by Remmel Dam.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	394	2,840	349	961	2,830	2,800	1,750	318	152	104	88	95
2	113	4,130	180	1,740	2,590	2,410	2,000	213	164	102	99	96
3	122	1,570	220	1,860	3,960	2,360	1,010	5,680	152	110	104	100
4	146	800	210	2,300	38,000	1,410	220	4,170	155	119	185	131
5	120	1,590	746	1,550	27,400	1,390	328	4,710	151	102	84	121
6	206	1,210	1,060	1,860	11,400	1,800	356	5,020	115	107	95	78
7	150	1,250	1,080	6,790	6,920	2,040	780	6,620	107	108	96	99
8	128	1,260	890	18,900	5,160	1,030	734	7,740	129	99	98	92
9	130	529	2,150	34,500	3,900	255	831	13,400	140	101	99	167
10	150	330	2,750	24,000	3,070	1,050	372	25,500	174	97	71	101
11	132	285	2,760	10,600	2,890	812	393	45,600	386	100	112	104
12	148	562	2,400	19,200	2,790	790	524	24,500	307	99	80	93
13	253	1,650	1,840	37,300	2,680	1,420	493	7,980	361	95	96	111
14	136	2,390	1,180	26,200	2,670	1,170	159	4,820	222	97	90	105
15	214	2,060	635	12,900	2,390	146	433	3,500	173	95	91	94
16	200	2,790	1,950	7,220	1,010	301	144	4,870	267	95	80	101
17	207	2,020	2,770	5,440	456	547	149	9,120	195	100	73	101
18	194	2,010	11,700	4,530	838	905	250	29,400	271	93	91	101
19	251	2,440	11,300	3,110	903	891	210	20,200	159	98	68	105
20	302	1,690	6,640	2,770	1,210	2,330	395	10,800	184	102	78	105
21	123	2,010	3,930	3,240	1,020	2,840	185	5,880	134	89	69	102
22	137	1,730	2,980	3,650	1,860	2,780	131	3,780	217	97	95	100
23	159	1,320	2,830	3,040	1,890	2,010	177	4,220	113	102	96	100
24	136	404	2,640	2,770	2,740	2,410	164	5,420	133	78	88	111
25	175	1,060	1,540	2,840	2,800	2,720	145	5,540	109	110	95	95
26	159	950	1,780	2,550	2,920	2,770	418	3,240	110	96	76	249
27	273	730	2,160	3,630	3,310	2,660	337	2,870	78	83	92	114
28	190	130	2,180	4,990	3,040	2,540	180	2,870	106	98	122	335
29	154	652	500	4,120	-------	2,030	153	2,750	103	73	112	107
30	213	108	892	3,340	-------	441	217	1,420	104	98	94	126
31	1,850	-------	1,310	3,090	-------	1,360	-------	1,720	-------	98	83	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,850	113	234	14,400
November	4,130	108	1,420	84,500
December	11,700	180	2,440	150,000
January	37,300	961	8,420	518,000
February	38,000	456	5,090	283,000
March	2,840	146	1,630	100,000
April	2,000	131	455	27,100
May	45,600	213	8,830	543,000
June	386	78	172	10,200
July	119	73	98.2	6,040
August	185	68	93.5	5,750
September	335	78	118	7,020
The year	45,600	68	2,420	1,750,000

LITTLE MISSOURI RIVER NEAR MURFREESBORO, ARK.

LOCATION.—Chain gage in SE. ¼ sec. 13, T. 8 S., R. 26 W., 1 mile below Muddy Creek and 2 miles southwest of Murfreesboro. Zero of gage is 323.70 feet above mean sea level.

DRAINAGE AREA.—380 square miles.

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

EXTREMES.—Maximum discharge during year, 26,000 second-feet May 3 (gage height, 14.00); minimum, 4 second-feet July 23, 24, 29, 31, Aug. 1–4, 29, 30.

1928–1930: Maximum discharge, that of May 3, 1930; minimum, that of 1930.

Maximum stage known, about 21 feet in April, 1927.

REMARKS.—Records good. Discharge estimated for Sundays, when gage was not read.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	880	102	263	710	790	234	108	284	17	4	55
2	11	458	108	1,670	750	640	224	101	243	11	4	22
3	9	330	120	1,080	790	490	215	26,000	196	36	4	22
4	12	205	101	790	15,400	458	187	4,000	178	14	4	22
5	22	136	101	650	3,730	425	178	2,080	152	19	5	14
6	40	114	95	525	2,220	458	150	2,080	144	17	5	11
7	55	89	253	790	1,540	375	128	4,730	152	12	5	9
8	36	95	420	2,840	1,080	317	120	2,080	120	9	5	7
9	26	89	595	13,500	900	290	114	1,670	95	14	7	7
10	22	100	490	3,920	710	263	101	1,540	84	9	6	8
11	19	108	413	2,220	630	234	95	1,880	84	11	5	7
12	43	136	363	5,000	560	215	89	2,220	73	7	7	6
13	60	1,420	305	7,740	490	196	86	1,540	63	8	26	8
14	73	790	274	5,150	425	196	84	1,080	63	8	17	8
15	47	525	300	2,520	388	187	84	750	57	7	12	22
16	36	525	1,190	1,670	360	190	89	7,740	51	7	9	14
17	26	560	2,080	1,300	328	205	160	5,820	51	7	7	22
18	26	595	2,680	880	305	253	114	5,350	47	6	6	22
19	24	425	1,420	800	284	630	84	4,940	40	6	7	17
20	22	363	980	710	263	458	74	2,370	36	5	5	12
21	19	295	710	980	253	388	63	1,480	29	5	7	10
22	22	274	580	1,080	1,540	317	59	1,080	26	5	7	8
23	15	243	458	790	1,300	440	55	4,940	24	4	7	7
24	17	220	425	790	1,080	560	55	1,800	24	4	6	8
25	12	187	363	710	1,030	630	51	1,000	22	5	6	9
26	14	169	295	1,300	1,420	525	51	835	19	6	6	36
27	16	160	305	1,940	1,080	425	120	630	22	5	5	84
28	17	84	317	1,540	1,190	363	187	560	19	5	5	50
29	19	101	280	1,190	-------	328	152	458	18	4	4	26
30	22	95	234	980	-------	300	114	400	17	5	4	19
31	2,220	-------	243	790	-------	274	-------	328	-------	4	10	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,220	9	97.2	5,980
November	1,420	84	326	19,400
December	2,680	95	535	32,900
January	13,500	263	2,130	131,000
February	15,400	253	1,460	81,100
March	790	187	381	23,400
April	234	51	117	6,960
May	26,000	101	2,950	181,000
June	284	17	81.1	4,830
July	36	4	9.1	560
August	26	4	7.0	430
September	84	6	19.1	1,140
The year	26,000	4	676	489,000

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 lower Mississippi River drainage basin during the years ending September 30, 1927, 1929, and 1930

Date	Stream	Tributary to—	Locality	Gage height	Discharge
				Feet	*Sec.-ft.*
1927					
June 23	Mississippi River	Gulf of Mexico	Memphis, Tenn	34.24	1,120,000
24	do	do	do	33.23	995,000
Aug. 15	do	do	do	15.41	369,000
Sept. 24	do	do	do	8.94	187,000
1930					
Aug. 5	do	do	do	2.87	117,000
July 24	Meramec Spring	Meramec River	6 miles southeast of St. James, Mo.	1.04	99
Aug. 6	Evans Spring	do	1½ miles southeast of Steelville, Mo.		2.6
1929					
Oct. 31	Middle Fork of Obion River.	Obion River	Near Dresden, Tenn	5.78	484
Nov. 1	do	do	do	7.52	830
7	do	do	do	2.54	81
1930					
Jan. 11	do	do	do	10.80	1,490
19	do	do	do	2.70	127
Feb. 27	do	do	do	3.58	227
Mar. 12	do	do	do	2.94	116
Apr. 23	do	do	do	2.42	73
Mar. 7	Swan Creek	White River	Forsyth, Mo	2.00	153
Apr. 15	do	do	do	1.38	47
May 31	do	do	do	1.34	67
July 29	do	do	do	.68	6.0
Aug. 28	do	do	do	.51	3.1
Sept. 23	do	do	do	.78	16
1929					
Apr. 5	Ninnescah River	Arkansas River	Belle Plaine, Kans	3.0	289
June 13	do	do	do	4.1	476
Sept. 11	do	do	do	2.42	107
Oct. 18	do	do	do		101

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